AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Southern District of Florida on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
12-cv-81183-KAM	10/24/2012	Southern District of Florida

PLAINTIFF	DEFENDANT
Micron Electronics, LLC	M2M Solutions, LLC

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	
2	8,094,010	1/10/2012	
3			
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading		
	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1			
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
	Bonnie J. Bernard	10/25/2012

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Southern District of Florida on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
12-cv-23876-Moreno	10/24/2012	Southern District of Florida

PLAINTIFF	DEFENDANT
ArrivalStar S.A. et al	Groupon, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	6,952,645 BI	10/4/2005	
2	7,400,970 B2	7/15/2008	
3	6,904,359 B2	6/7/2005	
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading		
	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
Steven M. Larimore	Valerie Kemp	10/24/2012

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Portland, Maine on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
2:12-CV-333-DBH	10/30/2012	Portland, Maine

PLAINTIFF	DEFENDANT
Surfcast Inc	Microsoft Corporation

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 US 6,724,403 B1	4/20/2004	Surfcast Inc
2 US 7,933,632 B2	4/26/2011	Microsoft Corporation
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
Christa K. Berry	/s/ Robert Allen	10/31/2012

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	SIERRA WIRELESS AMERICA, INC., SIERRA WIRELESS, INC.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
3			
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the Eastern District of Virginia on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT for the Eastern District of Virginia
PLAINTIFF Automated Tracking Solutions, LLC		DEFENDANT SimplyRFiD, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,551,089	6/23/2009	Automated Tracking Solutions
2	7,834,765	11/16/2010	Automated Tracking Solutions
3	7,834,766	11/16/2010	Automated Tracking Solutions
4	6,933,849	8/23/2005	Automated Tracking Solutions
5			

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	CINTERION WIRELESS MODULES GMBH, CINTERION WIRELESS MODULES NAFTA LLC, GEMALTO N.V.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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AO 120 (Rev. 08/10)

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Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	ENFORA, INC., NOVATEL WIRELESS SOLUTIONS, INC., NOVATEL WIRELESS, INC.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

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Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Oregon on the following

☑ Trademarks or ☐ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
3:11-cv-1060	8/31/2011	Oregon

PLAINTIFF	DEFENDANT
Metabolic Maintenance Products, Inc.	St. Ives Laboratories, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	2,869,793	8/3/2004	Metabolic Maintenance Products, Inc.
2	2,183,138	8/18/1998	"
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
Mary L Moran		

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	MOTOROLA SOLUTIONS, INC., TELIT COMMUNICATIONS PLC, TELIT WIRELESS SOLUTIONS INC.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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AO 120 (Rev. 08/10)

TO:	Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	SIMCOM WIRELESS SOLUTIONS CO., LTD., SIM TECHNOLOGY GROUP LTD.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

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DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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AO 120 (Rev. 08/10)

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Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	CINTERION WIRELESS MODULES GMBH, CINTERION WIRELESS MODULES NAFTA LLC, GEMALTO N.V.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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AO 120 (Rev. 08/10)

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Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
	1/13/2012	for the District of Delaware

PLAINTIFF	DEFENDANT
M2M SOLUTIONS, LLC	ENFORA, INC., NOVATEL WIRELESS SOLUTIONS, INC., NOVATEL WIRELESS, INC.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	7,583,197	9/1/2009	M2M Solutions, LLC
2	8,094,010	1/10/2012	M2M Solutions, LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

Mail Date: 04/27/2010

Applicant	: Eveline Wesby Van Swaay	: DECISION ON REQUEST FOR
Patent Number	: 7583197	: RECALCULATION of PATENT
Issue Date	: 09/01/2009	: TERM ADJUSTMENT IN VIEW
Application No	: 11/329,212	: OF WYETH AND NOTICE OF INTENT TO
Filed	: 01/10/2006	: ISSUE CERTIFICATE OF CORRECTION
		:

The Request for Recalculation is **GRANTED** to the extent indicated.

The patent term adjustment has been determined to be **0** days. The USPTO will *sua sponte* issue a certificate of correction reflecting the amount of PTA days determined by the recalculation.

Prior to the issuance of the certificate of correction, the USPTO will afford patentee an opportunity to be heard and request reconsideration. Accordingly, patentee has **one month or thirty (30) days**, whichever is longer, to file a request for reconsideration of this patent term adjustment calculation. See 35 U.S.C. 154(b)(3)(B)(ii) and 37 CFR 1.322(a)(4). No extensions of time will be granted under 37 CFR 1.136.

Patentee should use document code PET.OP if electronically filing a request for reconsideration of this patent term adjustment calculation. The patentee must also include the information required by 37 CFR 1.705(b)(2) and the fee required by 37 CFR 1.18(e). If patentee does not file a timely request for reconsideration of this patent term adjustment calculation including the information required by 37 CFR 1.705(b)(2) and the fee required by 37 CFR 1.18(e), the USPTO will issue a certificate of correction reflecting the PTA determination noted above.

Patentee should be aware that in order to preserve the right to review in the United States District Court for the District of Columbia of the USPTO patent term adjustment determination, patentee must ensure that he or she also take the steps required under 35 U.S.C. 154(b)(4)(A) in a timely manner. Nothing in the request for recalculation should be construed as providing an alternative time frame for commencing a civil action under 35 U.S.C. 154(b)(4)(A).

Any questions concerning this decision should be directed to the Office of Patent Legal Administration at 571-272-7702.

PTO/SB/131 (01-10)
Approved for use through 02/28/2011. OMB 0651-0020
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE

REQUEST FOR RECALCULATION OF PATENT TERM ADJUSTMENT IN VIEW OF *WYETH**

Attorney Docket Number: 1503/105	Patent Number: 7,583,197
Filing Date (or 371(b) or (f) Date): January 10, 2006	Issue Date: September 1, 2009
First Named Inventor: Wesby-van Swaay, Eveline	
Title: Programmable Communicator	

PATENTEE HEREBY REQUESTS RECALCULATION OF THE PATENT TERM ADJUSTMENT (PTA) UNDER 35 USC 154(b) INDICATED ON THE ABOVE-IDENTIFIED PATENT. THE PATENTEE'S SOLE BASIS FOR REQUESTING THE RECALCULATION IS THE USPTO'S PRE-*WYETH* INTERPRETATION OF 35 U.S.C. 154(b)(2)(A).

Note: This form is only for requesting a recalculation of PTA for patents issued before March 2, 2010, if the sole basis for requesting the recalculation is the USPTO's pre-*Wyeth* interpretation of 35 U.S.C. 154(b)(2)(A). See Instruction Sheet on page 2 for more information.

Patentees are reminded that to preserve the right to review in the United States District Court for the District of Columbia of the USPTO's patent term adjustment determination, a patentee must ensure that he or she also takes the steps required under 35 U.S.C. 154(b)(3) and (b)(4) and 37 CFR 1.705 in a timely manner.

**Wyeth v. Kappos*, No. 2009-1120 (Fed. Cir., Jan. 7, 2010).

Signature /Jonathan C. Lovely, #60,821/	Date February 9, 2010
Name (Print/Typed) Jonathan C. Lovely	Registration Number 60,821

Note: *Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the form of the signature. If necessary, submit multiple forms for more than one signature, see below*.*

☑ *Total of 1 forms are submitted.

PTO/SB/131 (01-10)
Approved for use through 02/28/2011. OMB 0651-0020
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE

Instruction Sheet for: REQUEST FOR RECALCULATION OF PATENT TERM ADJUSTMENT IN VIEW OF *WYETH**

(Not to be Submitted to the USPTO)

This form is only for requesting a recalculation of PTA for patents issued before March 2, 2010, if the sole basis for requesting the recalculation is the USPTO's pre-*Wyeth* interpretation of 35 U.S.C. 154(b)(2)(A).

This form must be filed within 180 days of the day the patent was granted, with the following exception:

> Patentees who received a decision from the USPTO under the USPTO's pre-Wyeth interpretation of 35 U.S.C. 154(b)(2)(A) may file a request for reconsideration of that decision if such a request for reconsideration is filed within **two months** of the date of the decision (37 CFR 1.181(f)). If the patentee's sole basis for requesting reconsideration of the decision is the USPTO's pre-Wyeth interpretation of 35 U.S.C. 154(b)(2)(A), the request for reconsideration need only state that reconsideration is being requested in view of Wyeth (this form may be used for this purpose if it is filed within **two months** of the date of the decision from the USPTO).

Do not use this form if the application has been allowed, but not yet issued as a patent.

1. **For patents issued before March 2, 2010:** A request for reconsideration under 37 CFR 1.705(d) and the fee set forth in 37 CFR 1.18(e) are not required, provided that the patentee's sole basis for requesting recalculation of the PTA in the patent is the USPTO's pre-*Wyeth* interpretation of 35 U.S.C. 154(b)(2)(A) and this form is filed within 180 days of the day the patent was granted.

2. **For patents issued on or after March 2, 2010 (do not use this form):** Patentees seeking a revised PTA in a patent issued on or after March 2, 2010, must file a request for reconsideration under 37 CFR 1.705(d) that complies with the requirements of 37 CFR 1.705(b)(1) and (b)(2) within two months of the day the patent issued.

For more information, see "Notice Concerning Calculation of the Patent Term Adjustment With Respect to the Overlapping Delay Provision of 35 U.S.C. 154(b)(2)(A)" available on the USPTO Web site at http://www.uspto.gov/patents/law/notices/2010.jsp.

**Wyeth v. Kappos*, No. 2009-1120 (Fed. Cir., Jan. 7, 2010).

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	6975182
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	PROGRAMMABLE COMMUNICATOR
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	09-FEB-2010
Filing Date:	10-JAN-2006
Time Stamp:	12:24:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	JCL_1503_105_PTARecalculation.pdf	49541 c97c57cd25c894796d9238b658c1768a7098c4bc	no	3

Warnings:	
Information:	

Total Files Size (in bytes):	49541

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	09/01/2009	7583197	1503/105	6667

2101 7590 08/12/2009

Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Eveline Wesby Van Swaay, Tiddington, UNITED KINGDOM;

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: January 10, 2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF PAYMENT OF ISSUE FEE (37 C.F.R. § 1.311)
AND PAYMENT OF PUBLICATION FEE ((37 C.F.R. § 1.211(e))

1. Applicant hereby pays the issue fee for the attached Issue Fee Transmittal PTOL-85.

2. Applicant

A. Asserted small entity status in this application on January 10, 2006 by payment of the basic filing fee as a small entity. (37 C.F.R. § 1.27(c)(3))

It is confirmed that small entity status for this application has been checked and it is still in effect and is being asserted.

3. Fee (Issue):

Application status is small business entity with a utility fee of $755.00.

4. Fees (Publication)

This is an application for a utility patent and:

The publication fee of $ 300.00 (§ 1.18(d) is being paid herewith.

5. Advance Order of Copies

Number of copies ordered 3 x $3.00 per copy (37 C.F.R. § 1.19(a)(1): $9.00

6. Total Fees Due

The total amount of fees due is:

issue fee		$755.00
publication fee		$300.00
additional copies		$9.00
TOTAL FEE(S) DUE	$1,064.00	

7. Payment of total fee due:

Authorization is hereby made to charge the amount of $1,064.00 to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

Date: July 20, 2009

/Jonathan C. Lovely, Reg. #60,821/
Jonathan C. Lovely
Registration No. 60,821
BROMBERG & SUNSTEIN LLP
125 Summer Street
Boston, MA 02110-1618
US
617-443-9292
Customer No. 02101

01503/00105 1116621.1

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

2101 7590 06/11/2009

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

TITLE OF INVENTION: PROGRAMMABLE COMMUNICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	09/11/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, NAM V	2612	340-005220

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 Bromberg & Sunstein LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:
☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies 3

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 194972 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Jonathan C. Lovely, Reg.#60,821/ Date July 20, 2009

Typed or printed name Jonathan C. Lovely Registration No. 60,821

Electronic Patent Application Fee Transmittal

Application Number:	11329212
Filing Date:	10-Jan-2006
Title of Invention:	PROGRAMMABLE COMMUNICATOR
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Filer:	Jonathan Lovely
Attorney Docket Number:	1503/105

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	755	755
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	3	3	9
		Total in USD ($)		**1064**

Electronic Acknowledgement Receipt

EFS ID:	5731398
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	PROGRAMMABLE COMMUNICATOR
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	20-JUL-2009
Filing Date:	10-JAN-2006
Time Stamp:	14:59:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1064
RAM confirmation Number	1067
Deposit Account	194972
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	klw1503105_IssueFee.pdf	274019 86e024aef71cfbc03cc9ef37b07f7501528456e3	no	3
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	33705 db14d9f231f7ffa7b15d323c8603ecfd9c6536a1	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	307724		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Eveline Wesby Van Swaay	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	~~2635~~ 2612
Date Filed:	January 10, 2006	Examiner Name:	~~N/A~~ NAM NGUYEN
Invention:	Programmable Communicator		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	Reference Number	Document Number	Issue Date	Inventor	Class/Subclass
M	AQ	US 4,908,853	03-13-1990	Matsumoto	379/355.09
	AR	US 5,293,418	03-08-1994	Fakawa	455/566
	AS	US 5,548,271	08-1996	Tsuchiyama et al	340/7.61
	AT	US 5,581,599	12-1996	Tsuji et al	455/415
	AU	US 5,623,533	04-22-1997	Kikuchi et al	455/572
	AV	US 5,742,666	04-21-1998	Alpert	455/404.2
	AW	US 5,903,634	05-11-1999	Wakabayashi et al	379/354
	AX	US 5,946,636	08-1999	Ueno et al	~~455.566~~ 455/566
	AY	US 6,041,229	03-21-2000	Turner	455/420
	AZ	US 6,125,273	09-2000	Yamagishi, Harumi	455/411

AE 7-7-09

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Reference Number	Country Code	Document Number	Publication Date	Patentee or Applicant	Class/Subclass
M	BA	JP	07087211 A	03-31-1995	Fuji Facon Corp.	H04M01100
M	BB	WO	97/23104	06-26-1997	Valentine	H04Q 7/22

Examiner Signature: [signature]

Date Considered: 7/17/09

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

2101 7590 06/11/2009

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
NGUYEN, NAM V	
ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 06/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

TITLE OF INVENTION: PROGRAMMABLE COMMUNICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	09/11/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

2101 7590 06/11/2009

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

TITLE OF INVENTION: PROGRAMMABLE COMMUNICATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	09/11/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, NAM V	2612	340-005220

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

2101 7590 06/11/2009

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
NGUYEN, NAM V	
ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 06/11/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/329,212	VAN SWAAY, EVELINE WESBY	
	Examiner	Art Unit	
	Nam V. Nguyen	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *4/16/09*.

2. ☒ The allowed claim(s) is/are *21-59 and 71-165*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/N. V. N./
Examiner, Art Unit 2612

Allowable Subject Matter

This communication is in response to applicant's amendment which is filed April 16, 2009 in the application of Van Swaay for a "programmable communicator" filed January 10, 2006.

The proposed amendment has been entered and made of record.

Claims 60-71 have been cancelled. The new set of claims 71-165 have been introduced.

Applicant's amendment with respect to the pending claims 71-165, filed April 16, 2009, places the application in condition for allowance.

Claims 21-59 and 71-165 are allowed as evident by applicant's amendment.

The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or suggest limitations that the programmable communicator device includes a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including a coded number and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by comparing the coded number with a preset number, the processing module authenticating the at least one transmission if the coded number matches the preset number; and a memory module

configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the coded number matches the preset number.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Brian Zimmerman can be reached on 571- 272-3059. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/N. V. N./
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	Art Unit
	Nam V Nguyen	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009	05/14/2009					
	1	-	-	-	-					
	2	-	-	-	-					
	3	-	-	-	-					
	4	-	-	-	-					
	5	-	-	-	-					
	6	-	-	-	-					
	7	-	-	-	-					
	8	-	-	-	-					
	9	-	-	-	-					
	10	-	-	-	-					
	11	-	-	-	-					
	12	-	-	-	-					
	13	-	-	-	-					
	14	-	-	-	-					
	15	-	-	-	-					
	16	-	-	-	-					
	17	-	-	-	-					
	18	-	-	-	-					
	19	-	-	-	-					
	20	-	-	-	-					
1	21	✓	✓	=	=					
2	22	✓	✓	=	=					
3	23	✓	✓	=	=					
4	24	✓	✓	=	=					
5	25	✓	✓	=	=					
6	26	✓	✓	=	=					
7	27	✓	✓	=	=					
8	28	✓	✓	=	=					
9	29	✓	✓	=	=					
10	30	✓	✓	=	=					
11	31	✓	✓	=	=					
12	32	✓	✓	=	=					
13	33	✓	✓	=	=					
14	34	✓	✓	=	=					
15	35	✓	✓	=	=					
16	36	✓	✓	=	=					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009	05/14/2009					
17	37	✓	✓	=	=					
18	38	✓	✓	=	=					
19	39	✓	✓	=	=					
20	40	✓	✓	=	=					
21	41	✓	✓	=	=					
22	42	✓	✓	=	=					
23	43	✓	✓	=	=					
24	44	✓	✓	=	=					
25	45	✓	✓	=	=					
26	46	✓	✓	=	=					
27	47	✓	✓	=	=					
28	48	✓	✓	=	=					
29	49	✓	✓	=	=					
30	50	✓	✓	=	=					
31	51	✓	✓	=	=					
32	52	✓	✓	=	=					
33	53	✓	✓	=	=					
34	54	✓	✓	=	=					
35	55	✓	✓	=	=					
36	56	✓	✓	=	=					
37	57	✓	✓	=	=					
38	58	✓	✓	=	=					
39	59	✓	✓	=	=					
	60	✓	✓	✓	-					
	61	✓	✓	✓	-					
	62	✓	✓	✓	-					
	63	✓	✓	✓	-					
	64	✓	✓	✓	-					
	65	✓	✓	✓	-					
	66	✓	✓	✓	-					
	67	✓	✓	✓	-					
	68	✓	✓	✓	-					
	69	✓	✓	✓	-					
	70	✓	✓	✓	-					
40	71				=					
41	72				=					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009	05/14/2009					
42	73				=					
43	74				=					
44	75				=					
45	76				=					
46	77				=					
47	78				=					
48	79				=					
49	80				=					
50	81				=					
51	82				=					
52	83				=					
53	84				=					
54	85				=					
55	86				=					
56	87				=					
57	88				=					
58	89				=					
59	90				=					
60	91				=					
61	92				=					
62	93				=					
63	94				=					
64	95				=					
65	96				=					
66	97				=					
67	98				=					
68	99				=					
69	100				=					
70	101				=					
71	102				=					
72	103				=					
73	104				=					
74	105				=					
75	106				=					
76	107				=					
77	108				=					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009	05/14/2009					
78	109				=					
79	110				=					
80	111				=					
81	112				=					
82	113				=					
83	114				=					
84	115				=					
85	116				=					
86	117				=					
87	118				=					
88	119				=					
89	120				=					
90	121				=					
91	122				=					
92	123				=					
93	124				=					
94	125				=					
95	126				=					
96	127				=					
97	128				=					
98	129				=					
99	130				=					
100	131				=					
101	132				=					
102	133				=					
103	134				=					
104	135				=					
106	136				=					
107	137				=					
108	138				=					
109	139				=					
110	140				=					
111	141				=					
112	142				=					
113	143				=					
114	144				=					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009	05/14/2009					
115	145				=					
116	146				=					
117	147				=					
118	148				=					
119	149				=					
120	150				=					
121	151				=					
122	152				=					
123	153				=					
124	154				=					
125	155				=					
126	156				=					
127	157				=					
128	158				=					
129	159				=					
130	160				=					
131	161				=					
132	162				=					
133	163				=					
134	164				=					
135	165				=					

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

ORIGINAL		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
340	573.4	G 0 8 B 23 / 00 (2006.01.01)	
CROSS REFERENCE(S)		G 0 8 B 1 / 08 (2006.01.01)	
		G 0 8 B 23 / 00 (2006.01.01)	

CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
340	539.1	693.5	5.61		
455	456.1	456.2	418	419	425

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	21	21	41	41	72	61	92	81	112	101	132	121	152		
2	22	22	42	42	73	62	93	82	113	102	133	122	153		
3	23	23	43	43	74	63	94	83	114	103	134	123	154		
4	24	24	44	44	75	64	95	84	115	104	135	124	155		
5	25	25	45	45	76	65	96	85	116	105	136	125	156		
6	26	26	46	46	77	66	97	86	117	106	137	126	156		
7	27	27	47	47	78	67	98	87	118	107	138	127	158		
8	28	28	48	48	79	68	99	88	119	108	139	128	159		
9	29	29	49	49	80	69	100	89	120	109	140	129	160		
10	30	30	50	50	81	70	101	90	121	110	141	130	161		
11	31	31	51	51	82	71	102	91	122	111	142	131	162		
12	32	32	52	52	83	72	103	92	123	112	143	132	163		
13	33	33	53	53	84	73	104	93	124	113	144	133	164		
14	34	34	54	54	85	74	105	94	125	114	145	134	165		
15	35	35	55	55	86	75	106	95	126	115	146				
16	36	36	56	56	87	76	107	96	127	116	147				

/Nam V Nguyen/ Examiner.Art Unit 2612	5/14/09	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	134	
		O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	21	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	Nam V Nguyen	2612

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

17	37	37	57	57	88	77	108	97	128	117	148				
18	38	38	58	58	89	78	109	98	129	118	149				
19	39	39	59	59	90	79	110	99	130	119	150				
20	40	40	71	60	91	80	111	100	131	120	151				

/Nam V Nguyen/ Examiner.Art Unit 2612	5/14/09	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	134	
		O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	21	1

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	NAM NGUYEN	2612

SEARCHED

Class	Subclass	Date	Examiner
340	573.4; 539; 693.5; 825.32; 825.49;	5/14/09	NN
455	456.1; 456.2;418-419; 425	5/14/09	NN
379	142; 373;375	5/14/09	NN

SEARCH NOTES

Search Notes	Date	Examiner
Search EAST: US-PUB; USPAT; EPO; JPO and Derwent.(updated search).	5/14/09	NN
Search Term: authorized list in cellular phone with monitoring device or sensor; monitoring central station. stored telephone/ip address in memory when a valid id received.	5/14/09	NN

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner
SAME AS	ABOVE	5/14/09	NN

/N. V. N./ Examiner.Art Unit 2612	

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: January 10, 2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TRANSMITTAL

1. Transmitted herewith is a response for this application.

STATUS

2. Applicant asserts small entity status.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for one month:

Fee: $65.00

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col. 1)		(Col. 2)		(Col. 3)		SMALL ENTITY			
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE			ADDIT. FEE
TOTAL	134	–	50	=	84	x	$ 26.00	=	$	2,184.00
INDEP.	6	–	4	=	2	x	$ 110.00	=	$	220.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM						+	$ 0.00	=	$	0.00
							TOTAL ADDIT. FEE		$	2,404.00

Total additional fee for claims required $2,404.00

FEE PAYMENT

5. Authorization is hereby made to charge the amount of $2,469.00 to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

FEE DEFICIENCY

6. If an additional extension and/or fee is required, charge Account No. 19-4972.

If an additional fee for claims is required, charge Account No. 19-4972.

Date: April 16, 2009

/Jonathan C. Lovely, #60,821/
Jonathan C. Lovely
Registration No. 60,821
BROMBERG & SUNSTEIN LLP
125 Summer Street
Boston, MA 02110-1618
US
617-443-9292
Customer No. 02101

01503/00105 1070231.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

FILED BY USPTO ELECTRONIC FILING SYSTEM

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE

Dear Sir:

Applicant respectfully submits this Amendment in response to the Office Action dated January 7, 2009 and requests that the following amendments and remarks be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 23 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (Previously Presented) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier that is unique to the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including the unique identifier and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the at least one transmission includes the unique identifier.

22. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (Previously Presented) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmits the at least one signal representative of the programmable communicator~~'s~~ device's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator device based on the at least one signal.

26. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (Previously Presented) A programmable communicator device according to claim 27, wherein the attachment is a wrist strap.

29. (Previously Presented) A programmable communicator device according to claim 27, wherein the attachment is a smart clothes attachment.

30. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

31. (Previously Presented) A programmable communicator device according to claim 21 wherein the programmable communicator device is linked to at least one remote device.

32. (Previously Presented) A programmable communicator device according to claim 31, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (Previously Presented) A programmable communicator device according to claim 32, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (Previously Presented) A programmable communicator device according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (Previously Presented) A programmable communicator device according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (Previously Presented) A programmable communicator device according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

37. (Previously Presented) A programmable communicator device according to claim 36, further comprising:

an alarm module configured to send an alarm message to the at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is further configured to communicate between the at least one monitoring device and at least one interfaced device.

39. (Previously Presented) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (Previously Presented) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (Previously Presented) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

42. (Previously Presented) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one interfaced device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (Previously Presented) A programmable communicator device according to claim 42, wherein the gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching

network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (Previously Presented) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (Previously Presented) A programmable communicator device according to claim 21, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (Previously Presented) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module having a unique identifier;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring device as one of a plurality of permitted callers, the at least one telephone number or IP address received in a first transmission containing the unique identifier; and

a processing module authenticating the first transmission by determining if the transmission includes the unique identifier, the memory module storing the at least one telephone number or IP address of the at least one remote monitoring device if the processing module authenticates the first transmission by determining that the first transmission includes the unique identifier, the processing module communicating with the at least one interfaced device through the wireless communications circuit and configured to receive data from the at least one interfaced device and determine if the

received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a second transmission to the at least one remote monitoring device if the change in status crosses the threshold, the second transmission including the unique identifier.

50. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (Previously Presented) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (Previously Presented) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (Previously Presented) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60-70. (Cancelled)

71. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including a coded number and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by comparing the coded number with a preset number, the processing module authenticating the at least one transmission if the coded number matches the preset number; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the coded number matches the preset number.

72. (New) A programmable communicator device according to claim 71 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

73. (New) A programmable communicator device according to claim 71 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

74. (New) A programmable communicator device according to claim 71 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

75. (New) A programmable communicator device according to claim 74, wherein the attachment is a wrist strap.

76. (New) A programmable communicator device according to claim 74, wherein the attachment is a smart clothes attachment.

77. (New) A programmable communicator device according to claim 71 wherein the programmable communicator device is linked to at least one remote device.

78. (New) A programmable communicator device according to claim 77, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

79. (New) A programmable communicator device according to claim 78, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

80. (New) A programmable communicator device according to claim 79, wherein the stored monitored parameter data is relayed periodically.

81. (New) A programmable communicator device according to claim 79, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

82. (New) A programmable communicator device according to claim 78, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

83. (New) A programmable communicator device according to claim 82, further comprising:

an alarm module configured to send an alarm message to the at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

84. (New) A programmable communicator device according to claim 71, wherein the programmable communicator device is further configured to communicate between the at least one monitoring device and at least one interfaced device.

85. (New) A programmable communicator device according to claim 84, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

86. (New) A programmable communicator device according to claim 84, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

87. (New) A programmable communicator device according to claim 84, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

88. (New) A programmable communicator device according to claim 87, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one interfaced

device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

89. (New) A programmable communicator device according to claim 88, wherein the gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

90. (New) A programmable communicator device according to claim 71, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

91. (New) A programmable communicator device according to claim 71, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

92. (New) A programmable communicator device according to claim 71, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

93. (New) A programmable communicator device according to claim 71, wherein the programming transmitter is a portable device connected to the communications network.

94. (New) A programmable communicator device according to claim 71 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmit the at least one signal representative of the programmable communicator device's location to a location determination center in response to the authenticated location request, the location determination center configured to determine the location of the programmable communicator device based on the at least one signal.

95. (New) A programmable communicator device according to claim 71 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

96. (New) A programmable communicator device according to claim 71, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

97. (New) A programmable communicator device according to claim 71, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

98 (New) A programmable communicator device according to claim 71, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

99. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable interface connected to the at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring device as one of a plurality of permitted callers; and

a processing module authenticating a first transmission containing a coded number, the processing module authenticating the first transmission by comparing the coded number to a preset number, the memory module storing the at least one telephone number or IP address of the at least one remote monitoring device if the coded number matches the preset number, the processing module communicating with the at least one interfaced device through the wireless communications circuit and configured to receive data from the at least one interfaced device and determine if the received data indicates a

change in status of the at least one interfaced device that crosses a threshold, wherein the processing module is further configured to send a second transmission to the at least one remote monitoring device if the change in status crosses the threshold.

100. (New) A programmable communicator device according to claim 99, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

101. (New) A programmable communicator device according to claim 99, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

102. (New) A programmable communicator device according to claim 99, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

103. (New) A programmable communicator device according to claim 99, wherein the data received from the at least one interfaced device is sent periodically.

104. (New) A programmable communicator device according to claim 99, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

105. (New) A programmable communicator device according to claim 99, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

106. (New) A programmable communicator device according to claim 99, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

107. (New) A programmable communicator device according to claim 99, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

108. (New) A programmable communicator device according to claim 99, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

109. (New) A programmable communicator device according to claim 99, wherein the programming transmitter is a device having a web interface.

110. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier that is unique to the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including a coded number and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by comparing the coded number with a preset number, the processing module authenticating the at least one transmission if the coded number matches the preset number; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the coded number matches the preset number.

111. (New) A programmable communicator device according to claim 110, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

112. (New) A programmable communicator device according to claim 110, wherein the programming transmitter is a portable device connected to the communications network.

113. (New) A programmable communicator device according to claim 110 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

114. (New) A programmable communicator device according to claim 110 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmit the at least one signal representative of the programmable communicator device's location to a location determination center in response to the authenticated location request, the location determination center configured to determine the location of the programmable communicator device based on the at least one signal.

115. (New) A programmable communicator device according to claim 110 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

116. (New) A programmable communicator device according to claim 110 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

117. (New) A programmable communicator device according to claim 116, wherein the attachment is a wrist strap.

118. (New) A programmable communicator device according to claim 116, wherein the attachment is a smart clothes attachment.

119. (New) A programmable communicator device according to claim 110 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

120. (New) A programmable communicator device according to claim 110 wherein the programmable communicator device is linked to at least one remote device.

121. (New) A programmable communicator device according to claim 120, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

122. (New) A programmable communicator device according to claim 121, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

123. (New) A programmable communicator device according to claim 122, wherein the stored monitored parameter data is relayed periodically.

124. (New) A programmable communicator device according to claim 122, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

125. (New) A programmable communicator device according to claim 120, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

126. (New) A programmable communicator device according to claim 125, further comprising:

an alarm module configured to send an alarm message to the at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

127. (New) A programmable communicator device according to claim 110, wherein the programmable communicator device is further configured to communicate between the at least one monitoring device and at least one interfaced device.

128. (New) A programmable communicator device according to claim 127, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

129. (New) A programmable communicator device according to claim 127, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

130. (New) A programmable communicator device according to claim 127, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

131. (New) A programmable communicator device according to claim 130, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one interfaced device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

132. (New) A programmable communicator device according to claim 131, wherein the gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

133. (New) A programmable communicator device according to claim 110, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

134. (New) A programmable communicator device according to claim 110, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

135. (New) A programmable communicator device according to claim 110, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

136 (New) A programmable communicator device according to claim 110, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

137 (New) A programmable communicator device according to claim 110, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

138. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier that is unique to the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including a coded number and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the coded number, the processing module authenticating the at least one transmission if the transmission includes the coded number; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the at least one transmission includes the coded number.

139. (New) A programmable communicator device according to claim 138, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

140. (New) A programmable communicator device according to claim 138, wherein the programming transmitter is a portable device connected to the communications network.

141. (New) A programmable communicator device according to claim 138 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

142. (New) A programmable communicator device according to claim 138 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmit the at least one signal representative of the programmable communicator device's location to a location determination center in response to the authenticated location request, the location determination center configured to determine the location of the programmable communicator device based on the at least one signal.

143. (New) A programmable communicator device according to claim 138 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a

transmission to at least one of the plurality of stored permitted callers in response to the prompt.

144. (New) A programmable communicator device according to claim 138 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

145. (New) A programmable communicator device according to claim 144, wherein the attachment is a wrist strap.

146. (New) A programmable communicator device according to claim 144, wherein the attachment is a smart clothes attachment.

147. (New) A programmable communicator device according to claim 138 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

148. (New) A programmable communicator device according to claim 138 wherein the programmable communicator device is linked to at least one remote device.

149. (New) A programmable communicator device according to claim 148, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

150. (New) A programmable communicator device according to claim 149, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

151. (New) A programmable communicator device according to claim 150, wherein the stored monitored parameter data is relayed periodically.

152. (New) A programmable communicator device according to claim 150, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

153. (New) A programmable communicator device according to claim 149, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

154. (New) A programmable communicator device according to claim 153, further comprising:

an alarm module configured to send an alarm message to the at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

155. (New) A programmable communicator device according to claim 138, wherein the programmable communicator device is further configured to communicate between the at least one monitoring device and at least one interfaced device.

156. (New) A programmable communicator device according to claim 155, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

157. (New) A programmable communicator device according to claim 155, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

158. (New) A programmable communicator device according to claim 155, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

159. (New) A programmable communicator device according to claim 158, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one interfaced

device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

160. (New) A programmable communicator device according to claim 159, wherein the gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

161. (New) A programmable communicator device according to claim 138, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

162. (New) A programmable communicator device according to claim 138, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

163. (New) A programmable communicator device according to claim 138, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

164. (New) A programmable communicator device according to claim 138, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

165. (New) A programmable communicator device according to claim 138, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

REMARKS

Applicant wishes to thank the Examiner for the review of the present Application and for finding claims 21-59 allowable. Applicant previously cancelled claims 1-20 and added claims 21-70. Applicant now cancels claims 60-70 and adds new claims 71-165 herewith. Thus, claims 21-59 and 71-165 are currently pending in the application.

As discussed in greater detail below, Applicants would like to inform the Examiner that out of the new claims, there are only 4 new independent claims (71, 99, 110,138). Each of the new independent claims are very similar to the presently allowed independent claims (21 and 49) but are deemed necessary to provide the Applicant with more complete coverage of the Applicant's invention. The additional dependent claims (72-98, 100-109, 111-137, and 139-165) add features to the new independent claims that are identical to the features added by the presently allowed dependent claims. As found in the presently allowed claims, all of the new independent claims differentiate the claimed programmable communicator from the prior art by emphasizing the combination of *the programmable interface and an authentication process*. The claims are supported by the application and claims as filed within the original PCT filing and U.S. Patent Application 10/296,571 to which the present application claims priority. Applicant believes that the combination of the programmable interface and authentication process is not found in the prior art.

New Claims 71-165

Applicant has added new independent claims 71, 99, 110, and 138, as well as corresponding dependent claims 72-98, 100-109, 111-137, and 139-168. Support for the new claims can be found at, among other places, paragraphs 22, 24, 26, 29-31, 33, 36-38, 41, 43-46, 49, 51, 53, 63, 68, 72, 82, 84, 87-94, 96, and 97 of the published application (US Publication Number 2006/0119468). Applicant would also like to specifically direct the Examiner's attention to paragraphs 29, 68, and 70 which provide support for the

terms "coded number" and "preset number." Additionally, Applicant would like to note that the terms "coded number" and "preset number" are clearly contained within the claims of PCT Application PCT/EP01/05738 and U.S. Patent Application 10/296,571, to which the present application claims priority.

Applicant would also like to point out that the new claims are generally based on the allowed claims and merely provide more complete coverage of Applicant's invention. In particular, new independent claims 71, 110, and 138 are generally based on allowed claim 21 and new independent claim 99 is generally based upon allowed claim 49. Additionally, new dependent claims 72-98, 111-137, and 139-168 are based upon allowed claims 22-48 and new dependent claims 100-109 are based upon allowed claims 50-59. Any differences between each new independent claim and either claim 21 or 49 are listed below.

New claim 71 (generally based upon allowed claim 21):

- Claim 71 does not include a programmable identity module having a unique identifier.
- New claim 71 replaces the unique identifier within claim 21 with a coded number. In particular, in new claim 71, the transmission received by the processing module includes a coded number and at least one telephone number or IP address corresponding to at least one monitoring device.
- The processing module in claim 71 authenticates the transmission by comparing the coded number to a preset number.

New Claim 99 (generally based upon allowed claim 49)

- Claim 99 does not include a programmable identity module having a unique identifier.
- New claim 99 replaces the unique identifier within claim 49 with a coded number. In particular, in new claim 99, the transmission received by the processing module includes a coded number and at least one telephone number or IP address corresponding to at least one monitoring device.

- The processing module within claim 99 authenticates the transmission by comparing the coded number to a preset number.
- Unlike claim 49, claim 99 does not include the second transmission including the unique identifier.

New claim 110 (generally based upon allowed claim 21):

- New claim 110 replaces the unique identifier (e.g., within the received transmission) within claim 21 with a coded number. In particular, in new claim 110, the transmission received by the processing module includes a coded number and at least one telephone number or IP address corresponding to at least one monitoring device.
- The processing module within new claim 110 authenticates the transmission by comparing the coded number to a preset number.

New claim 138 (generally based upon allowed claim 21):

- New claim 138 replaces the unique identifier (e.g., within the received transmission) within claim 21 with a coded number. In particular, in new claim 138, the transmission received by the processing module includes a coded number and at least one telephone number or IP address corresponding to at least one monitoring device.
- The processing module within claim 138 authenticates the transmission by determining if the transmission includes the coded number.

Additionally, Applicant would like to note that, like allowed claims 21-59, the new claims still contain features that distinguish the claims from the prior art. For example, as discussed in greater detail below, each of the new claims contain a programmable interface and an authentication process not taught by the prior art.

New independent claim 71 describes a programmable communicator device having, among other things, a wireless communications circuit, a programmable interface, a processing module, and a memory module. The programmable interface is

connected to at least one wired or wirelessly attached monitoring device. The processing module receives and authenticates transmissions from a programming transmitter by comparing the coded number within the transmission with a preset number. If the coded number matches the preset number, the processing module authenticates the transmission and the memory module stores at least one telephone number or IP address contained within the transmission as one of a plurality of permitted callers.

The prior art of record fails to teach or suggest the programmable communicator device claimed in new claim 71. For example, as described in prior responses (e.g., the response filed September 4, 2008), Hayes describes a wireless programmer that updates the memory of various electronic devices. During Hayes' updating process, the electronic device and the wireless programmer exchange a variety of signals (e.g., a notification signal, an authentication signal, a data signal, and an acknowledgement signal). Nowhere does Hayes teach or suggest the programmable interface nor the authentication required by new claim 71.

In particular, Hayes fails to teach or suggest authenticating an incoming transmission by comparing a coded number in the transmission with a preset number. Rather, as described in the responses filed September 4, 2008 and October 3, 2008, at best, Hayes' device 100 sends its ESN number back to Hayes's wireless programmer (which prior Office Actions suggests corresponds to the programming transmitter). Hayes' wireless programmer then stores the ESN to keep a database of which devices have been updated. The ESN number in Hayes is not received by the electronic device (which prior Office Actions suggest corresponds to the programmable communicator device) and compared to a preset number, in order to authenticate an incoming transmission, as required by claim 71. Rather, Hayes essentially describes the opposite – Hayes' wireless device sends the transmission with the ESN number to the wireless programmer.

Furthermore, Hayes fails to teach or suggest the programmable interface required by new claim 71. In particular, prior office actions (e.g., the Office Action dated 4/4/08) suggested that Hayes' connector 180 constitutes the programmable interface. However, Applicant respectfully disagrees. As discussed in Hayes, the connector 180 provides an

electrical interface that is used by electronic device 100 to input and/or output data and other signals and may be used to update the memory in the device using standard wire based methods (col. 5, lines 60-67). However, nowhere does Hayes teach or suggest that this connector is programmable. Rather, it is merely an electrical interface.

Anderson also fails to teach or suggest the programmable communicator device claimed in claim 71 and fails to teach the deficiencies of Hayes. Rather, as discussed in Applicant's response dated September 4, 2008, Anderson merely teaches a call screening device that receives telephone calls, extracts caller-ID information, and compares the caller-ID information to a pre-stored list of authorized numbers. If the caller-ID information matches an entry in the pre-stored list, Anderson allows the phone to ring. Otherwise Anderson prevents the call from ringing normally. Nowhere does Anderson teach or suggest a programmable interface that is connected to at least one wired or wirelessly attached monitoring device. Furthermore, nowhere does Anderson teach or suggest the coded number/preset number authentication required by claim 71.

Additionally, Applicant would like to note that the other secondary references relied upon by prior Office Actions (e.g., Giniger, Schlager, and Gaukel) also fail to teach or suggest the deficiencies of Hayes. For example, the Giniger, Schlager, and Gaukel references also fail to teach or suggest a programmable interface that is connected to at least one wired or wirelessly attached monitoring device. Accordingly, new claim 71 is allowable over the prior art of record, alone or in combination. Moreover, new claims 72-98, which depend from new claim 71 are allowable over the prior art of record for at least the same reasons.

In a manner similar to new claim 71, new claims 99, 110, and 138 also describe programmable communicator devices that authenticate using a coded number and contain a programmable interface connected to at least one wired or wireless attached monitoring device. Accordingly, new claim 99, 110, and 138 are allowable over the prior art of record for at least the same reasons as discussed above for new claim 71. Moreover, claims 100-109, 111-137, and 139-165, which depend from claims 99, 110, and 138 are allowable for at least the same reasons.

35 U.S.C. 103

The Office Action rejects claims 60-70 under 35 USC 103(a) as being unpatentable over various combinations of United States Patent Number 5,974,312 (Hayes et al., hereinafter "Hayes"), United States Patent Number 5,995,603 (Anderson, hereinafter "Anderson"), U.S. Patent Number 6,985,742 (Giniger et al., hereinafter "Giniger"), U.S. Patent Number 6,198,390 (Schlager et al., hereinafter "Schlager"), and U.S. Patent Number 6,072,396 (Gaukel, hereinafter "Gaukel"). However, as mentioned above, Applicant has cancelled claims 60-70. Accordingly, Applicant believes that the above rejections are now moot.

Accordingly, it is believed that the application is now in order for allowance and Applicants respectfully request that a notice of allowance be issued. Applicants believe that a one month extension of time is required and requests that the corresponding fee be charged to deposit account number 19-4972. Additionally, please charge any additional fees required by this paper or credit any overpayment to Deposit Account No. 19-4972. Applicants also request that the examiner contact applicant's attorney , Jonathan C. Lovely, if it will assist in processing this application through issuance.

DATE: April 16, 2009

Respectfully submitted,

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01503/00105 1060193.1

Electronic Patent Application Fee Transmittal

Application Number:	11329212
Filing Date:	10-Jan-2006
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Filer:	Jonathan Lovely
Attorney Docket Number:	1503/105

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Claims in excess of 20	2202	84	26	2184
Independent claims in excess of 3	2201	2	110	220
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	65	65
Miscellaneous:				
			Total in USD ($)	**2469**

Electronic Acknowledgement Receipt

EFS ID:	5164368
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	16-APR-2009
Filing Date:	10-JAN-2006
Time Stamp:	12:38:53
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$2469
RAM confirmation Number	9103
Deposit Account	194972
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	1503105_Response.pdf	196124 d33854ef90ca7ba3ea2ebee0623e2171fc7a904e	no	30
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	33333 b43568e36d7896e804351cd67ae9819b0ff68e93	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	229457		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

2101 7590 01/07/2009

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EXAMINER	
NGUYEN, NAM V	

ART UNIT	PAPER NUMBER
2612	

MAIL DATE	DELIVERY MODE
01/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/329,212	VAN SWAAY, EVELINE WESBY	
	Examiner	Art Unit	
	Nam V. Nguyen	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *21-59* is/are allowed.

6)☒ Claim(s) *60-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's Amendment which is filed October 28, 2008 by a request for continued examination.

An amendment to the claims 21, 49 and 60 has been entered and made of record in the application of Van Swaay for a "programmable communicator" filed January 10, 2006.

Claims 21-70 are pending.

Response to Arguments

In view of applicant's amendment to amend the claims 21-68 to obviate the 35 U.S.C. §112 rejections, therefore, examiner has withdrawn the rejection under 35 U.S.C §112, second paragraph.

Applicant's arguments, see page 11 to page 17, filed October 28, 2008, with respect to Claims 21-59 have been fully considered and are persuasive. The rejection of Claims 21-59 has been withdrawn.

Applicant's amendments to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C §

103(a) as discussed below. Applicant's amendment and argument with respect to the pending claims 60-70, filed October 28, 2008, have been fully considered but they are not persuasive for at least the following reasons.

On page 16, second paragraph, Applicant's arguments with respect to the invention that the transmission includes "the unique identifier and at least one telephone number or IP address…." is not persuasive.

As defined by claim 60, lines 4, the transmission includes at least one telephone number or IP address associated with a monitoring device wired or wirelessly attached to the communicator. Therefore, the claim does not have the limitation that "the transmission includes the unique identifier and at least one telephone number or IP address…." as argument.

Furthermore, Hayes, Jr. et al. disclose a micro-controller (120) (i.e. a processing module) configured to receive and authenticate an at least one transmission from a wireless programmer (200) (i.e. a programming transmitter), the at least one transmission including at least one telephone number or IP address (see Figures 5A to 5C), wherein the processing module (120) is configured to authenticate the at least one transmission by determining if the at least one transmission contains the ESN (i.e. a unique identifier) (column 5 lines 61 to 67; column 6 lines 27 to 34).

In the same field of endeavor of a communication system, Anderson discloses that a memory module (52) configured to store the at least one telephone number from the authenticated transmission as one of a plurality of permitted callers (column 3 lines 50 to 57;

column 5 lines 31 to 45; see Figure 3 and 5) in order to generate a distinctive ring for the caller or by redirecting the call to a separate telephone or to an answering machine.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a memory to store the telephone number from authenticated signal as an authorized callers taught by Anderson in an the electronic device for updating a memory via a wireless data transfer of Hayes, Jr. et al. because having a memory to store the authorized list of caller would improve an arrangement for screening incoming telephone calls for convenient of the user.

Regarding to the Claims 68-70, Gaukel disclose the remote units may be operative to monitor many data items such as system integrity, motion temperature, audio, and the like in addition to position. This data would then be transmitted back to a central monitoring station operative to process and display the information by using the cellular phone and modem (34) in the cellular bag (30). The system is also adapted to monitor persons in hazardous environments such as radioactivity or poisonous gases (column 12 lines 12 to 32; see Figures 1 and 7).

The examiner maintains that the references cited and applied in the last office actions for the rejection of the claims 60-70 are maintained in this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603).

Referring to Claims 60-61, Hayes, Jr. et al. disclose an electronic device (100) (i.e. a programmable communicator device) (column 2 lines 18 to 34; see Figure 1) comprising:
a wireless communications circuit (195) having an antenna (118) and configured to communicate over a communications network (column 5 lines 43 to 53; see Figure 2);

A non-volatile programmable memory (136) (i.e. a programmable identity module) having an electronic serial number (ESN) (i.e. a unique identifier associated with the programmable communicator (100)) (column 6 lines 27 to 34; see Figure 2);

A system connector interface (180) (i.e. a programmable interface) connected to at least one external component (i.e. an attached monitoring device) (column 5 lines 61 to 67; see Figure 2);

A micro-controller (120) (i.e. a processing module) configured to receive and authenticate an at least one transmission from a wireless programmer (200) (i.e. a programming transmitter), the at least one transmission including at least one telephone number or IP address (see Figures 5A to 5C), wherein the processing module (120) is configured to authenticate the at least one transmission by determining if the at least one transmission contains the ESN (i.e. a unique identifier).

However, Hayes, Jr. et al. did not explicitly disclose that a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

In the same field of endeavor of a communication system, Anderson discloses that a memory module (52) configured to store the at least one telephone number from the authenticated transmission as one of a plurality of permitted callers (column 3 lines 50 to 57; column 5 lines 31 to 45; see Figure 3 and 5) in order to generate a distinctive ring for the caller or by redirecting the call to a separate telephone or to an answering machine.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a memory to store the telephone number from authenticated signal as an authorized callers taught by Anderson in an the electronic device for updating a memory via a wireless data transfer of Hayes, Jr. et al. because having a memory to store the authorized list of caller would improve an arrangement for screening incoming telephone calls for convenient of the user.

Claims 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claim 60 and in further view of Giniger et al. (US# 6,985,742).

Referring to Claims 62-63, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 60, however, Hayes, Jr. et al. in view of Anderson

disclose did not explicitly disclose further comprising: a GPS module configured to determine at least one location of the programmable communicator and store the at least one location into the GPS module's memory; and wherein the programmable communicator is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

In the same field of mobile communication unit, Giniger et al. disclose a GPS receiver (403) (i.e. a GPS module) configured to determine at least one location of the mobile unit (103) (i.e. the programmable communicator) (column 9 line 66 to column 10 line 14; see Figure 4) and store the at least one location into the position subsystem I/F module 421 (i.e. the GPS module's memory) (column 12 lines 10 to 20); and

wherein the mobile unit 103 (i.e. the programmable communicator) is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request (column 12 lines 21 to 40) in order to generate a history of mobile unit's location and receiving information that corresponds to the mobile unit's present location.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a GPS receiver to determine the location of the mobile unit and transmit the location to the server upon request taught by Giniger et al. in an the electronic device for updating a memory via a wireless data transfer of Hayes, Jr. et al. in view of Anderson because using a GPS receiver to determine the location of the mobile unit and transmit the location information to the server would improve position reporting easily and desired information being supplied to the user more accurate.

Claims 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claims 60 and in further view of Schlager et al. (US# 6,198,390).

Referring to Claim 64, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 60, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose further comprising: a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

In the same field of mobile remote monitoring communication unit, Schlager et al. disclose a hazard sensor 36 (i.e. a sensor module) configured to monitor excessive carbon monoxide (i.e. at least one condition) and prompt the remote unit 12 (i.e. the programmable communicator device) when the at least one condition meets a threshold limit, wherein the programmable communicator device 12 is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt (column 6 line 61 to column 7 line 4; column 25 lines 15 to 21; see Figures 1, 3 and 34) in order to create a warning to indicate the fact.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a sensor to monitor excessive carbon monoxide level and to

transmit a warning signal to a receiver taught by Schlager et al. in an the electronic device and activating a wireless update routine in the programming unit of Hayes, Jr. et al. in view of Anderson because using a sensor to measure carbon monoxide level and transmit warning signal to the receiver would improve safety of the condition in a mobile unit.

Referring to Claims 65-67, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 60, Schlager et al. disclose a hazard sensor 100 (i.e. a remote device) configured to temperature or smoke (i.e. at least one condition) and prompt the remote unit 12 (i.e. the programmable communicator device) when the at least one condition meets a threshold limit, wherein the programmable communicator device 12 is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt (column 6 line 61 to column 7 line 4; column 25 lines 15 to 21; see Figures 3 and 34) in order to create a warning to indicate the fact.

Claims 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claim 60 and in further view of Gaukel (US# 6,072396).

Referring to Claim 68, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 60, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose further comprising wherein the programmable communicator device is further configured to communicate between at least one remote monitoring device and

at least one interfaced device; and wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

In the same field of mobile remote monitoring communication unit, Gaukel disclose a body cellular bag device (30) configured to link with a wristband device 20 and communicate with central control tracking station 40 (column 11 lines 13 to 20; see Figures 1-5); and the wristband device 20 monitors blood pressure or heart rate (column 12 lines 12 to 32; see Figure 1) in order to create a warning signal to indicate the fact of the given use environment.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a sensor to monitor excessive carbon monoxide level and to transmit a warning signal to a receiver taught by Gaukel in an the electronic device and activating a wireless update routine in the programming unit of Hayes, Jr. et al. in view of Anderson because using a sensor to measure carbon monoxide level and transmit warning signal to the receiver would improve safety of the condition in a mobile unit.

Referring to Claims 69-70, Hayes, Jr. et al. in view of Anderson and Gaukel disclose the programmable communicator device according to claim 68, Gaukel discloses wherein the data received from the at least one interfaced device (20) is sent in response to a request from the remote control station (40) (i.e. the at least one remote monitoring device) (column 11 lines 30 to 65; see Figure 1).

Allowable Subject Matter

Claims 21-59 are allowed.

Referring to claims 21 and 49, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that the programmable communicator device includes a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including the unique identifier and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the at least one transmission includes the unique identifier.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V. Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Brian Zimmerman can be reached on 571- 272-3059. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/N. V. N./
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	Art Unit
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009						
	1	-	-	-						
	2	-	-	-						
	3	-	-	-						
	4	-	-	-						
	5	-	-	-						
	6	-	-	-						
	7	-	-	-						
	8	-	-	-						
	9	-	-	-						
	10	-	-	-						
	11	-	-	-						
	12	-	-	-						
	13	-	-	-						
	14	-	-	-						
	15	-	-	-						
	16	-	-	-						
	17	-	-	-						
	18	-	-	-						
	19	-	-	-						
	20	-	-	-						
	21	✓	✓	=						
	22	✓	✓	=						
	23	✓	✓	=						
	24	✓	✓	=						
	25	✓	✓	=						
	26	✓	✓	=						
	27	✓	✓	=						
	28	✓	✓	=						
	29	✓	✓	=						
	30	✓	✓	=						
	31	✓	✓	=						
	32	✓	✓	=						
	33	✓	✓	=						
	34	✓	✓	=						
	35	✓	✓	=						
	36	✓	✓	=						

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	Art Unit
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008	01/04/2009						
	37	✓	✓	=						
	38	✓	✓	=						
	39	✓	✓	=						
	40	✓	✓	=						
	41	✓	✓	=						
	42	✓	✓	=						
	43	✓	✓	=						
	44	✓	✓	=						
	45	✓	✓	=						
	46	✓	✓	=						
	47	✓	✓	=						
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	59	✓	✓	=						
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	63	✓	✓	✓						
	64	✓	✓	✓						
	65	✓	✓	✓						
	66	✓	✓	✓						
	67	✓	✓	✓						
	68	✓	✓	✓						
	69	✓	✓	✓						
	70	✓	✓	✓						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	NAM NGUYEN	2612

SEARCHED

Class	Subclass	Date	Examiner
340	573.4; 539; 693.5; 825.32; 825.49;	1/2/09	NN
455	456.1; 456.2;418-419; 425	1/2/09	NN
379	142; 373;375	1/2/09	NN

SEARCH NOTES

Search Notes	Date	Examiner
Search EAST: US-PUB; USPAT; EPO; JPO and Derwent.(updated search).	1/2/09	NN
Search Term: authorized list in cellular phone with monitoring device or sensor; monitoring central station. stored telephone/ip address in memory when a valid id received.	1/2/09	NN

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

/N. V. N./ Examiner.Art Unit 2612	

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: 01/10/2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. Transmitted herewith is a Supplemental Response for this application.

STATUS

2. Applicant is a small entity A statement was already filed.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col.1)		(Col. 2)	(Col. 3)	SMALL ENTITY				
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE			ADDIT. FEE	
TOTAL	50	MINUS	50	= 0	x $	26.00	= $		0.00
INDEP	4	MINUS	4	= 0	x $	110.00	= $		0
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+ $	0.00	= $		0.00
						TOTAL ADDIT. FEE	$		0.00

* If the entry in Col. 1 is less than the entry in Col. 2, write "O" in Col. 3,
** If the "Highest No. Previously Paid For" IN THIS SPACE (Column 2, Row 1) is less than 20, enter "20".
*** If the "Highest No. Previously Paid For" IN THIS SPACE (Column 2, Row 2) is less than 3, enter "3".
The "Highest No. Previously Paid For" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

No additional fee for claims is required.

FEE DEFICIENCY

5. If any additional extension and/or fee is required, charge Account No. 19-4972.

If any additional fee for claims is required, charge Account No. 19-4972.

Date: October 28, 2008

/Jonathan C. Lovely, Reg. #60,821/
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617-443-9292
Customer No. 02101

01503/00105 959548.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

FILED BY USPTO ELECTRONIC FILING SYSTEM

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL RESPONSE

Dear Sir:

Applicant respectfully submits this supplemental response and requests that the following amendments and remarks be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier that is unique to the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including the unique identifier and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers if the processing module authenticates the at least one transmission by determining that the at least one transmission includes the unique identifier.

22. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (Previously Presented) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmits the at least one signal representative of the programmable communicator~~'s~~ device's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator device based on the at least one signal.

26. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (Previously Presented) A programmable communicator device according to claim 27, wherein the attachment is a wrist strap.

29. (Previously Presented) A programmable communicator device according to claim 27, wherein the attachment is a smart clothes attachment.

30. (Previously Presented) A programmable communicator device according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

31. (Previously Presented) A programmable communicator device according to claim 21 wherein the programmable communicator device is linked to at least one remote device.

32. (Previously Presented) A programmable communicator device according to claim 31, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (Previously Presented) A programmable communicator device according to claim 32, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (Previously Presented) A programmable communicator device according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (Previously Presented) A programmable communicator device according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (Previously Presented) A programmable communicator device according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

37. (Previously Presented) A programmable communicator device according to claim 36, further comprising:

an alarm module configured to send an alarm message to the at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is further configured to communicate between the at least one monitoring device and at least one interfaced device.

39. (Previously Presented) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (Previously Presented) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (Previously Presented) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

42. (Previously Presented) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one ~~remote~~ interfaced device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (Previously Presented) A programmable communicator device according to claim 42, wherein the gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching

network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (Previously Presented) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (Previously Presented) A programmable communicator device according to claim 21, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module having a unique identifier;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring device as one of a plurality of permitted callers, the at least one telephone number or IP address received in a first ~~an authenticated~~ transmission containing the unique identifier; and

a processing module authenticating the first transmission by determining if the transmission includes the unique identifier, the memory module storing the at least one telephone number or IP address of the at least one remote monitoring device if the processing module authenticates the first transmission by determining that the first transmission includes the unique identifier, the processing module communicating with the at least one interfaced device through the wireless communications circuit and configured to receive data from the at least one interfaced device and determine if the

received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a second transmission to the at least one remote monitoring device if the change in status crosses the threshold, the second transmission including the unique identifier.

50. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (Previously Presented) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (Previously Presented) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (Previously Presented) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60. (Currently Amended) A method for remotely programming and monitoring a communicator device comprising:

receiving at least one transmission from a programming transmitter in a processing module, the transmission including at least one telephone number or IP address associated with a monitoring device wired or wirelessly attached to the communicator device;

authenticating the least one transmission by determining if the at least one transmission includes a unique identifier identifying the communicator device; and

storing the at least one telephone number or IP address contained within the at least one transmission into memory <u>if the at least one transmission is authenticated by determining the at least one transmission includes the unique identifier identifying the communicator device</u>.

61. (Previously Presented) A method according to claim 60, wherein the memory includes a permitted callers list and wherein the at least one telephone number or IP address is stored within the permitted callers list.

62. (Previously Presented) A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

determining the location of the programmable communicator using a GPS module;

transmitting the location of the programmable communicator to at least one telephone number or IP address stored in memory.

63. (Previously Presented)A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

processing the authenticated location request;

generating at least one signal representative of the programmable communicator's location; and

transmitting the at least one signal to a location determination center, wherein the location determination center determines programmable communicator's location based on the at least one signal representative of the programmable communicator's location.

64. (Previously Presented) A method according to claim 60 further comprising:

monitoring at least one condition;

prompting the programmable communicator when the at least one condition meets a threshold limit; and

sending a transmission to at least one of the telephone numbers or IP addresses stored within the memory, the programmable communicator sending the transmission in response to the prompt.

65. (Previously Presented) A method according to claim 60, further comprising:

receiving a command from an authenticated programming transmitter, the command prompting the programmable communicator to instruct at least one remote device linked to the programmable communicator to read the command;

instructing the at least one remote device to read the command in response, wherein the at least one remote device performs a task and monitors at least one parameter in response to the command, the at least one remote device periodically storing monitored parameter data to a memory module;

relaying the stored monitored parameter data to at least one of the telephone numbers or IP addresses stored in memory.

66. (Previously Presented) A method according to claim 65 further comprising:

sending a status report transmission to an external device associated with the at least one telephone number or IP address stored in memory when the programmable communicator detects a change in status of the least one remote devices.

67. (Previously Presented) A method according to claim 66 further comprising:

sending an alarm message to the external device, the alarm message indicating a current status of the at least one remote device.

68. (Previously Presented) A method for using a programmable communicator comprising:

establishing communication between the programmable communicator, at least one remote monitoring device, and at least one interfaced device over a communications network;

storing at least one telephone number or IP address of the at least one remote monitoring device in memory;

receiving data from the at least one interfaced device;

processing the data received from the at least one interfaced device to determine whether received data indicates a change in status of the least one interfaced device that crosses a threshold; and

sending a transmission to the at least one remote monitoring device if the change in status crosses the threshold.

69. (Previously Presented) A method according to claim 68 further comprising:

sending a request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

70. (Previously Presented) A method according to claim 68 further comprising:

receiving a request for data from the at least one remote monitoring devices; and

sending the request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

REMARKS

Applicant wishes to thank the Examiner for the review of the present application. Applicant previously cancelled claims 1-20 and added claims 21-70. Applicant has further amended claims 21, 49, and 60 herewith. Thus, claims 21-70 are currently pending in the application.

Examiner Interview Summary

In addition to the telephone interview of September 11, 2008, Applicant would also like to thank the Examiner for the follow up telephone interview of October 3, 2008. Applicant included a summary of the September 11, 2008 interview in the response and request for continued examination dated October 3, 2008. Accordingly, Applicant herein only summarizes the follow up telephone interview of October 3, 2008.

During the follow up interview, Applicant's attorney and Examiner Nguyen discussed the status of Examiner Nguyen's review of the response filed September 4, 2008, as well as, the pending claims and the cited prior art. In particular, Examiner Nguyen indicated that he planned to act on the response filed September 4, 2008 and Applicant's attorney informed Examiner Nguyen that Applicant would file a request for continued examination in view of the upcoming deadline.

With regard to the cited prior art and pending claims, Examiner Nguyen indicated that he believed that Hayes and Anderson did not show some of the features of the pending claims. However, Examiner Nguyen requested that the claims be further amended to clarify the language and scope of the claim, in order to better distinguish the prior art and overcome the 35 USC 112 rejections in the Office Action dated April 4, 2008. In particular, Examiner Nguyen requested that the claims be amended to more clearly identify what is sending the transmission, what the transmission includes, and when the memory module stores the telephone numbers and/or IP addresses (e.g., when the transmission is authenticated).

Discussion of Claim Amendments and Examiner's Requested Amendments

Applicant has amended the pending claims to address the Examiner's concerns discussed during the telephone interview of October 3, 2008. In particular, Applicant has amended claim 21 to include language that further describes the function of the memory module. Claim 21 now describes a memory module that stores the at least one telephone number or IP address contained within the transmission as one of a plurality of permitted callers *if the processing module authenticates the at least one transmission by determining that the at least one transmission includes the unique identifier*. In other words, if the transmission includes the unique identifier that is unique to the programmable communicator device, the processing module will authenticate the transmission and the memory module will store the telephone numbers and/or IP addresses contained within the transmission. Applicant has similarly amended claims 49 and 60.

Regarding Examiner's request to clarify what the transmission includes, Applicant would like to point out that the response and request for continued examination filed on October 3, 2008 amended the claims such that the transmission includes "the unique identifier and at least one telephone number or IP address corresponding to the at least one monitoring device." Accordingly, Applicants believe that it is now clear that the transmission includes both the unique identifier that is unique to the programmable communicator device (e.g., the device that receives the transmission), and at least one telephone number or IP address that corresponds to at least one monitoring device. As discussed above, the telephone numbers and/or IP addresses that are received in the transmission are stored by the memory module if the transmission is authenticated by the processing module (e.g., if the processing module determines that the transmission includes the unique identifier).

Additionally, regarding Examiner's request to clarify which device is sending the transmission, Applicant would like to point out that, as described in the claims originally filed in Applicant's response dated November 30, 2007, a programming transmitter sends the transmission to the programmable communicator device. As discussed during the telephone interview of September 11, 2008, the programming transmitter can be one of

the remote monitoring devices or it may be a different device. For example, if a user wishes to program the programmable communicator device to store a cell phone number as a permitted caller (e.g., the cell phone would be a remote monitoring device), the user may send the transmission from the cell phone (e.g., a remote monitoring device is the programming transmitter). Alternatively, the user may send the transmission from her laptop computer (e.g., a different device is the programming transmitter). In either scenario, the transmission would include the unique identifier for the programmable communicator device (e.g., for authentication), and the telephone number of the cell phone which will be stored in the memory module if transmission is authenticated. Accordingly, Applicant's believe that the claims identify what device is sending the transmission and no further amendments are required.

Remarks and Discussion of Advisory Action

In response to the Advisory Action dated October 10, 2008, Applicants would like to provide the following remarks.

The Advisory Action appears to suggest that the combination of Hayes and Anderson teach claims 21 and 60. However, as discussed in the response and request for continued examination dated October 3, 2008 and during the telephone interviews of September 11, 2008 and October 3, 2008, the combination of Hayes and Anderson fails to teach or suggest the pending claims. In particular, claim 21 describes, in relevant part, a programmable communicator device having, among other things, a programmable interface connected to at least one monitoring device, a processing module, and a memory module. The processing module receives and authenticates transmissions from a programming transmitter. The transmissions include a telephone number or IP address corresponding to the least one monitoring device and a unique identifier that is unique to the programmable communicator device. If the processing module authenticates the transmission, the memory module stores the telephone number and/or IP address as one of a plurality of permitted callers. Claim 60 describes a similar device.

Hayes and Anderson, alone or in combination, fail to teach or suggest such a device. In particular, neither Hayes nor Anderson teach or suggest a programmable

communicator device that receives a transmission from a programming transmitter, determines if the transmission contains a unique identifier that is unique to the programmable communicator device (e.g., to authenticate the transmission), and stores telephone numbers and/or IP addresses corresponding to at least one monitoring device if the transmission is authenticated. The advisory action suggests that it would have been obvious to one skilled in the art to recognize the need to use a memory to store telephone numbers from an authenticated signal as an authorized caller (Anderson) in an electronic device for updating memory via a wireless data transfer (Hayes) in order to improve an arrangement for screening incoming telephone calls. However, even if this were true, Hayes and Anderson still fail to teach or suggest the claimed invention.

As discussed in the response and request for continued examination dated October 3, 2008 and the telephone interviews of September 11, 2008 and October 3, 2008, Hayes describes a wireless programmer that updates the memory of various electronic devices. During Hayes' updating process, the electronic device and the wireless programmer exchange a variety of signals (e.g., a notification signal, an authentication signal, a data signal, and an acknowledgement signal). None of the shared signals include telephone numbers or IP addresses corresponding to an attached monitoring device. Rather, at best, Hayes' signal includes an electronic serial number (ESN) associated with the electronic device, not a remote monitoring device as required by the present claims. Further, even if the ESN was a telephone number or IP address corresponding to a remote monitoring device, this number is sent to and stored in the wireless programmer to keep a database of which electronic devices were updated. This is in contrast to the present claims, in which the telephone number and/or IP address is received by and stored by the programmable communicator device, which according to the office action dated April 4, 2008, corresponds with the electronic device 100 not the wireless programmer 200.

Additionally, to the extent that Hayes authenticates any of the transmissions, the authentication is not performed by a processing module within a programmable communicator device. In particular, as shown in Figure 5C and as discussed at column 11, lines 15-20, Hayes' authentication consists of the electronic device 100 sending its ESN number to the wireless programmer 200, which authenticates the ESN number and

returns the ESN and the authentication result. In other words, the electronic device 100 (which the Office Action dated April 4, 2008 classifies as the programmable communicator device) supplies its own ESN number to the wireless programmer for authentication. This is in direct contrast to the present claims which require that the programming transmitter send the unique indentifier that is unique to the programmable communicator device to the programmable communicator device, which, in turn, authenticates the transmission.

Furthermore, Anderson also fails to teach or suggest the deficiencies of Hayes. Rather, as described in Applicant's response to the Office Action dated August 3, 2007, Anderson merely teaches a call screening device that receives telephone calls, extracts caller-ID information, and compares the caller-ID information to a pre-stored list of authorized numbers. If the caller-ID information matches an entry in the pre-stored list, Anderson allows the phone to ring. Otherwise Anderson prevents the call from ringing normally.

Anderson creates the pre-stored list in a variety of ways, and, as discussed in Applicant's responses dated September 4, 2008 and October 3, 2008, none of Anderson's methods involve the authenticated transmission required by the present claims. In particular, Anderson does not teach or suggest a transmission that includes a unique identifier unique to a programmable communicator device and telephone numbers and/or IP addresses corresponding to remote monitoring devices. Rather, Anderson's incoming call merely has information related to the incoming caller. The Advisory Action suggests that this caller identification information of the incoming call constitutes the required information and may be used to determine an authorized caller. However, as discussed previously, Anderson's information relates to the incoming caller (e.g., the sender), not the receiving device (e.g., the unique identifier that is unique to the programmable communicator device), as required by the claims.

Additionally, Anderson fails to teach or suggest authenticating (via a processing module) the transmission by determining if the transmission includes the unique identifier, and storing the telephone number/IP address in memory if the transmission includes the unique identifier. Rather, Anderson either adds the telephone number to the

list using a keypad or by pressing an "add" button when the system is receiving an incoming call. Anderson does not include the claimed processing module that authenticates the transmission, nor does Anderson store the telephone number as one of the plurality of permitted callers. Instead, Anderson merely displays the telephone number and the user must then manually add the telephone number to the list by pressing "add". Moreover, to the extent that Anderson authenticates an incoming call, as mentioned above, Anderson merely compares the incoming telephone number to the callers list. Therefore, even if the comparison to the callers list constitutes authentication, Anderson is comparing an identifier associated with the sending device, not the receiving device, which is in direct contrast to the present claims. Nowhere does Anderson teach or suggest authenticating the incoming transmission/telephone call based on a unique identifier associated with the receiving device. Accordingly, the present claims are allowable over the combination of Hayes and Anderson.

The Advisory Action also suggests that the claims do not explicitly state that the transmission contains the unique identifier. As mentioned above, the programmable communicator device (in particular, the processing module) receives a transmission from a programming transmistter. Furthermore, the claims as amended in the response and request for continued examination filed on October 3, 2008, state that the transmission includes "the unique identifier and at least one telephone number or IP address…." Accordingly, Applicant believes that the claims clearly state that the transmission includes both the unique identifier (that is unique to the programmable communicator device) and the telephone number/IP address (that corresponds to a monitoring device).

Lastly, the advisory action suggests that the claims as amended in the response dated September 3, 2008 do not overcome the 35 USC 112, second paragraph, rejections. In particular, the advisory action suggests that the claims fail to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. As discussed above, Applicant further amended the claims in the response and request for continued examination dated October 3, 2008 and herewith. Applicant believes that the claims, as amended, address the rejections made in the Office Action dated April 4, 2008. In particular, the claims, as amended herein, further clarify the authentication process

(e.g., determining if the transmission contains the unique identifier), what the transmission includes (e.g., the unique identifier that is unique to the programmable communicator device, and at least one telephone number or IP address corresponding to the at least one monitoring device), and what is sending the transmission to the programmable communicator device.

Accordingly, it is believed that the application is now in order for allowance and Applicants respectfully request that a notice of allowance be issued. Applicants do not believe that any extension of time is required by this paper. However, if an extension is required, Applicants hereby request that the associated fees be charged to Deposit Account No. 19-4972. Applicants also request that any other fee required for timely consideration of this application be charged to Deposit Account No. 19-4972. Applicants also request that the examiner contact applicant's attorney, Jonathan Lovely, if it will assist in processing this application through issuance.

DATE: October 28, 2008

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

Jonathan C. Lovely
Registration No. 60,821
Attorney for Applicant

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125 Summer Street
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01503/00105 952607.1

Electronic Acknowledgement Receipt

EFS ID:	4187727
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	28-OCT-2008
Filing Date:	10-JAN-2006
Time Stamp:	15:53:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	klw1503105_suppresponse.pdf	346775 4e7fd0d525c51707de2447676efc86c4fed5652e	no	19

Warnings:	
Information:	

Total Files Size (in bytes):	346775

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

2101 7590 10/10/2008
BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
NGUYEN, NAM V	
ART UNIT	PAPER NUMBER
2612	
MAIL DATE	DELIVERY MODE
10/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Interview Summary	Application No.	Applicant(s)	
	11/329,212	VAN SWAAY, EVELINE WESBY	
	Examiner	Art Unit	
	Nam V. Nguyen	2612	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Nam V. Nguyen*.

(2) _____.

(3)*Johnathan C. Lovely (Reg. No. 60,821)*.

(4)_____.

Date of Interview: *03 September 2008*.

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal [copy given to: 1)☐ applicant 2)☐ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☒ No.
If Yes, brief description: _____.

Claim(s) discussed: *21,49,60 and 68*.

Identification of prior art discussed: _____.

Agreement with respect to the claims f)☐ was reached. g)☐ was not reached. h)☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *See Continuation Sheet*.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicants argues Hayes et al. in view of Anderson did not disclose independent Claims 21 and 60. In response to applicant agruments, Hayes et al. disclose a programming unit that generates signal for reprogramming the memory of electronic devices such as cell phones. The cell phones stores phone numbers within its non-volatile memory and sends an acknowledgement signal back to the programming unit. Anderson discloses a telephone call screening device. a memory module configured to store the telephone number from the authenticated transmission as one of the plurality of permitted callers (column 3 lines 50 to 57; column 5 lines 31 to 45; see Figures 3 and 5). It would have been obvious to a person of ordinary skill in the art to recognize the need to use a memory to store the telephone number from authenticated signal as an authorized callers taught by anderson in the electronic device for updating a memory via a wireless data transfer of Hayes et al. in order to improve an arrangement for screening incoming telephone calls.

Furthermore, the claims, as amended, has not overcome the the 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicant regards as the invention.

Applicant argues that the Hayes et al. did not disclose the transmitter transmits signal contains the unique identifier of the programmable identity module. However, Anderson discloses the signal the includes caller identification information from incoming call for determining authorized caller. Furthermore, the claims did not explicitly call out the programmable identity module transmits the transmission contains the unique identifier.

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Advisory Action Before the Filing of an Appeal Brief	**Application No.** 11/329,212	**Applicant(s)** VAN SWAAY, EVELINE WESBY	
	Examiner Nam V. Nguyen	**Art Unit** 2612	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 04 September 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *please see interview summary.*. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: interview summary..

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612

/N. V. N./
Examiner, Art Unit 2612

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	Art Unit
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008							
	1	-	-							
	2	-	-							
	3	-	-							
	4	-	-							
	5	-	-							
	6	-	-							
	7	-	-							
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	15	-	-							
	16	-	-							
	17	-	-							
	18	-	-							
	19	-	-							
	20	-	-							
	21	✓	✓							
	22	✓	✓							
	23	✓	✓							
	24	✓	✓							
	25	✓	✓							
	26	✓	✓							
	27	✓	✓							
	28	✓	✓							
	29	✓	✓							
	30	✓	✓							
	31	✓	✓							
	32	✓	✓							
	33	✓	✓							
	34	✓	✓							
	35	✓	✓							
	36	✓	✓							

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008	10/06/2008							
	37	✓	✓							
	38	✓	✓							
	39	✓	✓							
	40	✓	✓							
	41	✓	✓							
	42	✓	✓							
	43	✓	✓							
	44	✓	✓							
	45	✓	✓							
	46	✓	✓							
	47	✓	✓							
	48	✓	✓							
	49	✓	✓							
	50	✓	✓							
	51	✓	✓							
	52	✓	✓							
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	63	✓	✓							
	64	✓	✓							
	65	✓	✓							
	66	✓	✓							
	67	✓	✓							
	68	✓	✓							
	69	✓	✓							
	70	✓	✓							

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212 Group No.: 2612
Filed: January 10, 2006 Examiner: Nguyen, Nam V.
For: Programmable Communicator

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CONTINUED EXAMINATION (RCE)
(37 C.F.R. § 1.114)

1. Applicant hereby requests continued examination, in accordance with 37 C.F.R. § 1.114, for the above identified application.

TIME REQUEST IS BEING MADE

2. This request is being submitted:

i. Prior to abandonment of the application.

ENCLOSURES

3. Enclosed herewith is:

An amendment.

FEE FOR REQUEST (37 C.F.R. § 1.17(e)).

4. This application is on behalf of small entity (and status is still as small entity).

Continued Prosecution Request Fee: 405.00

FEE FOR CLAIMS

5. The fee for claims (37 C.F.R. § 1.16(b)-(d)) has been calculated as shown below:

	(Col.1)		(Col. 2)		(Col. 3)		SMALL ENTITY			
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE			ADDIT. FEE
TOTAL	50	–	50	=	0	x	$ 26.00	=	$	0.00
INDEP.	4	–	4	=	0	x	$ 110.00	=	$	0.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM						+	$ 195.00	=	$	0.00
							TOTAL ADDIT. FEE		$	0.00

No additional fee for claims is required.

EXTENSION OF TIME

6. The proceedings herein are for a patent application, and the provisions of 37 C.F.R. § 1.136(a) apply.

Applicant petitions for an extension of time, the fees for which are set out in 37 C.F.R. § 1.17(a)(1)-(4), for three months:

Fee: $555.00

If an additional extension of time is required, please consider this a petition therefor.

An extension for two month(s) has already been secured, and the fee paid therefor of $245.00 is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request: $310.00

TOTAL FEE(S) DUE

7. The total fee(s) due is/are:

Continued Prosecution Fee (Section 1.17(e))	$405.00
Fee(s) for additional claims (Section 1.16(b)-(d))	$0.00
Extension of time fee (Section 1.17(a)(1)-(4))	$310.00
Total Fee(s) Due:	$715.00

PAYMENT OF FEE(S) DUE

8. Please pay the fee(s) for this continued examination application as follows:

Charge Account 19-4972 the sum of $715.00.

Please charge any required additional fee(s) for § 1.17(e), § 1.16(b)-(d) and/or § 1.17(a)(1)-(4) to Account 19-4972.

INVENTORSHIP

9. This application as amended names as inventors the same inventors as previously designated for the claims.

Date: October 3, 2008

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01503/00105 947701.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE ACCOMPANYING REQUEST FOR CONTINUED EXAMINATION

Dear Sir:

Applicant respectfully submits this Amendment in response to the Final Office Action dated April 4, 2008 and requests that the following amendments and remarks be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier ~~associated with~~ that is unique to the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including the unique identifier and at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

22. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (Previously Presented) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator~~'s~~ device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmits the at least one signal representative of the programmable communicator~~'s~~ device's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator device based on the at least one signal.

26. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (Currently Amended) A programmable communicator device according to claim 27, wherein the attachment is a wrist strap.

29. (Currently Amended) A programmable communicator device according to claim 27, wherein the attachment is a smart clothes attachment.

30. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the

programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

31. (Currently Amended) A programmable communicator device according to claim 21 wherein the programmable communicator device is linked to at least one remote device.

32. (Currently Amended) A programmable communicator device according to claim 31, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (Currently Amended) A programmable communicator device according to claim 32, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (Currently Amended) A programmable communicator device according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (Currently Amended) A programmable communicator device according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (Currently Amended) A programmable communicator device according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

37. (Currently Amended) A programmable communicator device according to claim 36, further comprising:

an alarm module configured to send an alarm message to the ~~external~~ at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (Currently Amended) A programmable communicator device according to claim 21, wherein the programmable communicator device is further configured to communicate between the at least one ~~remote~~ monitoring device and at least one interfaced device.

39. (Previously Presented) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (Previously Presented) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (Currently Amended) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

42. (Currently Amended) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one ~~remote~~ interfaced device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (Currently Amended) A programmable communicator device according to claim 42 ~~21~~, wherein the ~~received~~ gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (Currently Amended) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (Currently Amended) A programmable communicator device according to claim 21, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module having a unique identifier;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring device ~~center~~ as one of a plurality of permitted callers, the at least one telephone number or IP address received in an authenticated transmission containing the unique identifier; and

a processing module authenticating the first transmission by determining if the transmission includes the unique identifier, the processing module communicating with the at least one interfaced device through the wireless communications circuit and configured to receive data from the at least one interfaced device and determine if the received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a second transmission to the at least one remote monitoring device if the change in status crosses the threshold, the second transmission including the unique identifier.

50. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (Previously Presented) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (Previously Presented) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (Previously Presented) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60. (Currently Amended) A method for remotely programming and monitoring a communicator device comprising:

receiving at least one transmission from a programming transmitter in a processing module, the transmission including at least one telephone number or IP address associated with a monitoring device wired or wirelessly attached to the communicator device;

authenticating the least one transmission by determining if the at least one transmission includes a unique identifier ~~associated with~~ identifying the communicator device; and

storing the at least one telephone number or IP address contained within the at least one transmission into memory.

61. (Previously Presented) A method according to claim 60, wherein the memory includes a permitted callers list and wherein the at least one telephone number or IP address is stored within the permitted callers list.

62. (Previously Presented) A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

determining the location of the programmable communicator using a GPS module;

transmitting the location of the programmable communicator to at least one telephone number or IP address stored in memory.

63. (Currently Amended)A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

processing the authenticated location request; ~~and~~

generating at least one signal representative of the programmable communicator's location; and

transmitting the at least one signal to a location determination center, wherein the location determination center determines programmable communicator's location based on the at least one signal representative of the programmable communicator's location.

64. (Previously Presented) A method according to claim 60 further comprising:

monitoring at least one condition;

prompting the programmable communicator when the at least one condition meets a threshold limit; and

sending a transmission to at least one of the telephone numbers or IP addresses stored within the memory, the programmable communicator sending the transmission in response to the prompt.

65. (Previously Presented) A method according to claim 60, further comprising:

receiving a command from an authenticated programming transmitter, the command prompting the programmable communicator to instruct at least one remote device linked to the programmable communicator to read the command;

instructing the at least one remote device to read the command in response, wherein the at least one remote device performs a task and monitors at least one parameter in response to the command, the at least one remote device periodically storing monitored parameter data to a memory module;

relaying the stored monitored parameter data to at least one of the telephone numbers or IP addresses stored in memory.

66. (Previously Presented) A method according to claim 65 further comprising:

sending a status report transmission to an external device associated with the at least one telephone number or IP address stored in memory when the programmable communicator detects a change in status of the least one remote devices.

67. (Previously Presented) A method according to claim 66 further comprising:

sending an alarm message to the external device, the alarm message indicating a current status of the at least one remote device.

68. (Previously Presented) A method for using a programmable communicator comprising:

establishing communication between the programmable communicator, at least one remote monitoring device, and at least one interfaced device over a communications network;

storing at least one telephone number or IP address of the at least one remote monitoring device in memory;

receiving data from the at least one interfaced device;

processing the data received from the at least one interfaced device to determine whether received data indicates a change in status of the least one interfaced device that crosses a threshold; and

sending a transmission to the at least one remote monitoring device if the change in status crosses the threshold.

69. (Previously Presented) A method according to claim 68 further comprising:

sending a request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

70. (Previously Presented) A method according to claim 68 further comprising:

receiving a request for data from the at least one remote monitoring devices; and

sending the request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

REMARKS

Applicants wish to thank the Examiner for the review of the present application. Applicants previously cancelled claims 1-20 and added claims 21-70. Applicants have amended claims 21, 24-38, 41-43, 46, 47, 49, 60, and 63. Thus, claims 21-70 are still currently pending in the application.

Examiner Interview Summary

Applicants would also like to thank the Examiner for the telephone interview of September 11, 2008. During the interview, Applicant's attorneys and Examiner Nguyen discussed the general background of the invention, as well as, the pending claims and the cited prior art. In particular, Applicant's attorneys informed Examiner Nguyen that the claimed programmable communicator acts as an intermediate device between an interfaced device (e.g., a heart rate monitor) and a remote monitoring device (e.g., a doctor's pager or laptop).

Applicant's attorneys then discussed Hayes (US Patent Number 5,974,312), Anderson (US Patent Number 5,995,603), and Gaukel (US Patent Number 6,072,396) in view of claim 49. In particular, Applicant's attorneys pointed out the differences between the cited prior art and claim 49, namely, that the prior art does not describe the three component system described in claim 49 (e.g., the programmable communicator, the interfaced device, and the remote monitoring device). After some further discussion, Examiner Nguyen indicated that he would have to review the claims and the cited prior art further. Additionally, Examiner Nguyen indicated that he felt that some amendments may be necessary to clarify claim 49. Applicant's have amended claim 49 to address Examiner Nguyen's concerns.

Applicant's attorneys then proceeded to discuss claim 21 in view of Hayes and Anderson. Applicant's attorneys explained that Hayes sends an ESN number from a cell phone to a wireless programmer, which is in direct contrast to claim 21. Applicant's attorneys also explained that Anderson's transmission includes an identifier associated with the sending device (e.g., the phone originating the call), not the receiving device, as

required by claim 21. After further discussion, Examiner Nguyen indicated that he would have to review and analyze the pending claims and prior art further. Examiner Nguyen also expressed concern with the term "associated" in claim 21. In response to Examiner Nguyen's concerns, Applicants have amended claim 21.

Claim Rejections - 35 U.S.C. 112

The office action rejects claims 21-70 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 21 and 60, the office action suggests that the phrase "authenticate an at least one transmission from a programming transmitter" is confusing and unclear. Applicant respectfully disagrees. Applicant believes that both claim 21 and 60 clearly describe what is meant by the term "authenticating." In particular both claims define authenticating as "determining if the at least one transmission contains the unique identifier." In other words, the claimed system and method authenticate the transmission if it includes the unique identifier. If authenticated, the telephone number(s) and/or IP address(es) within the transmission are stored as a permitted caller. If the transmission is lacking the unique identifier, the claimed system and method do not authenticate the transmission and the telephone number(s) and/or IP address(es) are not stored. Accordingly, Applicants believe that claims 21 and 60 particularly point out and distinctly claim the subject matter and believe that this rejection is now moot.

Regarding claims 21 and 24-37, the office action suggests that there is insufficient antecedent basis for the limitation "the programmable communicator." Per the office action's suggestion, Applicant has amended claims 21, 24-38, 41-42, and 46-47 to read "the programmable communicator device." Accordingly, Applicant believes that this rejection is now moot.

Regarding claim 38, the office action suggests that the phrase "wherein the programmable communicator is further configured to communicate between at least one

remote monitoring device and at least one interfaced device" is confusing and unclear. As mentioned above, Applicant has amended claim 38 to specify the "programmable communicator device." As further amended, claim 38 clarifies that the programmable communicator device can communicate between the at least one remote monitoring device (from claim 21) and at least one interfaced device. The interfaced device is not the same as the remote monitoring device. Rather, the programmable communicator acts as an intermediate device between at least two devices - the at least one monitoring device and the at least one interfaced device. As described in later claims and the detailed description, the interfaced device can be any number of devices including, but not limited to, medical devices, domestic appliances, vending machines, etc.

Regarding claim 43, the office action suggests that the limitations "the received data" and "the interfaced device" lack sufficient antecedent basis. Applicants have amended claim 43 to depend from claim 42 and have amended the limitation "the received data" to read "the gathered data." Accordingly, Applicant believes that there is now sufficient antecedent and that this rejection is now moot.

Regarding claims 49 and 68, the office action suggests that the phrase "a programmable interface connected to at least one wired or wireless attached monitoring device…a processing module configured to receive data from the at least one interfaced device" is confusing and unclear. As mentioned above, Applicants would like to inform the examiner that embodiments of the present invention are configured to communicate between two devices – a monitoring device and an interfaced device. In particular, the processing module within the claimed programmable communicator device receives and processes data from the at least one interfaced device. If the processing module determines that the data received from the interfaced device crosses a threshold, the processing module sends a transmission to the monitoring device. The interface device described within the claims can be any number of devices including, but not limited to medical devices, appliances, vending machines, etc. (see claims 54-56). Conversely, the monitoring device can be a pager, cell-phone, laptop, or other monitoring center/device that can receive the transmission from the processing module within the programmable communicator (e.g., to alert users and/or technicians that there is an alarm condition at

the interfaced device). Accordingly, Applicants contend that claims 49 and 69 clearly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 U.S.C. 103

The Office Action rejects claims 21-23, 44-46, and 60-61 under 35 USC 103(a) as being unpatentable over United States Patent Number 5,974,312 (Hayes et al., hereinafter "Hayes") in view of United States Patent Number 5,995,603 (Anderson, hereinafter "Anderson").

Claim 21 describes, in relevant part, a programmable communicator device having, among other things, a programmable interface connected to at least one monitoring device, a processing module, and a memory module. The processing module receives and authenticates transmissions from a programming transmitter. The transmissions include a telephone number or IP address corresponding to the least one monitoring device and a unique identifier. If the processing module authenticates the transmission, the memory module stores the telephone number and/or IP address as one of a plurality of permitted callers.

Hayes fails to teach such a device. Rather, Hayes merely describes a programming unit that generates signals for reprogramming the memory of electronic devices such as cell phones. Hayes' programming unit establishes a link with the electronic device and stores the updated software that is eventually used to update the electronic device. Once the electronic device receives the updated information, it stores it within its non-volatile memory and sends an acknowledgement signal back to the programming unit. Nowhere does Hayes teach or suggest a programmable communicator device that receives a transmission having a telephone number or IP address and a unique identifier from the programming transmitter.

The office action suggests that Hayes teaches a transmission having at least one telephone number or IP address and a unique identifier (e.g., as shown in Figures 5A to 5C). Applicants respectfully disagree. As mentioned above Hayes describes a wireless programmer that updates the memory of various electronic devices. During Hayes' updating process, the electronic device and the wireless programmer exchange a variety

of signals (e.g., a notification signal, an authentication signal, a data signal, and an acknowledgement signal). None of the shared signals include telephone numbers or IP addresses corresponding to an attached monitoring device. Rather, at best, Hayes' signal includes an electronic serial number (ESN) associated with the electronic device. However, the Office Action already classifies the ESN as the unique identifier. Furthermore, even if the ESN was a telephone number or IP address, this number is sent to and stored in the wireless programmer to keep a database of which electronic devices were updated. This is in contrast to claim 21, in which the telephone number and/or IP address is received by and stored by the programmable communicator, which according to the office action, corresponds with the electronic device not the wireless programmer.

Moreover, Hayes also fails to teach or suggest the programmable interface required by amended claim 21. The office action suggests that Hayes' system connector interface 180 constitutes the programmable interface. Applicant respectfully disagrees. Rather, Hayes' connector interface 180 is merely an electrical interface that is used by the electronic device 100 to input or output data or other signals. Nowhere does Hayes teach or suggest that the connector interface 280 is programmable.

Additionally, nowhere does Hayes teach or suggest that Hayes' system connection interface 180 is connected to a monitoring device, as required by claim 21. In fact, nowhere does Hayes teach or suggest a monitoring device at all. The office action suggests that Hayes' "external component" constitutes a monitoring device. Applicant respectfully disagrees. As mentioned above, Hayes' connection interface 180 is an electrical interface used by the electronic device. Nowhere does Hayes teach or suggest that the electronic device is a monitoring device. As is known in the art, and as the name suggests, a monitoring device is a device that monitors something (e.g., another device, a condition, etc.). Hayes' electronic device does not monitor anything. Rather, it is a device such as a cell phone that is merely updated and removed from the system. Accordingly, Hayes fails to teach or suggest all of the limitations of amended claim 21.

Anderson also fails to teach or suggest the deficiencies of Hayes. Rather, as described in Applicant's response to the Office Action dated August 3, 2007, Anderson merely teaches a call screening device that receives telephone calls, extracts caller-ID

information, and compares the caller-ID information to a pre-stored list of authorized numbers. If the caller-ID information matches an entry in the pre-stored list, Anderson allows the phone to ring. Otherwise Anderson prevents the call from ringing normally.

Anderson creates the pre-stored list in a variety of ways. First, the user may simply add the telephone number to the list using the keypad. This clearly cannot constitute the authenticated transmission required by claim 21. Alternatively, the user may press the "add" button when the system is receiving an incoming call. However, this also fails to constitute the authenticated transmission required by claim 21. In particular, the transmission does not include the unique identifier required by the pending claims and the telephone number is that of the incoming caller, not a separate monitoring device. Additionally, Anderson does not include the claimed processing module to authenticate the transmission and then store the telephone number as one of the plurality of permitted callers. Instead, Anderson merely displays the telephone number and the user must then manually add the telephone number to the list by pressing "add".

Additionally, to the extent that Anderson authenticates an incoming call, as mentioned above, Anderson merely compares the incoming telephone number to the callers list. Therefore, even if the comparison to the callers list constitutes authentication, Anderson is comparing an identifier associated with the sending device, not the receiving device. Nowhere does Anderson teach or suggest authenticating the incoming transmission/telephone call based on the unique identifier associated with the receiving device. Therefore, Hayes and Anderson fail to teach or suggest, alone or in combination, all of the limitations of amended claim 21. Accordingly, amended claim 21 is allowable over the combination of Hayes and Anderson. Additionally, dependent claims 22-23, and 44-46, which depend from amended claim 21, are allowable over Hayes and Anderson for at least the same reasons.

In a manner similar to that described above with respect to amended claim 21, claim 60 also defines a method including the steps of receiving a transmission including a unique identifier that identifies the programmable communicator device, authenticating the transmission, and storing the telephone numbers and/or IP addresses (e.g., corresponding to a monitoring device) contained within the transmission in memory.

Accordingly claim 60 is allowable over Hayes and Anderson for at least the same reasons as discussed above with regard to new claim 21. Additionally, dependent claim 61, which depends from claim 60, is also allowable for at least the same reasons.

The Office Action rejects claims 24-25 and 62-63 under 35 USC 103(a) as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 6,985,742 (Giniger, hereinafter "Giniger").

As dependent claims of claims 21 and 60, claims 24, 25, 62, and 63 include all of the limitations of the claims from which they depend. Accordingly, claims 24, 25, 62, and 63 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21 and 60.

Additionally, Giniger also fails to teach the deficiencies of Hayes and Anderson. In particular, Giniger merely discloses a method and apparatus for providing position-related information (e.g., a GPS system that uses a cellular telephone network). Nowhere does Giniger teach or suggest a programmable communicator device that receives a transmission having a telephone number or IP address corresponding to a monitoring device and a unique identifier from a programming transmitter, as required by amended claims 21 and 60. Therefore, Hayes, Anderson, and Giniger fail to teach or suggest, alone or in combination, all of the limitations of claims 24-25, and 62-63. Accordingly, claims 24-25, and 62-63 are allowable over Hayes, Anderson, and Giniger.

The Office Action rejects claims 26-29, 31-37, and 64-67 under 35 USC 103(a) as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 6,198,390 (Schlager, hereinafter "Schlager").

As dependent claims of claims 21 and 60, claims 26-29, 31-37, and 64-67 include all of the limitations of the claims from which they depend. Accordingly, claims 26-29, 31-37, and 64-67 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21 and 60.

Moreover, Schlager also fails to teach or suggest the deficiencies of Hayes and Anderson. In particular, Schlager's system may establish a two-way connection between a base station and a remote unit. When the remote unit detects a hazard, it sends a transmission to the base station which activates an alarm at the base station. The Office

Action suggests that Schlager's remote unit constitutes the programmable communicator device. However, Schlager's remote unit is neither programmable nor configured to receive and authenticate a transmission from a programming transmitter. Moreover, nowhere does Schlager teach or suggest a transmission having a unique identifier and at least one telephone number or IP address corresponding to at least one monitoring device.

Additionally, there is no teaching or suggestion to combine the hazard sensor described in Schlager with the methods and/or devices described in Hayes and Anderson. As mentioned above, Hayes describes a programming unit that generates signals for reprogramming the memory of electronic devices such as cell phones. Hayes is a one time programming. In other words, a user may connect their cell phone to Hayes' system to update the cell phone, and then remove the cell phone from the system. Hayes has no need for any type of sensor or monitoring device that is capable of continuously monitoring the device or parameter(s) of the device because the device is disconnected once the update is complete. Likewise, Anderson has no need for a monitoring device because it is merely a call screening device that compares caller ID information to a list of numbers. Accordingly, Hayes, Anderson, and Schlager fail to teach or suggest, alone or in combination, all of the limitations of claims 26-29, 31-37, and 64-67. Accordingly, claims 26-29, 31-37, and 64-67 are allowable over Hayes, Anderson, and Schlager.

The Office Action rejects claims 30, 38-43, 47-59, and 68-70 as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 5,995,603 (Gaukel, hereinafter "Gaukel").

As dependent claims of claim 21 and 60, claims 30, 38-43, and 47-48 include all of the limitations of the claim 21. Accordingly, claims 30, 38-43, and 47-48 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21.

Moreover, Gaukel fails to teach or suggest the deficiencies of Hayes and Anderson. Rather, Gaukel discloses a system for the continuous tracking of individuals. Gaukel's system includes a wristband, a cellular bag, and a control station. Although Gaukel's control station can upload "rules of compliance" to the cellular bag, nowhere does Gaukel teach or suggest that any components send and/or receive a transmission

including at least one telephone number or IP address that may be stored in memory (e.g., as a permitted caller) if the transmission is authenticated.

Additionally, like Schlager, there is not teaching or suggestion to combine Gaukel's monitoring/tracking system with Hayes and Anderson. As mentioned above, Hayes is merely a one-time update to a cell phone and Anderson is merely a call screening device. In Hayes, the user disconnects the cell phone once the update is complete. There is no need for a system that can continuously track/monitor the cell phones. Therefore, there is no reason to combine Gaukel with the disclosures of Hayes and Anderson. Accordingly, Hayes, Anderson, and Gaukel fail to teach or suggest, alone or in combination, all of the limitations of claims 30, 38-43, and 47-48. Accordingly, claims 30, 38-43, and 47-48 are allowable over the combination of Hayes, Anderson, and Gaukel.

In a manner similar to claim 21, claims 49 and 68 describe systems and/or method including a programmable communicator device that receives and stores at least one telephone number or IP address corresponding to a monitoring device. Accordingly claims 49 and 68 are allowable over the combination of Hayes, Anderson, and Gaukel for at least the same reasons as discussed above with regard to claim 21. Additionally, dependent claims 50-59 and 69-70, which depend from claims 49 and 68, are also allowable for at least the same reasons.

It is believed that the application is now in order for allowance and Applicants respectfully request that a notice of allowance be issued. Applicants believe that a three month extension of time is required and hereby request that the associated fees be charged to Deposit Account No. 19-4972. Applicants also request that any other fee required for timely consideration of this application be charged to Deposit Account No. 19-4972. Applicants also request that the examiner contact applicant's attorney, Jonathan Lovely, if it will assist in processing this application through issuance.

DATE: October 3, 2008

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

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01503/00105 943422.1

Electronic Patent Application Fee Transmittal

Application Number:	11329212
Filing Date:	10-Jan-2006
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Filer:	Jonathan Lovely
Attorney Docket Number:	1503/105

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 3 months with $245 paid	2253	1	310	310

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	2801	1	405	405
		Total in USD ($)		**715**

Electronic Acknowledgement Receipt

EFS ID:	4057652
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	03-OCT-2008
Filing Date:	10-JAN-2006
Time Stamp:	16:01:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$715
RAM confirmation Number	1287
Deposit Account	194972
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		klw1503105_rce.pdf	217416 3d9ddaa10e244db1f80fb9bbb0bf7d822bb8e814	yes	23

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Request for Continued Examination (RCE)	1	3
Amendment Submitted/Entered with Filing of CPA/RCE	4	23

Warnings:

Information:

2	Fee Worksheet (PTO-06)	fee-info.pdf	31623 15801ed76c5157f4a8eccd846c87e1bf02d48e69	no	2

Warnings:

Information:

Total Files Size (in bytes):	249039

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/329,212	01/10/2006	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 10/03/2008	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 50	Minus	** 50	= 0	X $26 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $110 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/MARQUETTA MCGEE/

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 10/14/2008

MMCGEE1 SALE #00000001 Mailroom Dt: 10/03/2008 194972 11329212
01 FC : 2253 325.00 DA

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 10/14/2008

MMCGEE1 ADJ #00000001 Mailroom Dt: 10/03/2008
Seq No: 1287 Sales Acctg Dt: 10/06/2008 194972 11329212
01 FC : 2253 310.00 CR

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: 01/10/2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

RESPONSE UNDER 37 C.F.R. § 1.116 EXPEDITED PROCEDURE EXAMINING GROUP 2612

Extended w/ RCE of 10/3/08

10-10-08

Attention: Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT OR RESPONSE AFTER FINAL REJECTION--TRANSMITTAL

1. Transmitted herewith is an amendment after final rejection (37 C.F.R. 1.116) for this application.

STATUS

2. Applicant is a small entity A statement was already filed.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for two months:

Fee: $230.00

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: 01/10/2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP
2612

Attention: Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT OR RESPONSE AFTER FINAL REJECTION--TRANSMITTAL

1. Transmitted herewith is an amendment after final rejection (37 C.F.R. 1.116) for this application.

STATUS

2. Applicant is a small entity A statement was already filed.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for two months:

Fee: $230.00

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col.1)		(Col. 2)	(Col. 3)	SMALL ENTITY				
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE		ADDIT. FEE	
TOTAL	50	MINUS	50	= 0	x	$ 25.00	=	$	0.00
INDEP	4	MINUS	4	= 0	x	$ 105.00	=	$	0
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+	$ 0.00	=	$	0.00
						TOTAL ADDIT. FEE		$	0.00

No additional fee for claims is required.

FEE PAYMENT

5. Authorization is hereby made to charge the amount of $230.00 to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

FEE DEFICIENCY

6. If any additional extension and/or fee is required, charge Account No. 19-4972.

If any fee for claims is required, charge Account No. 19-4972.

Date: September 4, 2008

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Customer No. 02101

01503/00105 931841.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

FILED BY USPTO ELECTRONIC FILING SYSTEM

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. §1.116-EXPEDITED PROCEDURE EXAMINING GROUP 2612

Dear Sir:

Applicant respectfully submits this Amendment in response to the Final Office Action dated April 4, 2008 and requests that the following amendments and remarks be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module having a unique identifier associated with the programmable communicator device;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including at least one telephone number or IP address corresponding to the at least one monitoring device, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

22. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (Previously Presented) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator device and store the at least one location into the GPS module's memory; and

wherein the programmable communicator device is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator device and generate at least one signal representative of the programmable communicator~~'s~~ device's location according to a remote locating technology,

wherein the programmable communicator device is further configured to transmits the at least one signal representative of the programmable communicator~~'s~~ device's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator device based on the at least one signal.

26. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator device if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator device is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (Currently Amended) A programmable communicator device according to claim 27, wherein the attachment is a wrist strap.

29. (Currently Amended) A programmable communicator device according to claim 27, wherein the attachment is a smart clothes attachment.

30. (Currently Amended) A programmable communicator device according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator device if a primary power supply fails or is removed, wherein the

programmable communicator device is further configured to transmit an alarm message including a location of the programmable communicator device if the primary power supply fails or is removed.

31. (Currently Amended) A programmable communicator device according to claim 21 wherein the programmable communicator device is linked to at least one remote device.

32. (Currently Amended) A programmable communicator device according to claim 31, wherein the programmable communicator device is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator device to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (Currently Amended) A programmable communicator device according to claim 32, wherein the programmable communicator device is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (Currently Amended) A programmable communicator device according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (Currently Amended) A programmable communicator device according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (Currently Amended) A programmable communicator device according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator device detects a change in status of the at least one remote devices.

37. (Currently Amended) A programmable communicator device according to claim 36, further comprising:

an alarm module configured to send an alarm message to the ~~external~~ at least one monitoring device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (Currently Amended) A programmable communicator device according to claim 21, wherein the programmable communicator device is further configured to communicate between the at least one ~~remote~~ monitoring device and at least one interfaced device.

39. (Previously Presented) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (Previously Presented) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (Currently Amended) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator device via a wireless connection.

42. (Currently Amended) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator device is further configured to gather data from the at least one ~~remote~~ interfaced device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (Currently Amended) A programmable communicator device according to claim 42 ~~21~~, wherein the ~~received~~ gathered data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (Currently Amended) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator device, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (Currently Amended) A programmable communicator device according to claim 21, wherein,

the programmable communicator device is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module having a unique identifier;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring device ~~center~~ as one of a plurality of permitted callers, the at least one telephone number or IP address received in an authenticated transmission containing the unique identifier; and

a processing module configured to receive data from the at least one interfaced device and determine if the received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a transmission to the at least one remote monitoring device if the change in status crosses the threshold, the transmission including the unique identifier.

50. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (Previously Presented) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (Previously Presented) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (Previously Presented) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60. (Currently Amended) A method for remotely programming and monitoring a communicator device comprising:

receiving at least one transmission from a programming transmitter in a processing module, the transmission including at least one telephone number or IP address associated with a monitoring device wired or wirelessly attached to the communicator device;

authenticating the least one transmission by determining if the at least one transmission includes a unique identifier associated with the communicator device; and

storing the at least one telephone number or IP address contained within the at least one transmission into memory.

61. (Previously Presented) A method according to claim 60, wherein the memory includes a permitted callers list and wherein the at least one telephone number or IP address is stored within the permitted callers list.

62. (Previously Presented) A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

determining the location of the programmable communicator using a GPS module;

transmitting the location of the programmable communicator to at least one telephone number or IP address stored in memory.

63. (Currently Amended)A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

processing the authenticated location request; ~~and~~

generating at least one signal representative of the programmable communicator's location; and

transmitting the at least one signal to a location determination center, wherein the location determination center determines programmable communicator's location based on the at least one signal representative of the programmable communicator's location.

64. (Previously Presented) A method according to claim 60 further comprising:

monitoring at least one condition;

prompting the programmable communicator when the at least one condition meets a threshold limit; and

sending a transmission to at least one of the telephone numbers or IP addresses stored within the memory, the programmable communicator sending the transmission in response to the prompt.

65. (Previously Presented) A method according to claim 60, further comprising:

receiving a command from an authenticated programming transmitter, the command prompting the programmable communicator to instruct at least one remote device linked to the programmable communicator to read the command;

instructing the at least one remote device to read the command in response, wherein the at least one remote device performs a task and monitors at least one parameter in response to the command, the at least one remote device periodically storing monitored parameter data to a memory module;

relaying the stored monitored parameter data to at least one of the telephone numbers or IP addresses stored in memory.

66. (Previously Presented) A method according to claim 65 further comprising:

sending a status report transmission to an external device associated with the at least one telephone number or IP address stored in memory when the programmable communicator detects a change in status of the least one remote devices.

67. (Previously Presented) A method according to claim 66 further comprising:

sending an alarm message to the external device, the alarm message indicating a current status of the at least one remote device.

68. (Previously Presented) A method for using a programmable communicator comprising:

establishing communication between the programmable communicator, at least one remote monitoring device, and at least one interfaced device over a communications network;

storing at least one telephone number or IP address of the at least one remote monitoring device in memory;

receiving data from the at least one interfaced device;

processing the data received from the at least one interfaced device to determine whether received data indicates a change in status of the least one interfaced device that crosses a threshold; and

sending a transmission to the at least one remote monitoring device if the change in status crosses the threshold.

69. (Previously Presented) A method according to claim 68 further comprising:

sending a request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

70. (Previously Presented) A method according to claim 68 further comprising:

receiving a request for data from the at least one remote monitoring devices; and

sending the request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

REMARKS

Applicants wish to thank the Examiner for the review of the present application. Applicants previously cancelled claims 1-20 and added claims 21-70. Applicants have amended claims 21, 24-38, 41-43, 46, 47, 49, 60, and 63. Thus, claims 21-70 are still currently pending in the application.

Claim Rejections - 35 U.S.C. 112

The office action rejects claims 21-70 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 21 and 60, the office action suggests that the phrase "authenticate an at least one transmission from a programming transmitter" is confusing and unclear. Applicant respectfully disagrees. Applicant believes that both claim 21 and 60 clearly describe what is meant by the term "authenticating." In particular both claims define authenticating as "determining if the at least one transmission contains the unique identifier." In other words, the claimed system and method authenticate the transmission if it includes the unique identifier. If authenticated, the telephone number(s) and/or IP address(es) within the transmission are stored as a permitted caller. If the transmission is lacking the unique identifier, the claimed system and method do not authenticate the transmission and the telephone number(s) and/or IP address(es) are not stored. Accordingly, Applicants believe that claims 21 and 60 particularly point out and distinctly claim the subject matter and believe that this rejection is now moot.

Regarding claims 21 and 24-37, the office action suggests that there is insufficient antecedent basis for the limitation "the programmable communicator." Per the office action's suggestion, Applicant has amended claims 21, 24-38, 41-42, and 46-47 to read "the programmable communicator device." Accordingly, Applicant believes that this rejection is now moot.

Regarding claim 38, the office action suggests that the phrase "wherein the programmable communicator is further configured to communicate between at least one remote monitoring device and at least one interfaced device" is confusing and unclear. As mentioned above, Applicant has amended claim 38 to specify the "programmable communicator device." As further amended, claim 38 clarifies that the programmable communicator device can communicate between the at least one remote monitoring device (from claim 21) and at least one interfaced device. The interfaced device is not the same as the remote monitoring device. Rather, the programmable communicator acts as an intermediate device between at least two devices - the at least one monitoring device and the at least one interfaced device. As described in later claims and the detailed description, the interfaced device can be any number of devices including, but not limited to, medical devices, domestic appliances, vending machines, etc.

Regarding claim 43, the office action suggests that the limitations "the received data" and "the interfaced device" lack sufficient antecedent basis. Applicants have amended claim 43 to depend from claim 42 and have amended the limitation "the received data" to read "the gathered data." Accordingly, Applicant believes that there is now sufficient antecedent and that this rejection is now moot.

Regarding claims 49 and 68, the office action suggests that the phrase "a programmable interface connected to at least one wired or wireless attached monitoring device…a processing module configured to receive data from the at least one interfaced device" is confusing and unclear. As mentioned above, Applicants would like to inform the examiner that embodiments of the present invention are configured to communicate between two devices – a monitoring device and an interfaced device. In particular, the processing module within the claimed programmable communicator device receives and processes data from the at least one interfaced device. If the processing module determines that the data received from the interfaced device crosses a threshold, the processing module sends a transmission to the monitoring device. The interface device described within the claims can be any number of devices including, but not limited to medical devices, appliances, vending machines, etc. (see claims 54-56). Conversely, the monitoring device can be a pager, cell-phone, laptop, or other monitoring center/device

that can receive the transmission from the processing module within the programmable communicator (e.g., to alert users and/or technicians that there is an alarm condition at the interfaced device). Accordingly, Applicants contend that claims 49 and 69 clearly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 U.S.C. 103

The Office Action rejects claims 21-23, 44-46, and 60-61 under 35 USC 103(a) as being unpatentable over United States Patent Number 5,974,312 (Hayes et al., hereinafter "Hayes") in view of United States Patent Number 5,995,603 (Anderson, hereinafter "Anderson").

Claim 21 describes, in relevant part, a programmable communicator device having, among other things, a programmable interface connected to at least one monitoring device, a processing module, and a memory module. The processing module receives and authenticates transmissions from a programming transmitter. The transmissions include a telephone number or IP address corresponding to the least one monitoring device and a unique identifier. If the processing module authenticates the transmission, the memory module stores the telephone number and/or IP address as one of a plurality of permitted callers.

Hayes fails to teach such a device. Rather, Hayes merely describes a programming unit that generates signals for reprogramming the memory of electronic devices such as cell phones. Hayes' programming unit establishes a link with the electronic device and stores the updated software that is eventually used to update the electronic device. Once the electronic device receives the updated information, it stores it within its non-volatile memory and sends an acknowledgement signal back to the programming unit. Nowhere does Hayes teach or suggest a programmable communicator device that receives a transmission having a telephone number or IP address and a unique identifier from the programming transmitter.

The office action suggests that Hayes teaches a transmission having at least one telephone number or IP address and a unique identifier (e.g., as shown in Figures 5A to 5C). Applicants respectfully disagree. As mentioned above Hayes describes a wireless

programmer that updates the memory of various electronic devices. During Hayes' updating process, the electronic device and the wireless programmer exchange a variety of signals (e.g., a notification signal, an authentication signal, a data signal, and an acknowledgement signal). None of the shared signals include telephone numbers or IP addresses corresponding to an attached monitoring device. Rather, at best, Hayes' signal includes an electronic serial number (ESN) associated with the electronic device. However, the Office Action already classifies the ESN as the unique identifier. Furthermore, even if the ESN was a telephone number or IP address, this number is sent to and stored in the wireless programmer to keep a database of which electronic devices were updated. This is in contrast to claim 21, in which the telephone number and/or IP address is received by and stored by the programmable communicator, which according to the office action, corresponds with the electronic device not the wireless programmer.

Moreover, Hayes also fails to teach or suggest the programmable interface required by amended claim 21. The office action suggests that Hayes' system connector interface 180 constitutes the programmable interface. Applicant respectfully disagrees. Rather, Hayes' connector interface 180 is merely an electrical interface that is used by the electronic device 100 to input or output data or other signals. Nowhere does Hayes teach or suggest that the connector interface 280 is programmable.

Additionally, nowhere does Hayes teach or suggest that Hayes' system connection interface 180 is connected to a monitoring device, as required by claim 21. In fact, nowhere does Hayes teach or suggest a monitoring device at all. The office action suggests that Hayes' "external component" constitutes a monitoring device. Applicant respectfully disagrees. As mentioned above, Hayes' connection interface 180 is an electrical interface used by the electronic device. Nowhere does Hayes teach or suggest that the electronic device is a monitoring device. As is known in the art, and as the name suggests, a monitoring device is a device that monitors something (e.g., another device, a condition, etc.). Hayes' electronic device does not monitor anything. Rather, it is a device such as a cell phone that is merely updated and removed from the system. Accordingly, Hayes fails to teach or suggest all of the limitations of amended claim 21.

Anderson also fails to teach or suggest the deficiencies of Hayes. Rather, as described in Applicant's response to the Office Action dated August 3, 2007, Anderson merely teaches a call screening device that receives telephone calls, extracts caller-ID information, and compares the caller-ID information to a pre-stored list of authorized numbers. If the caller-ID information matches an entry in the pre-stored list, Anderson allows the phone to ring. Otherwise Anderson prevents the call from ringing normally.

Anderson creates the pre-stored list in a variety of ways. First, the user may simply add the telephone number to the list using the keypad. This clearly cannot constitute the authenticated transmission required by claim 21. Alternatively, the user may press the "add" button when the system is receiving an incoming call. However, this also fails to constitute the authenticated transmission required by claim 21. In particular, the transmission does not include the unique identifier required by the pending claims and the telephone number is that of the incoming caller, not a separate monitoring device. Additionally, Anderson does not include the claimed processing module to authenticate the transmission and then store the telephone number as one of the plurality of permitted callers. Instead, Anderson merely displays the telephone number and the user must then manually add the telephone number to the list by pressing "add".

Additionally, to the extent that Anderson authenticates an incoming call, as mentioned above, Anderson merely compares the incoming telephone number to the callers list. Therefore, even if the comparison to the callers list constitutes authentication, Anderson is comparing an identifier associated with the sending device, not the receiving device. Nowhere does Anderson teach or suggest authenticating the incoming transmission/telephone call based on the unique identifier associated with the receiving device. Therefore, Hayes and Anderson fail to teach or suggest, alone or in combination, all of the limitations of amended claim 21. Accordingly, amended claim 21 is allowable over the combination of Hayes and Anderson. Additionally, dependent claims 22-23, and 44-46, which depend from amended claim 21, are allowable over Hayes and Anderson for at least the same reasons.

In a manner similar to that described above with respect to amended claim 21, claim 60 also defines a method including the steps of receiving a transmission including a

unique identifier associated with the programmable communicator device, authenticating the transmission, and storing the telephone numbers and/or IP addresses (e.g., corresponding to a monitoring device) contained within the transmission in memory. Accordingly claim 60 is allowable over Hayes and Anderson for at least the same reasons as discussed above with regard to new claim 21. Additionally, dependent claim 61, which depends from claim 60, is also allowable for at least the same reasons.

The Office Action rejects claims 24-25 and 62-63 under 35 USC 103(a) as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 6,985,742 (Giniger, hereinafter "Giniger").

As dependent claims of claims 21 and 60, claims 24, 25, 62, and 63 include all of the limitations of the claims from which they depend. Accordingly, claims 24, 25, 62, and 63 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21 and 60.

Additionally, Giniger also fails to teach the deficiencies of Hayes and Anderson. In particular, Giniger merely discloses a method and apparatus for providing position-related information (e.g., a GPS system that uses a cellular telephone network). Nowhere does Giniger teach or suggest a programmable communicator device that receives a transmission having a telephone number or IP address corresponding to a monitoring device and a unique identifier from a programming transmitter, as required by amended claims 21 and 60. Therefore, Hayes, Anderson, and Giniger fail to teach or suggest, alone or in combination, all of the limitations of claims 24-25, and 62-63. Accordingly, claims 24-25, and 62-63 are allowable over Hayes, Anderson, and Giniger.

The Office Action rejects claims 26-29, 31-37, and 64-67 under 35 USC 103(a) as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 6,198,390 (Schlager, hereinafter "Schlager").

As dependent claims of claims 21 and 60, claims 26-29, 31-37, and 64-67 include all of the limitations of the claims from which they depend. Accordingly, claims 26-29, 31-37, and 64-67 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21 and 60.

Moreover, Schlager also fails to teach or suggest the deficiencies of Hayes and Anderson. In particular, Schlager's system may establish a two-way connection between a base station and a remote unit. When the remote unit detects a hazard, it sends a transmission to the base station which activates an alarm at the base station. The Office Action suggests that Schlager's remote unit constitutes the programmable communicator device. However, Schlager's remote unit is neither programmable nor configured to receive and authenticate a transmission from a programming transmitter. Moreover, nowhere does Schlager teach or suggest a transmission having a unique identifier and at least one telephone number or IP address corresponding to at least one monitoring device.

Additionally, there is no teaching or suggestion to combine the hazard sensor described in Schlager with the methods and/or devices described in Hayes and Anderson. As mentioned above, Hayes describes a programming unit that generates signals for reprogramming the memory of electronic devices such as cell phones. Hayes is a one time programming. In other words, a user may connect their cell phone to Hayes' system to update the cell phone, and then remove the cell phone from the system. Hayes has no need for any type of sensor or monitoring device that is capable of continuously monitoring the device or parameter(s) of the device because the device is disconnected once the update is complete. Likewise, Anderson has no need for a monitoring device because it is merely a call screening device that compares caller ID information to a list of numbers. Accordingly, Hayes, Anderson, and Schlager fail to teach or suggest, alone or in combination, all of the limitations of claims 26-29, 31-37, and 64-67. Accordingly, claims 26-29, 31-37, and 64-67 are allowable over Hayes, Anderson, and Schlager.

The Office Action rejects claims 30, 38-43, 47-59, and 68-70 as being unpatentable over Hayes in view of Anderson in further view of United States Patent Number 5,995,603 (Gaukel, hereinafter "Gaukel").

As dependent claims of claim 21 and 60, claims 30, 38-43, and 47-48 include all of the limitations of the claim 21. Accordingly, claims 30, 38-43, and 47-48 are allowable over Hayes and Anderson, alone or in combination, for at least the same reasons as discussed above with regards to claims 21.

Moreover, Gaukel fails to teach or suggest the deficiencies of Hayes and Anderson. Rather, Gaukel discloses a system for the continuous tracking of individuals. Gaukel's system includes a wristband, a cellular bag, and a control station. Although Gaukel's control station can upload "rules of compliance" to the cellular bag, nowhere does Gaukel teach or suggest that any components send and/or receive a transmission including at least one telephone number or IP address that may be stored in memory (e.g., as a permitted caller) if the transmission is authenticated.

Additionally, like Schlager, there is not teaching or suggestion to combine Gaukel's monitoring/tracking system with Hayes and Anderson. As mentioned above, Hayes is merely a one-time update to a cell phone and Anderson is merely a call screening device. In Hayes, the user disconnects the cell phone once the update is complete. There is no need for a system that can continuously track/monitor the cell phones. Therefore, there is no reason to combine Gaukel with the disclosures of Hayes and Anderson. Accordingly, Hayes, Anderson, and Gaukel fail to teach or suggest, alone or in combination, all of the limitations of claims 30, 38-43, and 47-48. Accordingly, claims 30, 38-43, and 47-48 are allowable over the combination of Hayes, Anderson, and Gaukel.

In a manner similar to claim 21, claims 49 and 68 describe systems and/or method including a programmable communicator device that receives and stores at least one telephone number or IP address corresponding to a monitoring device. Accordingly claims 49 and 68 are allowable over the combination of Hayes, Anderson, and Gaukel for at least the same reasons as discussed above with regard to claim 21. Additionally, dependent claims 50-59 and 69-70, which depend from claims 49 and 68, are also allowable for at least the same reasons.

It is believed that the application is now in order for allowance and Applicants respectfully request that a notice of allowance be issued. Applicants believe that a two month extension of time is required and hereby request that the associated fees be charged to Deposit Account No. 19-4972. Applicants also request that any other fee required for timely consideration of this application be charged to Deposit Account No.

19-4972. Applicants also request that the examiner contact applicant's attorney, Jonathan Lovely, if it will assist in processing this application through issuance.

DATE: September 4, 2008

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

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01503/00105 902162.1

Electronic Patent Application Fee Transmittal

Application Number:	11329212
Filing Date:	10-Jan-2006
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Filer:	Jonathan Lovely
Attorney Docket Number:	1503/105

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 2 months with $0 paid	2252	1	230	230

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**230**

Electronic Acknowledgement Receipt

EFS ID:	3886569
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	02101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	04-SEP-2008
Filing Date:	10-JAN-2006
Time Stamp:	15:57:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$230
RAM confirmation Number	1390
Deposit Account	194972
Authorized User	

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment After Final	1503_105_AfterFinalResponse.pdf	153324 e25c5c01ad6949a2dc2cd74663a7b9e18978921a	no	21
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	29664 533b196bf87442963d78063ae6b671295c2a0a2e	no	2
Warnings:					
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		Total Files Size (in bytes):	182988		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/329,212	01/10/2006	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 01/09/2008	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 50	Minus	** 50	= 0	X $25 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $105 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT 09/04/2008	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 50	Minus	** 50	= 0	X $25 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0	X $105 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/MARQUETTA MCGEE/

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/329,212	01/10/2006	Eveline Wesby Van Swaay	1503/105	6667

2101 7590 04/04/2008

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
NGUYEN, NAM V	
ART UNIT	PAPER NUMBER
2612	
MAIL DATE	DELIVERY MODE
04/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/329,212	VAN SWAAY, EVELINE WESBY	
	Examiner	Art Unit	
	NAM NGUYEN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/30/07 and 1/9/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's Amendment which is filed January 9, 2008.

An amendment to the claims 1-20 has been entered and made of record in the application of Van Swaay for a "programmable communicator" filed January 10, 2006.

Claim 1-20 is cancelled. A new set of Claims 21-70 are added.

Claims 21-70 are pending.

Response to Arguments

Applicant's arguments with respect to claims 21-70 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 21 and 60, the phrase "authenticate an at least one transmission from a programming transmitter" is confusing and unclear. It is not understood what is meant by such a limitation. How the processing module authenticates the transmission? What is the transmission (signal)? Is transmission is a signal includes at least a telephone number or IP address for authentication? Does transmission include a unique identifier? Does this transmission (signal) transmitted by the programming transmitter received by the wireless communications circuit directly or indirectly over a communication network?

Claims 21 and 24-37 recites the limitation "the programmable communicator" in line 6, there is insufficient antecedent basis for this limitation in the claim. It should be “the programmable communicator device”.

In claim 38, the phrase "wherein the programmable communicator is further configured to communicate between at least one remote monitoring device and at least one interfaced device." is confusing and unclear. It is not understood what is meant by such a limitation. What

is an interfaced device? What is a remote monitoring device? Is interface device is the same as the attached monitoring device in claim 21?

Claim 43 recites the limitation "the received data" in line 2 and "the interfaced device" in lines 3 to 5, there is insufficient antecedent basis for this limitation in the claim.

In claims 49 and 68, the phrase "a programmable interface connected to at least one wired or wireless attached monitoring device… a processing module configured to receive data from the at least one interfaced device " is confusing and unclear. It is not understood what is meant by such a limitation. What is the different between an interface device and monitoring device?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 21-23, 44-46 and 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603).

Referring to Claims 21 and 60-61, Hayes, Jr. et al. disclose an electronic device (100) (i.e. a programmable communicator device) (column 2 lines 18 to 34; see Figure 1) comprising: a wireless communications circuit (195) having an antenna (118) and configured to communicate over a communications network (column 5 lines 43 to 53; see Figure 2);

A non-volatile programmable memory (136) (i.e. a programmable identity module) having an electronic serial number (ESN) (i.e. a unique identifier associated with the programmable communicator (100)) (column 6 lines 27 to 34; see Figure 2);

A system connector interface (180) (i.e. a programmable interface) connected to at least one external component (i.e. an attached monitoring device) (column 5 lines 61 to 67; see Figure 2);

A micro-controller (120) (i.e. a processing module) configured to receive and authenticate an at least one transmission from a wireless programmer (200) (i.e. a programming transmitter), the at least one transmission including at least one telephone number or IP address (see Figures 5A to 5C), wherein the processing module (120) is configured to authenticate the at least one transmission by determining if the at least one transmission contains the ESN (i.e. a unique identifier).

However, Hayes, Jr. et al. did not explicitly disclose that a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

In the same field of endeavor of a communication system, Anderson discloses that a memory module (52) configured to store the at least one telephone number from the authenticated transmission as one of a plurality of permitted callers (column 3 lines 50 to 57;

column 5 lines 31 to 45; see Figure 3 and 5) in order to generate a distinctive ring for the caller or by redirecting the call to a separate telephone or to an answering machine.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a memory to store the telephone number from authenticated signal as an authorized callers taught by Anderson in an the electronic device for updating a memory via a wireless data transfer of Hayes, Jr. et al. because having a memory to store the authorized list of caller would improve an arrangement for screening incoming telephone calls for convenient of the user.

Referring to Claim 22, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose wherein the at least one transmission is coded and the processing module (120) is configured to process the coded transmission and permit only transmissions containing a coded number (column 9 line 39 to column 10 line 2; see Figure 5B).

Referring to Claim 23, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose wherein the wireless programmer (200) (i.e. the programming transmitter) is a portable device connected to the communications network (column 8 lines 48 to 58; see Figures 4A to 4C).

Referring to Claim 44, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose wherein the programmable

communicator device (100) is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device (column 5 lines 33 to 42; see Figure 2).

Referring to Claim 45, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose wherein the at least one transmission can be sent using a TDMA or CDMA (i.e. a messaging protocol) (column 4 lines 4 to 32)

Referring to Claim 46, Hayes, Jr. et al. in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose further comprising: a programming transmitter (200) located in the vicinity of the programmable communicator (100) (see Figure 1), and configured to receive communications over a wireless link using short-range RF communication protocol such as MC-link (column 4 lines 19 to 23; see Figure 1).

Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claims 21 and 60 and in further view of Giniger et al. (US# 6,985,742).

Referring to Claims 24-25 and 62-63, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claims 21 and 60, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose further comprising: a GPS module

configured to determine at least one location of the programmable communicator and store the at least one location into the GPS module's memory; and wherein the programmable communicator is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

In the same field of mobile communication unit, Giniger et al. disclose a GPS receiver (403) (i.e. a GPS module) configured to determine at least one location of the mobile unit (103) (i.e. the programmable communicator) (column 9 line 66 to column 10 line 14; see Figure 4) and store the at least one location into the position subsystem I/F module 421 (i.e. the GPS module's memory) (column 12 lines 10 to 20); and

wherein the mobile unit 103 (i.e. the programmable communicator) is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request (column 12 lines 21 to 40) in order to generate a history of mobile unit's location and receiving information that corresponds to the mobile unit's present location.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a GPS receiver to determine the location of the mobile unit and transmit the location to the server upon request taught by Giniger et al. in an the electronic device for updating a memory via a wireless data transfer of Hayes, Jr. et al. in view of Anderson because using a GPS receiver to determine the location of the mobile unit and transmit the location information to the server would improve position reporting easily and desired information being supplied to the user more accurate.

Claims 26-29, 31-37 and 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claims 21 and 60 and in further view of Schlager et al. (US# 6,198,390).

Referring to Claims 26 and 64, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claims 21 and 60, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose further comprising: a sensor module configured to monitor at least one condition and prompt the programmable communicator device when the at least one condition meets a threshold limit, wherein the programmable communicator device is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

In the same field of mobile remote monitoring communication unit, Schlager et al. disclose a hazard sensor 36 (i.e. a sensor module) configured to monitor excessive carbon monoxide (i.e. at least one condition) and prompt the remote unit 12 (i.e. the programmable communicator device) when the at least one condition meets a threshold limit, wherein the programmable communicator device 12 is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt (column 6 line 61 to column 7 line 4; column 25 lines 15 to 21; see Figures 1, 3 and 34) in order to create a warning to indicate the fact.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a sensor to monitor excessive carbon monoxide level and to transmit a warning signal to a receiver taught by Schlager et al. in an the electronic device and

activating a wireless update routine in the programming unit of Hayes, Jr. et al. in view of Anderson because using a sensor to measure carbon monoxide level and transmit warning signal to the receiver would improve safety of the condition in a mobile unit.

Referring to Claims 27-29, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, Schlager et al. disclose further comprising: a tamper switch 109 (i.e. a back-up communication device) located within an attachment, the back-up communication device configured to prompt the programmable communicator if the attachment is tampered (i.e. broken or opened or if there is a change in status which crosses a threshold), wherein the programmable communicator is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt (column 10 lines 14 to 22; see Figure 4).

Referring to Claims 31-37 and 65-67, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claims 21 and 60, Schlager et al. disclose a hazard sensor 100 (i.e. a remote device) configured to temperature or smoke (i.e. at least one condition) and prompt the remote unit 12 (i.e. the programmable communicator device) when the at least one condition meets a threshold limit, wherein the programmable communicator device 12 is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt (column 6 line 61 to column 7 line 4; column 25 lines 15 to 21; see Figures 3 and 34) in order to create a warning to indicate the fact.

Claims 30, 38-43, 47-59 and 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes, Jr. et al. (US# 5,974,312) in view of Anderson (US# 5,995,603) as applied to Claims 21 and 60 and in further view of Gaukel (US# 6,072396).

Referring to Claim 30, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose a secondary power supply configured to provide power to the programmable communicator if a primary power supply fails or is removed, wherein the programmable communicator is further configured to transmit an alarm message including a location of the programmable communicator if the primary power supply fails or is removed.

In the same field of mobile remote monitoring communication unit, Gaukel disclose a back up battery (58) (i.e. secondary power supply) configured to provide power to the programmable communicator (30) if a main battery (38) (i.e. primary power supply) fails or is removed, wherein the programmable communicator (30) is further configured to transmit an alarm message including a location of the programmable communicator (30) if the primary power supply (38) fails or is removed (column 14 line 65 to column 15 line 15; see Figure 5) in order to avoid imminent rule violation and to get service at the report position.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a back-up battery if the main power failed or removed and calling the central tracking to report the position of the cellular bag taught by Gaukel in an the electronic device and activating a wireless update routine in the programming unit of Hayes, Jr. et al. in view of Anderson because using the back-up battery if the main power failed or removed

and reporting to the central tracking station the exact position would improve service and avoid violation.

Referring to Claims 38-39, 49-51, 54 and 68, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claim 21, however, Hayes, Jr. et al. in view of Anderson disclose did not explicitly disclose further comprising wherein the programmable communicator device is further configured to communicate between at least one remote monitoring device and at least one interfaced device; and wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

In the same field of mobile remote monitoring communication unit, Gaukel disclose a body cellular bag device (30) configured to link with a wristband device 20 and communicate with central control tracking station 40 (column 11 lines 13 to 20; see Figures 1-5); and the wristband device 20 monitors blood pressure or heart rate (column 12 lines 12 to 32; see Figure 1) in order to create a warning signal to indicate the fact of the given use environment.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to use a sensor to monitor excessive carbon monoxide level and to transmit a warning signal to a receiver taught by Gaukel in an the electronic device and activating a wireless update routine in the programming unit of Hayes, Jr. et al. in view of

Anderson because using a sensor to measure carbon monoxide level and transmit warning signal to the receiver would improve safety of the condition in a mobile unit.

Referring to Claims 40 and 55, Hayes, Jr. et in view of Anderson and Gaukel disclose the programmable communicator device according to claim 38, Gaukel discloses wherein the at least one interfaced device (20) is at least one of a life vest monitoring device or a pressure monitoring device (column 10 lines 53 to 60).

Referring to Claims 41-42 and 57, Hayes, Jr. et in view of Anderson and Gaukel disclose the programmable communicator device according to claims 38 and 49, Gaukel discloses wherein at least one interfaced device (20) is linked to the programmable communicator (30) via a wireless connection (column 13 lines 48 to 52; see Figure 2); and wherein the wireless connection comprises a wireless interface, wherein the programmable communicator (30) is further configured to gather data from the at least one remote device (20), process the data, and send the processed data to control station (40) (column 12 lines 12 to 32; see Figure 7).

Referring to Claims 43 and 56, Hayes, Jr. et in view of Anderson disclose the programmable communicator device according to claims 21 and 49, Gaukel discloses wherein the received data includes data relating to at least one of changes in temperature of the interfaced device or motion changes (column 12 lines 12 to 32; see Figure 1).

Referring to Claims 47-48, Hayes, Jr. et al. in view of Anderson disclose the programmable communicator device according to claim 21, Hayes, Jr. et al. disclose further comprising: the programmable communicator (30) is further configured to receive data from at least one data monitoring devices (20) and transmit the received data to central station (column 12 lines 12 to 32; see Figures 1, 2 and 7).

Referring to Claims 52 and 69-70, Hayes, Jr. et al. in view of Anderson and Gaukel disclose the programmable communicator device according to claims 49 and 68, Gaukel discloses wherein the data received from the at least one interfaced device (20) is sent in response to a request from the remote control station (40) (i.e. the at least one remote monitoring device) (column 11 lines 30 to 65; see Figure 1).

Referring to Claim 53, Hayes, Jr. et al. in view of Anderson and Gaukel disclose the programmable communicator device according to claim 49, Gaukel discloses wherein the data received from the at least one interfaced device (20) is sent periodically (column 12 lines 33 to 44).

Referring to Claim 58, Hayes, Jr. et al. in view of Anderson and Gaukel disclose the programmable communicator device according to claim 49, Anderson discloses wherein the at least one telephone number stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter (column 3 lines 50 to 57; see Figure 5).

Referring to Claim 59, Hayes, Jr. et in view of Anderson and Gaukel disclose the programmable communicator device according to claim 49, Gaukel discloses wherein the control station (i.e. the programming transmitter) is a device having a network communication (i.e. a web interface) (column 9 lines 5 to 13; see Figure 1).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gonzales (US# 7,084,771) discloses a child alert system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Brian Zimmerman can be reached on 571- 272-3059. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system,, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/N. N./
Examiner, Art Unit
March 29, 2008

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612

Notice of References Cited	Application/Control No. 11/329,212	Applicant(s)/Patent Under Reexamination VAN SWAAY, EVELINE WESBY	
	Examiner NAM NGUYEN	Art Unit 2612	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,072,396	06-2000	Gaukel, John J.	340/573.4
*	B	US-6,198,390	03-2001	Schlager et al.	340/540
*	C	US-6,985,742	01-2006	Giniger et al.	455/456.1
*	D	US-7,084,771	08-2006	Gonzalez, Thomas A	340/573.1
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	Art Unit
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008								
	1	-								
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	4	-								
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	36	✓								

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	Examiner	Art Unit
	NAM NGUYEN	2612

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/29/2008								
	37	✓								
	38	✓								
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	40	✓								
	41	✓								
	42	✓								
	43	✓								
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	68	✓								
	69	✓								
	70	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11329212	VAN SWAAY, EVELINE WESBY
	Examiner	**Art Unit**
	NAM NGUYEN	2612

SEARCHED

Class	Subclass	Date	Examiner
340	573.4; 539; 693.5; 825.32; 825.49;	3/28/08	NN
455	456.1; 456.2;418-419; 425	3/28/08	NN
379	142; 373;375	3/28/08	

SEARCH NOTES

Search Notes	Date	Examiner
Search EAST: US-PUB; USPAT; EPO; JPO and Derwent.	3/28/08	NN
Search Term: authorized list in cellular phone with monitoring device or sensor; monitoring central station	3/28/08	NN

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	**Reference Number**	**Document Number**	**Issue Date**	**Inventor**	**Class/Subclass**
/N.N./	**BC**	**US 5,974,312**	**Oct. 26, 1999**	**Hayes, Jr., et al.**	**455/419**

FOREIGN PATENT DOCUMENTS						
Examiner Initials	**Reference Number**	**Country Code**	**Document Number**	**Publication Date**	**Patenteee or Applicant**	**Class/Subclass**
/N.N./	**BD**	**WO**	**99/34339**	**8 July 1999**	**Bennett et al.**	**G08B**
/N.N./	**BE**	**WO**	**00/56016**	**21 Sept. 2000**	**Albrecht, Thomas**	**H04L**
/N.N./	**BF**	**WO**	**00/70889**	**23 Nov. 2000**	**Saltzstein, Wm. E. et al.**	**H04Q**
/N.N./	**BG**	**WO**	**01/03414**	**11 Jan. 2001**	**Crookham, Joe P. et al.**	**H04M**

Examiner Signature: /Nam Nguyen/

Date Considered: 03/29/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	**Reference Number**	**Document Number**	**Issue Date**	**Inventor**	**Class/Subclass**
/N.N./	**BH**	**US 5,960,366**	**Sept. 28, 1999**	**Duwaer**	**455/556**

FOREIGN PATENT DOCUMENTS						
Examiner Initials	**Reference Number**	**Country Code**	**Document Number**	**Publication Date**	**Patenteee or Applicant**	**Class/Subclass**
/N.N./	**BI**	**EP**	**0 432 746**	**June 19, 1991**	**Siemens Nixdorf**	**H04M 1/57**
	BJ	**EP**	**0 524 652**	**Jan. 27, 1993**	**Atkins et al.**	**H04M 1/274**
	BK	**JP**	**07 087211**	**March 31, 1995**	**Fujifacon Corp.**	**H04M 11/00**
	BL	**EP**	**0 772 336**	**May 7, 1997**	**Staeuli et al.**	**H04M 9/00**
	BM	**WO**	**97/23104**	**June 26, 1997**	**Valemtine**	**H04Q 7/22**
	BN	**DE**	**196 25 581**	**Dec. 18, 1997**	**Plaas-Link**	**H04M 1/30**
	BO	**EP**	**1 013 055**	**Sept. 9, 1998**	**Wesby**	**H04M 1/274**
	BP	**WO**	**98/51059**	**Nov. 12, 1998**	**Padzersky**	**H04M 1/72**
/N.N./	**BQ**	**WO**	**99/13629**	**March 18, 1999**	**Wesby**	**H04M 1/72**

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

OTHER DOCUMENTS			
Examiner Initials	**Reference Number**	**Author**	**Title of Article, Title of Journal, Volume Number, Page Numbers, Date**
/N.N./	**BR**	**Fujifacon Corp.**	**Patent Abstract of JP 07 087211, TITLE: Incoming call switching display device for facsimile – uses combination of colour or different audio tones to identify incoming call and carry out selection of telephone, March 31, 1995**
/N.N./	**BS**	**Hitachi Ltd.**	**Patent Abstract of JP 09 064950**
/N.N./	**BT**		**Examination Report, EP 01 945 162, references made to documents cited in the European Search Report, May 21, 2003**

Examiner Signature: /Nam Nguyen/

Date Considered: 03/29/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: 01/10/2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. Transmitted herewith is a Supplemental Response and Information Disclosure Statement, including references, for this application.

STATUS

2. Applicant is a small entity. A statement was already filed.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col. 1)		(Col. 2)		(Col. 3)		SMALL ENTITY			
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE			ADDIT. FEE
TOTAL	50	–	50	=	0	x	$ 25.00	=	$	0.00
INDEP.	4	–	4	=	0	x	$ 105.00	=	$	0.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM						+	$ 0.00	=	$	0.00
							TOTAL ADDIT. FEE		$	0.00

No additional fee for claims is required.

FEE DEFICIENCY

5. If an additional extension and/or fee is required, charge Account No. 19-4972.

If an additional fee for claims is required, charge Account No. 19-4972.

Date: January 9, 2008

/Jonathan C. Lovely, #60,821/
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01503/00105 800467.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

FILED BY USPTO ELECTRONIC FILING SYSTEM

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL RESPONSE

Dear Sir:

Applicant respectfully submits this supplemental response and requests that the following amendments and remarks be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module~~, the programmable identity module being remotely programmable and~~ having a unique identifier associated with the programmable communicator;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including at least one telephone number or IP address, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

22. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (Previously Presented) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (Previously Presented) A programmable communicator according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator and store the at least one location into the GPS module's memory; and

wherein the programmable communicator is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (Previously Presented) A programmable communicator according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator and generate at least one signal representative of the programmable communicator's location according to a remote locating technology,

wherein the programmable communicator is further configured to transmits the at least one signal representative of the programmable communicator's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator based on the at least one signal.

26. (Previously Presented) A programmable communicator according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator when the at least one condition meets a threshold limit, wherein the programmable communicator is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (Previously Presented) A programmable communicator according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (Previously Presented) A programmable communicator according to claim 27, wherein the attachment is a wrist strap.

29. (Previously Presented) A programmable communicator according to claim 27, wherein the attachment is a smart clothes attachment.

30. (Previously Presented) A programmable communicator according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator if a primary power supply fails or is removed, wherein the programmable communicator is further configured to transmit an alarm message including a location of the programmable communicator if the primary power supply fails or is removed.

31. (Previously Presented) A programmable communicator according to claim 21 wherein the programmable communicator is linked to at least one remote device.

32. (Previously Presented) A programmable communicator according to claim 31, wherein the programmable communicator is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (Previously Presented) A programmable communicator according to claim 32, wherein the programmable communicator is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (Previously Presented) A programmable communicator according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (Previously Presented) A programmable communicator according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (Previously Presented) A programmable communicator according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator detects a change in status of the at least one remote devices.

37. (Previously Presented) A programmable communicator according to claim 36, further comprising:

an alarm module configured to send an alarm message to the external device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator is further configured to communicate between at least one remote monitoring device and at least one interfaced device.

39. (Previously Presented) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous

electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (Previously Presented) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (Previously Presented) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator via a wireless connection.

42. (Previously Presented) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator is further configured to gather data from the at least one remote device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (Previously Presented) A programmable communicator device according to claim 21, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (Previously Presented) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (Previously Presented) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (Previously Presented) A programmable communicator device according to claim 21, wherein,

the programmable communicator is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (Previously Presented) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (Currently Amended) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module~~, the programmable identity module being remotely programmable and~~ having a unique identifier;

a programmable interface connected to at least one wired or wirelessly attached monitoring device;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring center as one of a plurality of permitted callers; and

a processing module configured to receive data from the at least one interfaced device and determine if the received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a transmission to the at least one remote monitoring device if the change in status crosses the threshold, the transmission including the unique identifier.

50. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (Previously Presented) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (Previously Presented) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (Previously Presented) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (Previously Presented) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (Previously Presented) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60. (Previously Presented) A method for remotely programming and monitoring a communicator device comprising:

receiving at least one transmission from a programming transmitter in a processing module, the transmission including at least one telephone number or IP address;

authenticating the least one transmission by determining if the at least one transmission includes a unique identifier associated with the communicator device; and

storing the at least one telephone number or IP address contained within the at least one transmission into memory.

61. (Previously Presented) A method according to claim 60, wherein the memory includes a permitted callers list and wherein the at least one telephone number or IP address is stored within the permitted callers list.

62. (Previously Presented) A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

determining the location of the programmable communicator using a GPS module;

transmitting the location of the programmable communicator to at least one telephone number or IP address stored in memory.

63. (Previously Presented)A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

processing the authenticated location request; and

generating at least one signal representative of the programmable communicator's location;

transmitting the at least one signal to a location determination center, wherein the location determination center determines programmable communicator's location based on the at least one signal representative of the programmable communicator's location.

64. (Previously Presented) A method according to claim 60 further comprising:

monitoring at least one condition;

prompting the programmable communicator when the at least one condition meets a threshold limit; and

sending a transmission to at least one of the telephone numbers or IP addresses stored within the memory, the programmable communicator sending the transmission in response to the prompt.

65. (Currently Amended) A method according to claim 60, further comprising:

receiving a command from an authenticated programming transmitter, the command prompting ~~the command prompting~~ the programmable communicator to instruct at least one remote device linked to the programmable communicator to read the command;

instructing the at least one remote device to read the command in response, wherein the at least one remote device performs a task and monitors at least one parameter in response to the command, the at least one remote device periodically storing monitored parameter data to a memory module;

relaying the stored monitored parameter data to at least one of the telephone numbers or IP addresses stored in memory.

66. (Previously Presented) A method according to claim 65 further comprising:

sending a status report transmission to an external device associated with the at least one telephone number or IP address stored in memory when the programmable communicator detects a change in status of the least one remote devices.

67. (Previously Presented) A method according to claim 66 further comprising:

sending an alarm message to the external device, the alarm message indicating a current status of the at least one remote device.

68. (Previously Presented) A method for using a programmable communicator comprising:

establishing communication between the programmable communicator, at least one remote monitoring device, and at least one interfaced device over a communications network;

storing at least one telephone number or IP address of the at least one remote monitoring device in memory;

receiving data from the at least one interfaced device;

processing the data received from the at least one interfaced device to determine whether received data indicates a change in status of the least one interfaced device that crosses a threshold; and

sending a transmission to the at least one remote monitoring device if the change in status crosses the threshold.

69. (Previously Presented) A method according to claim 68 further comprising:

sending a request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

70. (Previously Presented) A method according to claim 68 further comprising:

receiving a request for data from the at least one remote monitoring devices; and

sending the request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

REMARKS

Further to Applicant's response dated November 30, 2007, Applicant submits this supplemental response to further amend the currently pending claims. In particular, Applicant has amended claims 21 and 49 to include the limitation of "a programmable interface connected to at least one wired or wirelessly attached monitoring device" and to remove the limitation requiring that the programmable identity module be remotely programmable. Applicant's would like to point out that neither United States Patent Number 5,276,729 cited in the Information Disclosure Statement dated January 10, 2006 nor European Patent EP 1013055 cited in the Information Disclosure Statement filed herewith teach a programmable interface, as required by the amended claims. Please note that EP 1013055 is related to PCT/GB98/02715 discussed in the Background of the Invention section of the present application. Additionally, claim 65 has been amended to correct a typographical error. No new claims have been added and no claims have been deleted. Thus, claims 21-70 are currently pending in the application. Additionally, support for the amendments to claims 21 and 49 can be found at paragraph 63 of the published application.

Applicant believes that the discussion contained within Applicant's response dated November 30, 2007 relating to the prior art cited in the Office Action dated August 3, 2007 is still valid and that the claims, as amended, are allowable over the prior art for the reasons discussed therein. Accordingly, Applicant believes that the application is in order for allowance and respectfully requests that a notice of allowance be issued.

Applicant also requests that any fee required for timely consideration of this application be charged to Deposit Account No. 19-4972. Applicant also requests that the examiner contact applicant's attorney, Jonathan Lovely, if it will assist in processing this application through issuance.

DATE: January 9, 2008

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

Jonathan C. Lovely
Registration No. 60,821
Attorney for Applicant

Bromberg & Sunstein LLP
125 Summer Street
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(617) 443-9292
01503/00105 795156.1

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wesby Van Swaay, Eveline

Application No.: 11/329,212
Filed: January 10, 2006
For: **Programmable Communicator**

Group No.: 2612
Examiner: Nguyen, Nam V.

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT BEFORE MAILING DATE OF EITHER A FINAL ACTION OR NOTICE OF ALLOWANCE (37 C.F.R. § 1.97(c))

TIME OF TRANSMITTAL OF ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

1. The information disclosure statement transmitted herewith is being filed ***after*** three months of the filing date of this national application or the date of entry of the national stage as set forth in Section 1.491 in an international application or after the mailing date of the first Office action on the merits, whichever event occurred last but ***before*** the mailing date of either

   (1) a final action under § 1.113 or
   (2) a notice of allowance under § 1.311

   whichever occurs first.

FEE

2. Accompanying this transmittal is the fee for submission of an information disclosure statement under section 1.97(c). ($180.00)

FEE PAYMENT

3. Applicant elects the option to pay the fee set forth in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under § 1.97(c) ($180.00).

Fee due $180.00

METHOD OF PAYMENT OF FEE

4. Authorization is hereby made to charge the amount of $180.00 to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment to Deposit Account No. 19-4972.

A duplicate of this paper is attached.

DATE: January 9, 2008

/Jonathan Lovely, #60,821/

Jonathan Lovely, Esq.
BROMBERG & SUNSTEIN LLP
Customer Number 02101
125 Summer Street
Boston, MA 02110-1618
US

01503/00105 800116.1

Practitioner's Docket No. 1503/105 ***PATENT***

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wesby Van Swaay, Eveline
Application No.: 11/329,212 Group No.: 2612
Filed: January 10, 2006 Examiner: Nguyen, Nam V.
For: **Programmable Communicator**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant:
(1) Within three months of the filing date of a national application;
(2) Within three months of the date of entry of the national stage as set forth in section 1.491 in an international application; or
(3) Before the mailing date of a first Office action on the merits, whichever event occurs last." 37 C.F.R. section 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. section 1.56(a).
"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
(1) each inventor named in the application;
(2) each attorney or agent who prepares or prosecutes the application; and
(3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. section 1.56(c).

NOTE: The "duty as described in section 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by sections 1.97(b) - (d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O.G. 13-25 at 17.

***WARNING:** "No information disclosure statement may be filed in a provisional application." 37 C.F.R. section 1.51(b).*

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: discard unused sections and number pages consecutively)

1. [x]Preliminary Statements
2. [x]Forms PTO/SB/08A and 08B (substitute for Form PTO-1449)
3. [ ]Statement as to Information Not Found in Patents or Publications
4. [ ]Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. [ ]Cumulative Patents or Publications
6. [x]Copies of Listed Information Items Accompanying This Statement
7. [ ]Concise Explanation of Non-English Language Listed Information Items
   - 7A. [ ]EPO Search Report
   - 7B. [ ]English Language Version of EPO Search Report
8. [ ]Translation(s) of Non-English Language Documents
9. [ ]Concise Explanation of English Language Listed Information Items (Optional)
10. [x]Identification of Person(s) Making This Information Disclosure Statement

(complete the following, if appropriate)

Sections , respectively, have been continued on ADDED PAGE(S).

NOTE :"Once the minimum requirements are met, the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

Section 1. Preliminary statements

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. section 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	**Reference Number**	**Document Number**	**Issue Date**	**Inventor**	**Class/Subclass**
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	BM	**WO**	**97/23104**	**June 26, 1997**	**Valemtine**	**H04Q 7/22**
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	BP	**WO**	**98/51059**	**Nov. 12, 1998**	**Padzersky**	**H04M 1/72**
	BQ	**WO**	**99/13629**	**March 18, 1999**	**Wesby**	**H04M 1/72**

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

OTHER DOCUMENTS			
Examiner Initials	**Reference Number**	**Author**	**Title of Article, Title of Journal, Volume Number, Page Numbers, Date**
	BR	**Fujifacon Corp.**	**Patent Abstract of JP 07 087211, TITLE: Incoming call switching display device for facsimile – uses combination of colour or different audio tones to identify incoming call and carry out selection of telephone, March 31, 1995**
	BS	**Hitachi Ltd.**	**Patent Abstract of JP 09 064950**
	BT		**Examination Report, EP 01 945 162, references made to documents cited in the European Search Report, May 21, 2003**

Examiner Signature: _____

Date Considered: _____

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.

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NOTE: 37 C.F.R. section 1.98(a)(2) requires that any information disclosure statement filed under section 1.97 shall include: "A legible copy of: (1) Each U.S. and foreign patent; (ii) Each publication or that portion which caused it to be listed; and (iii) All other information or that portion which caused it to be listed, except that no copy of a U.S. patent application need be included . . ."

NOTE: The wording in section 1.98(a)(2)(iii) makes it clear that the requirement to submit a copy of each item of information listed in an information disclosure statement does not apply to the citation of a U.S. patent application. Notice of January 9, 1992, 1135 O.G. 13-25, at 14.

Legible copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement.

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[ ]Items in prior application, from which an earlier filing date is claimed for this application, as identified in Section 4.

[ ]Cumulative patents or publications identified in Section 5.

Section 8. Translation(s) of Non-English Language Documents

NOTE: "If a written English language translation of a non-English language document, or portion thereof, is within the possession, custody or control of, or is readily available to any individual designated in section 1.56(c), a copy of the translation shall accompany the statement." 37 C.F.R. section 1.98(c).

NOTE: "The Office does not intend to require translations unless they have been reduced to writing and are actually translations of what is contained in the non-English language information. Applicants should note, however, that most examiners do not have the ability to understand information which is not in English and that the Office will not routinely translate information submitted in a non-English language. The examiner will consider the information insofar as it is understood on its face, e.g., drawings, chemical formulas, English language abstracts, but will not have the information translated unless it appears to be necessary to do so. Applicants are required to aid the examiner by complying with the requirements for a concise explanation in section 1.98(a)(3) for information submitted in a non-English language." Notice of January 9, 1992, 1135 O.G. 13-25, at 21.

NOTE: "The examiner will indicate that the non-English language information has been considered in the same manner as consideration is indicated for information submitted in English." Notice of April 20, 1992 (1138 O.G. 37-41, 41).

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The person making this certification is

(check each applicable item)

(a) [ ]the inventor(s) who signs below

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

(b) [ ]an individual associated with the filing and prosecution of this application (37 C.F.R. section 1.56(c))

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

(c) [x] the practitioner who signs below on the basis of the information:

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[ ] supplied by the inventor(s).

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[x] in the practitioner's file.

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US-A- 4 304 968
ERICSSON REVIEW Bd. 65, Nr. 4, 1988, STOCKHOLM SE Seiten 144 - 151; KILANDER ET AL: 'BCS 150 A DIGITAL BUSINESS COMMUNICATIONS SYSTEM'
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Philips TDS Review, Vol.47, Nr.1, März 89, Seiten 1-14; C.M.Klik: "The SOPHO-SET family of digital telephone terminals for SOPHO-S PABXs"

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Beschreibung

Die Erfindung betrifft ein Telekommunikations-Endgerät mit Zielwahltasten und zugeordnetem Rufnummernspeicher für eine Telekommunikationsanlage, in der die Rufnummer eines rufenden Teilnehmers zu dem Endgerät des gerufenen Teilnehmers übertragen wird.

Ein Telekommunikations-Endgerät dieser Art ermöglicht einerseits die Zielwahl, bei der durch Betätigen einer Zielwahltaste, die z.B. mit dem Namen eines Teilnehmers versehen ist, eine in dem Rufnummernspeicher gespeicherte Rufnummer automatisch gewählt wird. Andererseits ermöglicht es auch eine Anzeige der Rufnummer eines rufenden Teilnehmers, da diese zu dem Endgerät des gerufenen Teilnehmers übertragen wird.

Bei dem ISDN-Telekommunikationssystem besteht eines der vorgesehenen Dienstmerkmale in einer Anruferliste, die in der Vermittlungseinrichtung vorgesehen ist und in die ein rufender Teilnehmer seine Rufnummer eintragen kann, sofern er den gerufenen Teilnehmer nicht erreicht. Der gerufene Teilnehmer kann die Anruferliste abfragen und feststellen, welche anderen Teilnehmer eine Verbindung mit ihm gewünscht haben. Diese Abfrage ist nur in zeitlicher Reihenfolge der Einträge in die Anruferliste möglich. Die Eintragung des Namens eines rufenden Teilnehmers ist nicht vorgesehen.

In dem Artikel Klik, C.M.: "The SOPHO-SET family ...", Philips TDS-review, Vol. 47, Nr. 1, März 89, Seiten 1 bis 14 sowie in dem Artikel Boltjes, C.J.: "Facilities for users of SOPHO-SET feature phones", Philips TDS-review, Vol. 48, Nr. 1, März 90, Seiten 20 bis 26 ist jeweils ein Telekommunikationsendgerät für eine Telekommunikationsanlage beschrieben, in der die Rufnummer eines rufenden Teilnehmers zu dem Endgerät des gerufenen Teilnehmers übertragen wird. In diesem Endgerät ist eine Rufnummerndatei enthalten, in der einzelnen Rufnummern Teilnehmernamen zugeordnet sind. Das beschriebene Endgerät speichert bei jedem erfolglos eingehenden Anruf die Nummer des erfolglos rufenden Teilnehmers in Verbindung mit dem Zeitpunkt des Anrufversuchs. Unabhängig von diesem Speichervorgang wird, falls die Nummer des Anrufers in der Datei einem Namen zugeordnet ist, dieser Name ebenfalls gespeichert und bei Anfrage angezeigt. Das beschriebene Endgerät ist hierbei mit einem Mikroprozessor, Programmspeicher und Arbeitsspeicher ausgestattet.

Aufgabe der vorliegenden Erfindung ist es, auf einfache Weise an einem Telekommunikationsendgerät erfolglose Anrufversuche von für den Teilnehmer des Telekommunikationsendgerätes wichtigen Teilnehmern anzuzeigen.

Diese Aufgabe wird gelöst durch ein Telekommunikationsendgerät mit den Merkmalen des Patentanspruches 1. Günstige Ausgestaltungen sind Gegenstand von Unteransprüchen.

Wenn die Rufnummer eines rufenden Teilnehmers zu dem Endgerät des gerufenen Teilnehmers übertragen wird, so kann sie bei einem Telekommunikations-Endgerät nach der Erfindung in bisher bekannter Weise angezeigt werden. Gleichzeitig wird sie aber auch zum Erzeugen eines Schaltkriteriums genutzt, mit dem die Anzeigevorrichtung aktiviert wird. Dieses Schaltkriterium wird dann erzeugt, wenn die zum Endgerät übertragene Rufnummer des rufenden Teilnehmers mit einer der in dem Rufnummernspeicher dieses Endgeräts enthaltenen Rufnummern übereinstimmt. Wenn der Zielwahltaste, die der gespeicherten Rufnummer zugeordnet ist, ihrerseits eine Anzeigevorrichtung zugeordnet ist, so kann diese bei positivem Vergleichsergebnis aufgrund der Zuordnung zwischen Zielwahltaste und gespeicherter Rufnummer ausgewählt und aktiviert werden. Auf diese Weise findet der gerufene Teilnehmer nach Eingehen erfolgloser Anrufe ein Endgerät vor, bei dem eine oder mehrere Zielwahltasten durch die aktivierte Anzeigevorrichtung markiert sind, so daß der Teilnehmer die unmittelbare Information über den Namen des jeweils rufenden Teilnehmers erhält und gegebenenfalls Rückrufe durch Betätigen der Zielwahltasten oder aber auch durch direktes Wählen ausführen kann. Durch das Betätigen der Zielwahltasten können die entsprechenden aktivierten Anzeigevorrichtungen wieder gelöscht werden.

Eine Anzeigevorrichtung kann mehreren Zielwahltasten zugeordnet sein. In diesem Fall muß die Eindeutigkeit der Anzeige für die jeweilige Zielwahltaste durch unterschiedlichen Anzeigezustand der Anzeigevorrichtung gewährleistet sein. Beispielsweise kann eine Anzeigelampe für zwei Zielwahltasten mit unterschiedlicher Helligkeit betrieben werden oder mit unterschiedlicher Frequenz intermittierend geschaltet werden. Vorteilhaft ist jedoch jeder Zielwahltaste eine Anzeigevorrichtung zugeordnet. Dann entspricht der Umfang der möglichen Namenskennzeichnungen der Anzahl durch die Zielwahl er reichbarer Teilnehmer, und die Markierung der jeweiligen Zielwahltaste ist eindeutig.

Eine gemeinsame Anzeigevorrichtung kann allen Zielwahltasten zugeordnet sein und bei einem positiven Vergleichsergebnis aktiviert werden. Ihr ist dann eine Taste zugeordnet, durch deren Betätigung die gespeicherte Auswahl der Aktivierung der einer Zielwahltaste zugeordneten Anzeigevorrichtung freigegeben wird. Durch diese Weiterbildung der Erfindung wird die Ruhestromaufnahme des Telekommunikations-Endgeräts minimal gehalten, denn zunächst ist nur die gemeinsame Anzeigevorrichtung aktiviert. Bei Überprüfung des Endgeräts kann der Teilnehmer die der gemeinsamen Anzeigevorrichtung zugeordnete Taste betätigen und erhält dann die vollständige Information über die Namen aller während seiner Abwesenheit rufenden Teilneh-

mer, die durch seine Zielwahltasten erfaßt sind.

Wenn das Telekommunikations-Endgerät Teil einer Fernsprech-Nebenstellenanlage ist, so können für die Zielwahl gespeicherte Rufnummern gegenüber ihnen entsprechenden, von einem rufenden Teilnehmer aus übertragenen Rufnummern unterschiedlich sein, denn in Nebenstellenanlagen werden den Rufnummern bei der Wahl externer Teilnehmer besondere Ziffern vorangestellt, mit denen der Zugang in das öffentliche Fernsprechnetz möglich ist. Solche Ziffern werden bei der Übertragung der Rufnummer eines rufenden Teilnehmers nicht mit übertragen, so daß bei dem erfindungsgemäß vorgesehenen Vergleich zweier Rufnummern kein positives Vergleichsergebnis möglich wäre, auch wenn die verglichenen Rufnummern ein und demselben Teilnehmer zugeordnet sind. Um eine entsprechende Fehlfunktion zu vermeiden, ist das Endgerät in weiterer Ausbildung des Erfindungs gedankens derart aufgebaut, daß der Vergleich hinsichtlich der Stellenzahl zweier Rufnummern und danach hinsichtlich der Stellenwerte einer vorbestimmten Anzahl einander entsprechender Stellen erfolgt, welche die Endabschnitte der zu vergleichenden Rufnummern bilden.

Bei dieser Weiterbildung ist es möglich, den Vergleich der beiden Rufnummern mit Abschnitten übereinstimmender Länge durchzuführen, so daß eine der einen Rufnummer vorangestellte Ziffer oder Ziffernfolge in den Vergleich nicht einbezogen wird. Dadurch wird ein positives Vergleichsergebnis auch dann erhalten, wenn sich zwei zu vergleichende Rufnummern durch eine vorangestellte Ziffer unterscheiden oder wenn eine für die Zielwahl gespeicherte Rufnummer eine sogenannte Codewahl-Rufnummer ist, deren entsprechende vollständige Rufnummer in der Zentrale der Nebenstellenanlage gespeichert ist.

Wenn bei der zuletzt beschriebenen Weiterbildung der Erfindung nur relativ kurze Endabschnitte zweier Rufnummern miteinander verglichen werden, um z.B. vorangestellte Codewahl-Rufnummernabschnitte nicht in den Vergleich einzubeziehen, so kann ein positives Vergleichsergebnis möglicherweise auch dann entstehen, wenn die verglichenen Rufnummern in dem nicht in den Vergleich einbezogenen Abschnitt unterschiedlich sind, in den miteinander verglichenen Abschnitten jedoch übereinstimmen. Um dennoch durch das Betätigen der dann falsch markierten Zielwahltaste den richtigen Teilnehmer zu erreichen, wird in einer Weiterbildung der Erfindung bei positivem Vergleichsergebnis die übertragene Rufnummer gespeichert. Diese kann dann bei Betätigung der falsch markierten Zielwahltaste anstelle der dieser zugeordneten gespeicherten Rufnummer ausgegeben werden.

Die Erfindung wird im folgenden an Hand der Zeichnung näher erläutert. Darin zeigen:

Fig. 1 die Draufsicht auf ein Telekommunikations-Endgerät,

Fig. 2 eine Blockdarstellung des für die Erfindung relevanten Teils der Steuerung des Endgeräts nach Fig. 1,

Fig. 3 Darstellungen von Rufnummern und Zielwahlnummern und

Fig. 4 das Flußdiagramm des Ablaufs eines Vergleichsvorgangs für Zielwahlnummern und empfangene Rufnummern.

In Fig. 1 ist die Oberseite eines Telekommunikations-Endgeräts 10 dargestellt. Dieses enthält im wesentlichen ein Anzeigefeld 11 für den Verbindungsaufbau zu einem anderen Endgerät betreffende Informationen, eine numerische Tastatur 12 zum Eingeben von Wählinformationen sowie ein Zielwahltastenfeld 13 mit Zielwahltasten 14, denen jeweils eine Anzeigevorrichtung 15 zugeordnet ist. Die Zielwahltasten 14 sind mit Namen versehen, soweit sie mit Zielwahlnummern belegt sind. Beim Betätigen einer der Zielwahltasten 14 wird automatisch eine in einem Rufnummernspeicher enthaltene Zielwahlnummer von dem Endgerät 10 ausgegeben.

Auf der linken Seite der Deckfläche des Endgeräts 10 ist zwischen dem Anzeigefeld 11 und dem Zielwahltastenfeld 13 eine Anzeigevorrichtung 16 angeordnet, der eine Taste 17 zugeordnet ist.

Die Anzeigevorrichtungen 15 und 16 können zum Beispiel Leuchtdioden oder bistabile Anzeigevorrichtungen sein, wie sie für Endgeräte dieser Art an sich bekannt sind. Die Erfindung sieht vor, daß beim Eingehen von Anrufen, die nicht beantwortet werden, jeweils eine Anzeigevorrichtung 15 aktiviert wird, sofern der Anrufer identisch ist mit dem Teilnehmer, dem die entsprechende Zielwahltaste 14 zugeordnet ist. Der Teilnehmer des in Fig. 1 gezeigten Endgeräts 10 kann dann unmittelbar erkennen, welche der Zielwahlteilnehmer in seiner Abwesenheit einen Verbindungswunsch hatten, und kann gegebenenfalls durch Betätigen der entsprechenden Zielwahltasten 14 Rückrufe vornehmen, wodurch die jeweilige Anzeigevorrichtung auch wieder gelöscht werden kann.

Die Anzeigevorrichtung 16 ist allen Zielwahltasten 14 zugeordnet und kann so gesteuert werden, daß sie als einzige Anzeigevorrichtung aktiviert ist, wenn mindestens ein erfolgloser Anruf eingegangen ist. Durch Betätigen der ihr zugeordneten Taste 17 wird dann in noch zu beschreibender Weise die Aktivierung derjenigen Anzeigen 15 veranlaßt, die den Zielwahltasten 14 für die rufenden Teilnehmer zugeordnet sind.

Fig. 2 zeigt in einer Blockdarstellung die Steuereinrichtung für den Teil des Endgeräts 10, der für die Erfindung wesentlich ist. Eine zentrale Steuerung 20 erhält Informationen von den Tastenfeldern des Endgeräts 10, die in Fig. 2 als Einheit TF mit 21 bezeichnet sind. Die Steuerung 20 trägt die Rufnummer eines anrufenden Teilnehmers, die zu dem Endgerät 10 übertragen wird, in einen Rufnummernspeicher 22 ein, aus dem sie von

einer Vergleichsanordnung 23 ausgelesen wird. Die Vergleichsanordnung 23 vergleicht die jeweils ausgelesene Rufnummer mit den in einem Zielwahlnummernspeicher 24 enthaltenen Zielwahlnummern und steuert bei positivem Vergleichsergebnis einen Anzeigespeicher 25 mit einer Adresseninformation an, die aus der Adresse der das positive Vergleichsergebnis verursachenden Zielwahlnummer in dem Zielwahlnummernspeicher 24 abgeleitet ist. Dadurch kann mit einem Anzeigetreiber 26 eine von mehreren Leuchtdioden 27 angesteuert werden, die als Anzeigevorrichtung der Zielwahltaste 14 (Fig. 1) zugeordnet ist, deren Zielwahlnummer zu dem positiven Vergleichsergebnis geführt hat. Die Aktivierung dieser Leuchtdiode 27 kann später durch Betätigen der zugeordneten Zielwahltaste wieder gelöscht werden.

Die in Fig. 2 gezeigte Steuereinrichtung enthält zusätzliche Einheiten, mit denen eine allen Zielwahltasten 14 zugeordnete Leuchtdiode 30 aktiviert werden kann. Hierzu wird von dem Anzeigespeicher 25 auch ein ODER-Glied 28 angesteuert, dessen Ausgangssignal einem weiteren Anzeigetreiber 29 zugeführt wird, welcher die Leuchtdiode 30 aktiviert. Der mit der Leuchtdiode 30 versehenen Anzeigevorrichtung 16 (Fig. 1) ist die Taste 17 zugeordnet, welche mit einem Tastenkontakt 31 ausgerüstet ist. Wird dieser geschlossen, so wird ein Flip-Flop 32 gesetzt, welches an den Anzeigetreiber 26 ein Freigabesignal abgeben kann, so daß dieser in beschriebener Weise eine oder mehrere der Leuchtdioden 27 aktiviert.

Wird der Tastenkontakt 31 nochmals betätigt, so wird das Flip-Flop 32 rückgesetzt und das Freigabesignal für den Anzeigetreiber 26 beseitigt, so daß dieser wieder gesperrt wird und die zuvor aktivierten Leuchtdioden 27 gelöscht werden.

Es ist ferner ein Rufnummernspeicher 33 für empfangene Rufnummern vorgesehen, in den jede bei einem erfolglosen Anruf empfangene Rufnummer eingespeichert wird, sofern sie zu einem positiven Vergleichsergebnis geführt hat. Dies macht es möglich, bei einer weiter oben beschriebenen falschen Markierung einer Zielwahltaste bei Rückruf und Betätigen dieser Zielwahltaste dennoch den richtigen Teilnehmer zu erreichen.

In Fig. 3a ist eine Rufnummer dargestellt, die aus elf Stellen n besteht und in dem Rufnummernspeicher 22 (Fig. 2) enthalten ist. Fig. 3b bis d zeigen drei verschiedene Möglichkeiten der Speicherung dieser Rufnummer in dem Zielwahlnummernspeicher 24 (Fig. 2). Bei der in Fig. 3b gezeigten Möglichkeit stimmt die im Zielwahlnummernspeicher 24 enthaltene Zielwahlnummer mit der Rufnummer gemäß Fig. 3a hinsichtlich Stellenzahl m und der Stellenwerte überein. Fig. 3c zeigt dieselbe Zielwahlnummer mit zwölf Stellen m, die dadurch entstehen, daß der Zielwahlnummer eine weitere Null vorangestellt ist, mit der üblicherweise der Zugang aus einer Nebenstellenanlage zum öffentlichen Fernsprechnetz möglich ist. Fig. 3d zeigt den letzten Abschnitt der Zielwahlnummer nach Fig. 3b und c mit den letzten vier Stellen, und diesen ist eine k-stellige Codewahlnummer vorangestellt, so daß die insgesamt gespeicherte Zielwahlnummer sieben Stellen hat.

Für die drei Speichermöglichkeiten einer Zielwahlnummer, die in Fig. 3b bis d dargestellt sind, muß bei einem Vergleich mit der in Fig. 3a gezeigten Rufnummer, die in dem Endgerät 10 (Fig. 1) bei einem Anruf empfangen wird, in der Vergleichsanordnung 23 (Fig. 2) stets ein positives Vergleichsergebnis entstehen. Wie dies funktionell erreicht wird, ist in Fig. 4 dargestellt.

Fig. 4 zeigt das Flußdiagramm der Abläufe in der Vergleichsanordnung 23 (Fig. 2) für drei verschiedene Vergleichsvorgänge. Zunächst wird der linke Zweig dieses Flußdiagramms erläutert. Die dort dargestellte Routine wird durch die Steuerung 20 (Fig. 2) gestartet, und in einem ersten Schritt 40 wird festgestellt, ob eine Zielwahlnummer ZN in dem Zielwahlnummernspeicher 24 (Fig. 2) enthalten ist. Ist dies nicht der Fall, so wird diese Routine wieder verlassen (D). Ist mindestens eine Zielwahlnummer in dem Zielwahlnummernspeicher 24 enthalten, so wird in Schritt 41 das Laden der ersten Zielwahlnummer in die Vergleichsanordnung 23 veranlaßt. Danach wird mit Schritt 42 in der Vergleichsanordnung 23 geprüft, ob die Stellenzahl n der empfangenen Rufnummer, die von dem Rufnummernspeicher 22 in die Vergleichsanordnung 23 eingegeben wurde, mit der Stellenzahl m der geladenen Zielwahlnummer übereinstimmt. Ist dies nicht der Fall, so wird in eine mit Schritt 48 beginnende und noch zu beschreibende Routine abgezweigt. Wenn Übereinstimmung festgestellt wird, so wird in Schritt 43 ein Schleifenzähler initialisiert (i=1), der die einzelnen Stellen der miteinander zu vergleichenden Rufnummern abzählt. In einer Schleife, die aus den folgenden Schritten 44, 45 und 46 besteht, wird der stellenweise Vergleich der Zielwahlnummer mit der empfangenen Rufnummer vorgenommen. In Schritt 44 wird geprüft, ob die jeweiligen beiden gleichwertigen Stellen der beiden zu vergleichenden Rufnummern hinsichtlich ihres Wertes übereinstimmen. Wenn dies zutrifft, so wird in Schritt 45 geprüft, ob die letzte Stelle der beiden zu vergleichenden Rufnummern erreicht ist oder nicht. Ist dies nicht der Fall, so wird in Schritt 46 der Schleifenzähler um einen Schritt weitergeschaltet (i=i+1), so daß die nächste Stelle der beiden Rufnummern dem Vergleich unterzogen wird. Wenn nach mehrmaligem Durchlauf der beschriebenen Schleife die letzte Stelle der beiden zu vergleichenden Rufnummern erreicht ist (i=n), so wird zu Schritt 58 übergeleitet, in dem der Anzeigespeicher 25 (Fig. 2) angesteuert wird, um die der dem Vergleich unterzogenen Zielwahlnummer entsprechende Anzeigevorrichtung 27 (Fig. 2) zu adressieren und dann über den Anzeigetreiber 26 zu aktivieren. Mit diesem positiven Vergleichsergebnis ist die in Fig. 4 links gezeigte Routine beendet (L).

Wenn in Schritt 44 festgestellt wird, daß die beiden miteinander zu vergleichenden Rufnummern an einer

ihrer Stellen nicht übereinstimmen, so wird auf Schritt 47 übergegangen, in dem geprüft wird, ob eine weitere Zielwahlnummer in dem Zielwahlnummernspeicher 24 enthalten ist. Trifft dies zu, so wird auf Schritt 41 übergegangen (N). Ist keine weitere Zielwahlnummer in dem Zielwahlnummernspeicher 24 enthalten, so wird die Routine verlassen (D).

In Schritt 42 wurde festgestellt, ob die Stellenzahl der beiden zu vergleichenden Rufnummern übereinstimmt. Stimmt sie nicht überein, so wird auf Schritt 48 übergegangen, in dem festgestellt wird, ob die erste Stelle der in die Vergleichsanordnung 23 (Fig. 2) geladenen Zielwahlnummer einen Wert hat, der z.B. eine Amtszugangsziffer darstellt. Ist dies der Fall, so wird in Schritt 49 der Schleifenzähler initialisiert (i=1). Danach wird eine Schleife mit den Schritten 50, 51 und 52 gegebenenfalls mehrmals durchlaufen, die der bereits beschriebenen Schleife der Schritte 44, 45 und 46 entspricht. Dabei wird jedoch in Schritt 50 die Prüfung, ob eine Stelle der Zielwahlnummer mit einer Stelle der empfangenen Rufnummer übereinstimmt, um einen Schritt verschoben durchgeführt, so daß dadurch die vorangestellte Amtszugangsziffer unberücksichtigt bleibt. Bei positivem Vergleichsergebnis am Schluß der Schleifendurchläufe wird wiederum auf Schritt 58 übergegangen, wo der Anzeigespeicher 25 in beschriebener Weise angesteuert wird.

Wenn in Schritt 50 festgestellt wird, daß zwei miteinander verglichene Stellen der beiden Rufnummern nicht übereinstimmen, so wird auf Schritt 47 übergegangen (K), bei dem geprüft wird, ob eine weitere Zielwahlnummer in dem Zielwahlnummernspeicher 24 enthalten ist. Wie beschrieben, wird abhängig vom Ergebnis dieser Prüfung entweder zu Schritt 41 übergegangen (N) oder aber die Routine verlassen (D).

Wenn in Schritt 48 festgestellt wird, daß die erste Stelle der dem Vergleich zu unterziehenden Zielwahlnummer nicht die Amtsausscheidungsziffer ist, so wird auf Schritt 53 übergegangen, wo geprüft wird, ob die ersten k Stellen der in die Vergleichsanordnung 23 (Fig. 2) geladenen Zielwahlnummer eine Codewahlnummer bilden. Ist dies nicht der Fall, so wird die Routine verlassen (D). Handelt es sich um eine Codewahlnummer, so wird in Schritt 54 der Schleifenzähler initialisiert (i=0), d.h. in seine Nullstellung gebracht. Danach wird eine Schleife mit den Schritten 55, 56 und 57 durchlaufen, die der bereits beschriebenen Schleife der Schritte 44, 45 und 46 entspricht. Dabei wird in Schritt 55 mit der letzten Stelle der beiden zu vergleichenden Rufnummern begonnen, was durch den Index m-i bzw. n-i gekennzeichnet ist. Bei stellenweise positivem Vergleichsergebnis wird in Schritt 56 geprüft ob die letzte Stelle des dem Vergleich unterzogenen Endabschnitts der Zielwahlnummer erreicht ist, d.h. ob i=m-k-1 ist. Trifft dies nicht zu, so wird die Schleife erneut durchlaufen, indem in Schritt 57 der Schleifenzähler jeweils um einen Schritt weitergeschaltet wird. Wenn die letzte Stelle erreicht ist, so wird zu Schritt 58 übergegangen, bei dem in beschriebener Weise der Anzeigespeicher 25 angesteuert wird.

Wenn in Schritt 55 festgestellt wird, daß die beiden dem jeweiligen Vergleich unterzogenen Stellenwerte nicht übereinstimmen, so wird zu Schritt 47 übergegangen (K), bei dem in beschriebener Weise geprüft wird, ob eine weitere Zielwahlnummer in dem Zielwahlnummernspeicher 24 enthalten ist.

Patentansprüche

1. Telekommunikations-Endgerät mit Zielwahltasten und zugeordnetem Rufnummernspeicher für eine Telekommunikationsanlage, in der die Rufnummer eines rufenden Teilnehmers zu dem Endgerät des gerufenen Teilnehmers übertragen wird, **dadurch gekennzeichnet,**
daß eine Vergleichsanordnung (23) zum Vergleich der jeweils übertragenen Rufnummer mit den im Rufnummerspeicher (22) enthaltenen Rufnummern vorgesehen ist, die bei positivem Vergleichsergebnis eine Anzeigevorrichtung (15, 27) aktiviert, welche derjenigen Zielwahltaste (14) zugeordnet ist, deren Rufnummer zu dem positiven Vergleichsergebnis geführt hat und daß die Anzeigevorrichtung nach dem Eingehen eines erfolglosen Anrufes aktiviert bleibt.

2. Endgerät nach Anspruch 1, dadurch **gekennzeichnet,** daß eine gemeinsame Anzeigevorrichtung (16) allen Zielwahltasten (14) zugeordnet ist und bei einem positiven Vergleichsergebnis aktiviert wird und daß der gemeinsamen Anzeigevorrichtung (16) eine Taste (17) zugeordnet ist, durch deren Betätigung die gespeicherte Auswahl der Aktivierung der einer Zielwahltaste (14) zugeordneten Anzeigevorrichtung (15) freigegeben wird.

3. Endgerät nach einem der vorhergehenden Ansprüche, dadurch **gekennzeichnet,** daß der Vergleich hinsichtlich der Stellenzahl zweier Rufnummern und danach hinsichtlich der Stellenwerte einer vorbestimmten Anzahl einander entsprechender Stellen erfolgt, welche die Endabschnitte der zu vergleichenden Rufnummern bilden.

4. Endgerät nach Anspruch 3, **dadurch gekennzeichnet**, daß bei positivem Vergleichsergebnis die über-

tragene Rufnummer gespeichert wird und daß die Ausgabe dieser gespeicherten Rufnummer durch ein Betätigen der Zielwahltaste (14) bewirkt wird, der die aufgrund des positiven Vergleichsergebnisses aktivierte Anzeigevorrichtung (15; 27) zugeordnet ist.

Claims

1. Telecommunications terminal having speed dialling keys and an associated telephone number memory for a telecommunications system in which the telephone number of a calling subscriber is transmitted to the terminal of the called subscriber, characterized in that a comparison arrangement (23) is provided in order to compare the respectively transmitted telephone number with the telephone numbers contained in the telephone number memory (22), which arrangement (23) activates a display device (15, 27) if the comparison result is positive, which display device (15, 27) is assigned to that speed dialling key (14) whose telephone number has led to the positive comparison result, and in that the display device remains activated after the initiation of an unsuccessful call.

2. Terminal according to Claim 1, characterized in that a common display device (16) is assigned to all the speed dialling keys (14) and is activated in the event of a positive comparison result, and in that the common display device (16) is assigned a key (17) by means of whose operation the stored selection of the activation of the display device (15) which is assigned to a speed dialling key (14) is enabled.

3. Terminal according to one of the preceding claims, characterized in that the comparison is carried out with respect to the number of digits of two telephone numbers and then with respect to the digit values of a predetermined number of mutually corresponding digits which form the end sections of the telephone numbers to be compared.

4. Terminal according to Claim 3, characterized in that the transmitted telephone number is stored in the event of a positive comparison result, and in that this stored telephone number is output by operating the speed dialling key (14) which is assigned the display device (15; 27) which has been activated as a result of the positive comparison result.

Revendications

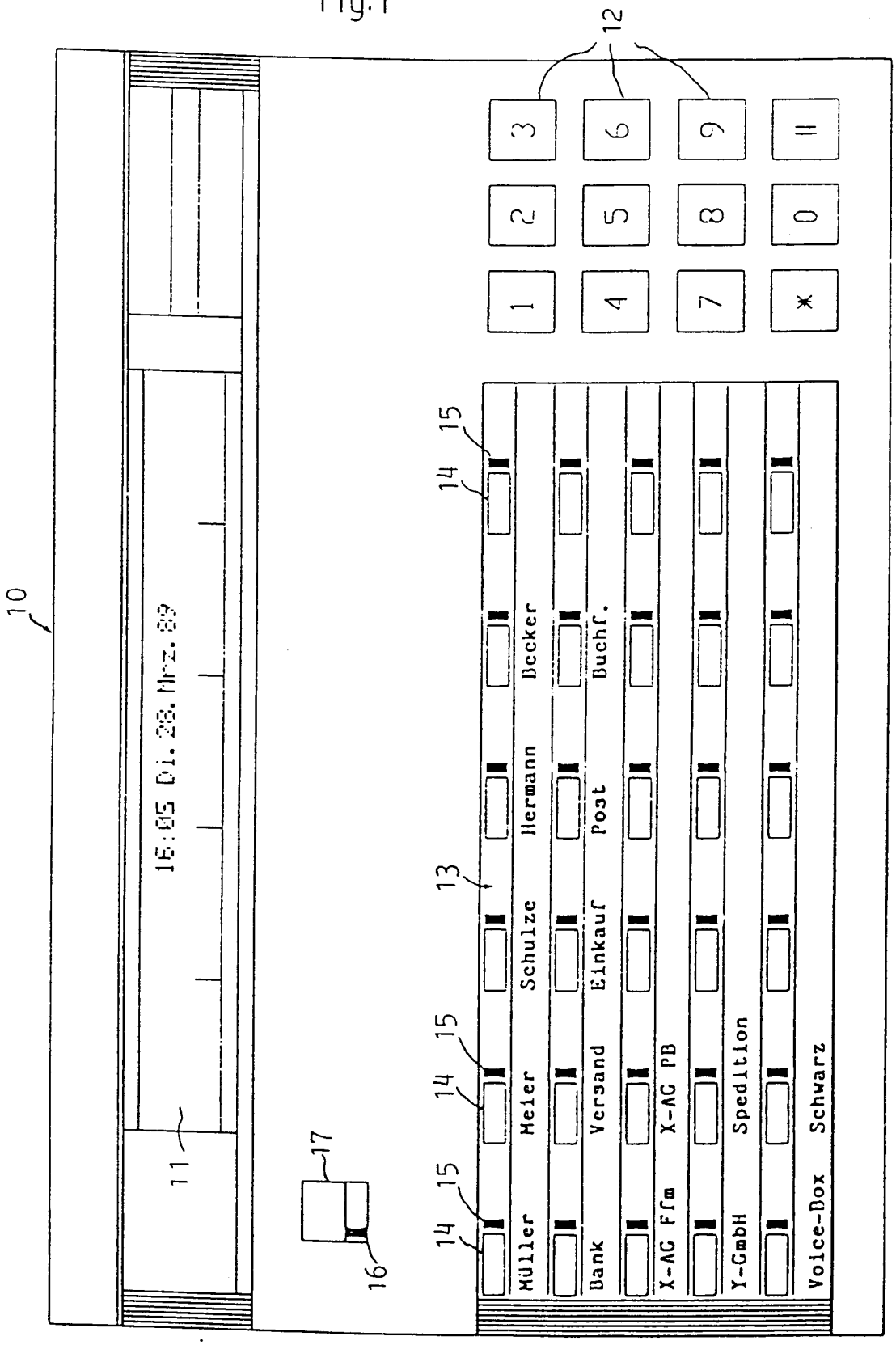
1. Terminal de télécommunication comportant des touches de sélection de destinations et des mémoires associées de numéros d'appel pour une installation de télécommunication, dans laquelle le numéro d'appel d'un abonné appelant est transmis au terminal de l'abonné appelé, caractérisé par le fait qu'il est prévu un dispositif comparateur (23) servant à comparer le numéro d'appel transmis aux numéros d'appel contenus dans la mémoire (22) de numéros d'appel, et, dans le cas d'un résultat positif de la comparaison, active un dispositif d'affichage (15,27), qui est associé à la touche de sélection de destination (14), dont le numéro d'appel a conduit au résultat positif de la comparaison et qu'après l'arrivée d'un appel sans succès, le dispositif d'affichage reste activé.

2. Terminal suivant la revendication 1, caractérisé par le fait qu'un dispositif d'affichage commun (16) est associé à toutes les touches de sélection de destination (14) et est activé dans le cas d'un résultat positif de la comparaison et qu'au dispositif d'affichage commun (16) est associée une touche (17), et dont l'actionnement libère la sélection mémorisée de l'activation du dispositif d'affichage (15) associé à la touche de sélection de destination (14).

3. Terminal suivant l'une des revendications précédentes, caractérisé par le fait que la comparaison porte sur le nombre des chiffres de deux numéros d'appel et ensuite sur les valeurs d'un nombre prédéterminé de chiffres qui se correspondent et qui forment les sections ou parties terminales des numéros d'appel devant être comparés.

4. Terminal suivant la revendication 3, caractérisé par le fait que dans le cas d'un résultat positif de la comparaison, le numéro d'appel transmis est mémorisé et que la délivrance de ce numéro d'appel mémorisé est réalisée au moyen d'un actionnement de la touche de sélection de destination (14), à laquelle est associé le dispositif d'affichage (15;27) qui est activé sur la base du résultat de comparaison positif.

Fig.1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16:05 Di. 28. Mrz. 89
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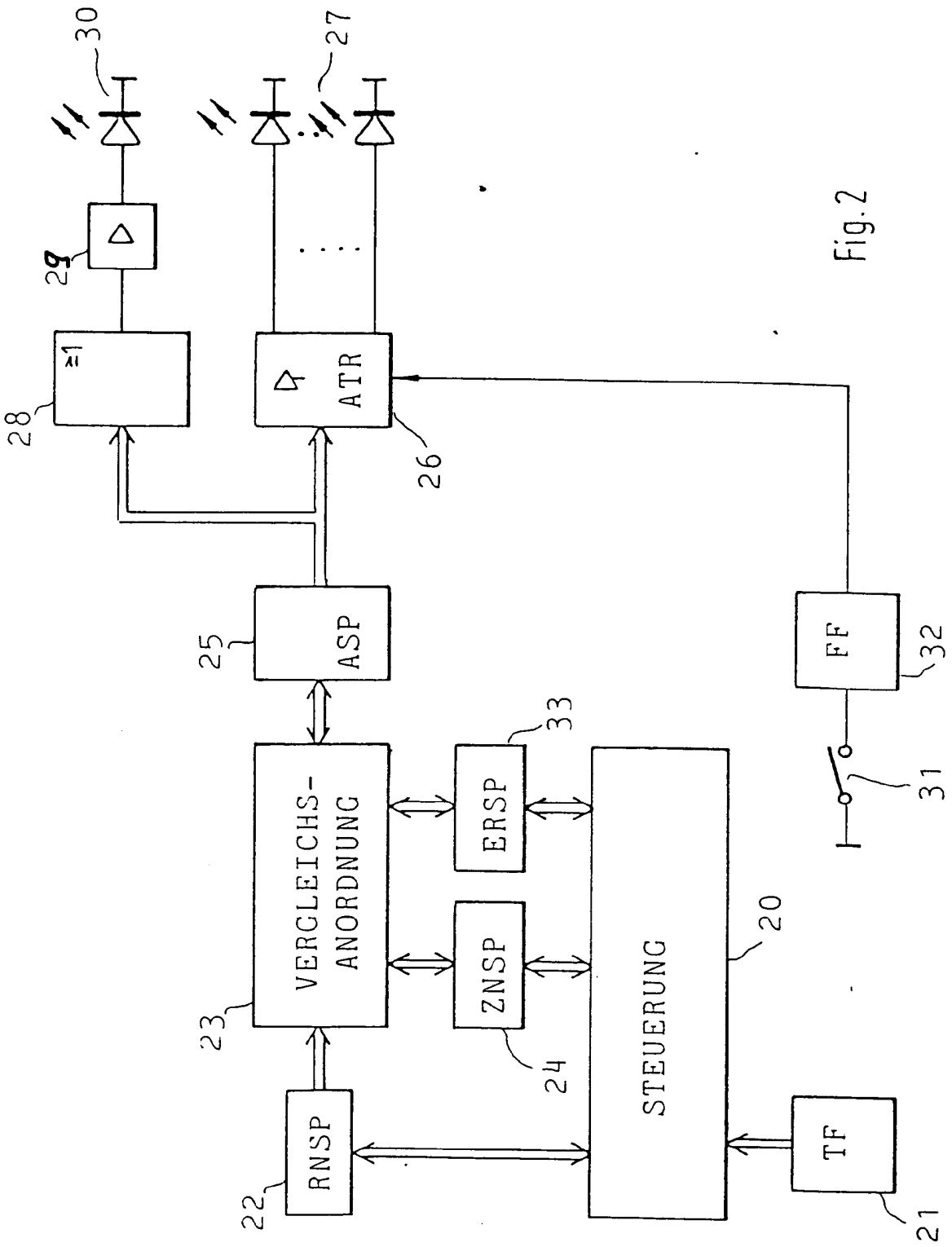
Müller
Meier
Schulze
Hermann
Becker
Bank
Versand
Einkauf
Post
Buchf.
X-AG Ffm
X-AG PB
Y-GmbH
Spedition
Volce-Box
Schwarz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27
29
28
≥1
ATR
26
25
ASP
FF
32
33
VERGLEICHS-
ANORDNUNG
ERSP
31
ZNSP
20
STEUERUNG
23
24
RNSP
TF
22
21

Fig.2

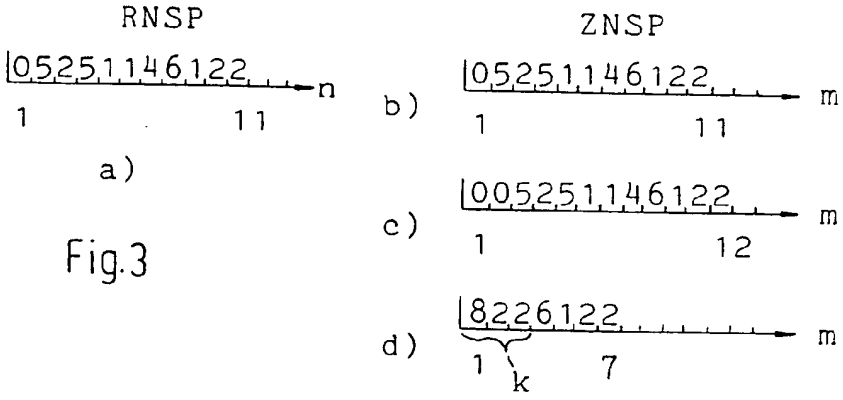
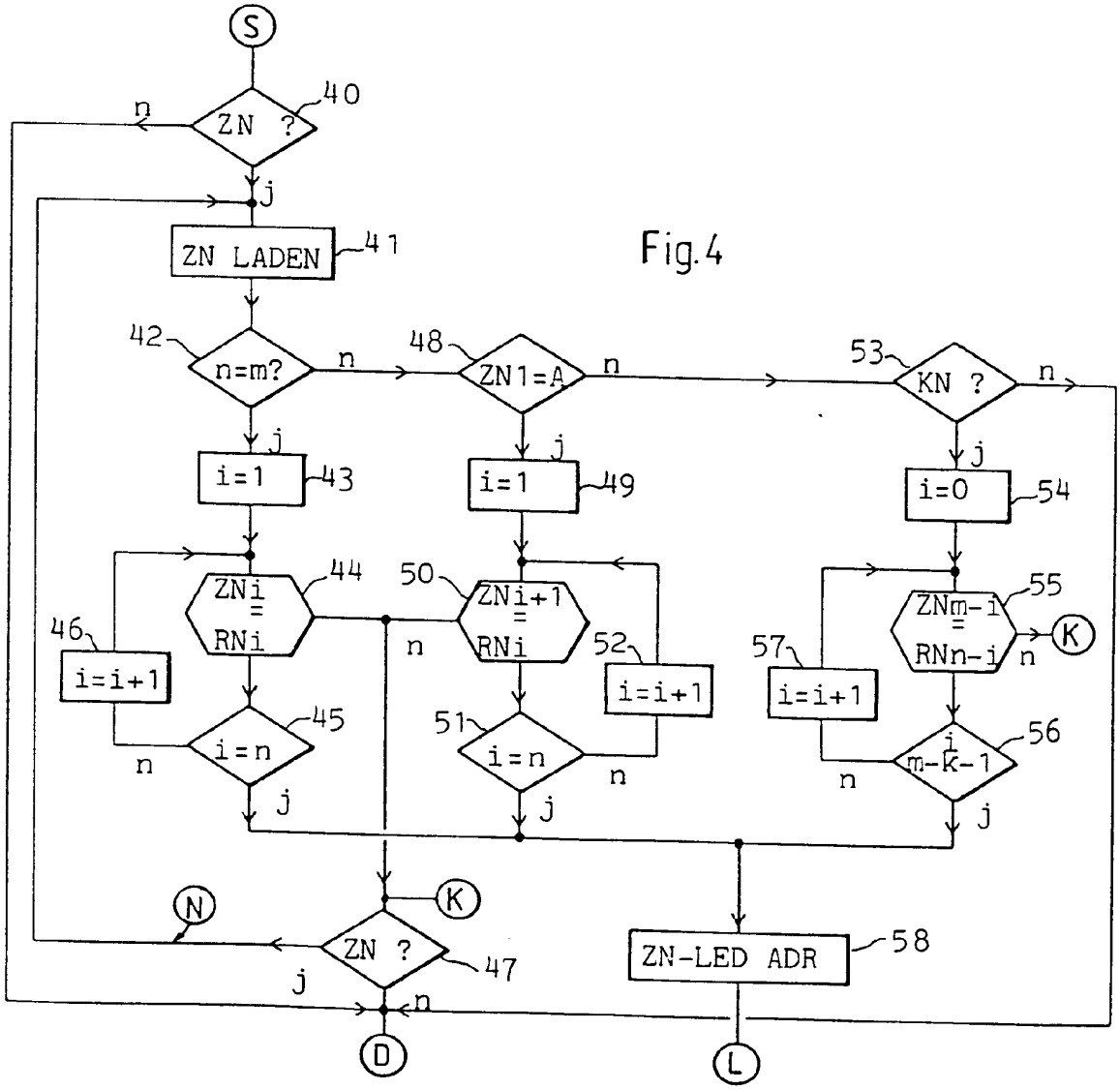

RNSP
0,5,2,5,1,1,4,6,1,2,2,
n
1
11
a)
b)
ZNSP
0,5,2,5,1,1,4,6,1,2,2,
m
1
11
c)
0,0,5,2,5,1,1,4,6,1,2,2,
m
1
12
d)
8,2,2,6,1,2,2,
m
1
k
7

Fig.3


S
ZN ?
40
n
j
ZN LADEN
41
n=m?
42
n
j
i=1
43
ZNi = RNi
44
i=i+1
46
n
i=n
45
j
ZN1=A
48
n
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i=1
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ZNi+1 = RNi
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i=i+1
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i=n
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i=i+1
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i / m-k-1
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j
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N
ZN ?
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j
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Fig.4

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(54) **A programmable dialler for a mobile telephone.**

(57) A programmable dialler for a cellular telephone instrument 1 allows telephone calls to be made only to specific, preprogrammed telephone numbers by operation of one or a sequence of keys (14) on the instrument. The telephone numbers are deep embedded in the telephone instrument and cannot be changed by the user. The preprogramming may either be carried out by the instrument manufacturer, or may be carried out by a licensed programmer with the aid of a dedicated programming interface (9).

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The invention relates to a programmable dialler for a mobile or cellular telephone.

A common problem with companies who provide their employees with mobile (cellular) telephones is to restrict usage of the telephone for business purposes. This is an added problem if the taxation system discriminates between the use of the phone for business and for domestic purposes. Although it is possible to track calls from the computer printout of charged calls, good staff working relations may be lost if they are disciplined for unauthorised calls. It is considered likely that many more companies would use mobile telecommunication networks and permit more employees to have mobile telephones if their use could be limited to company business and the costs more tightly controlled. Additionally, organisations providing a motorist service, such as a breakdown service, may offer limited-use telephones for their customers to call them and possibly a few other telephone numbers, such as the police, their home and their work numbers.

The present invention seeks to provide a telephone instrument and a system for enabling only authorised calls to be made from mobile telephone instruments according to a preprogrammable repertory of authorised calls. The repertory of authorised calls is preset only by a licensed person or by the manufacturer so that the mobile telephone may be used only to call one or more authorised numbers. The number of preprogrammed calls which can be made will depend upon the particular needs of each company and each individual employee or user. However it is unlikely that more than 20 preset authorised numbers/keys would be made available and some instruments will have only one preset authorised number/key.

According to the present invention there is provided a programmable dialler for a mobile telephone instrument including a key or keys arranged, on actuation, to initiate a telephone call to a respective predetermined authorised telephone number.

The dialler and/or the instrument can include circuitry to output a specific telephone number in response to the actuation of a specific key or sequence of keys. Alternatively the dialler can be adapted to output to a base station a specific code which is not a telephone number but which will be recognised by the base station and will cause the base station to make or connect a telephone call to a specific telephone number.

If required, a plurality or all of the keys may be preset to the same predetermined telephone number. However, one or more of the keys may be allocated for emergency help purposes to dial a number which is permanently manned to accept emergency calls and to respond by providing or accessing the necessary help. The keys cannot be used to initiate a call by the normal method of selecting a sequence of 0-9 keys corresponding to the digits of the required telephone number. Preferably the predetermined authorised telephone numbers associated with respective keys may only be set or changed by the manufacturer or a licensed person who holds a coding device which may be coupled to the telephone instrument for the purpose of setting and/or changing authorised telephone numbers.

One embodiment of the invention will now be described, by way of example, with reference to the accompanying drawing which shows schematically a programmable dialler according to the invention.

The drawing shows a mobile cellular telephone instrument 1 connected by way of a cellular radio base station 2 of a telephone network 3 to a limited number of authorised locations, for example customers 4 and 5 and to company manufacturing locations 6 and 7.

The instrument 1 shown in the drawing has a keypad 14 with only six keys designated by the letters A,B,C,D,E and F. Each of these keys has been preprogrammed to initiate a telephone call to a predetermined telephone number. It is not possible for the user of the instrument to change these preprogrammed numbers; neither is it possible for any calls to be made from the instrument to any telephone numbers other than those preprogrammed numbers. The preprogramming may require the user to press either a single key or a combination of the keys on the pad 14 in order to initiate a call to a particular authorised telephone number. Circuitry may be provided within the instrument 1 to output a specific preprogrammed phone number in response to the pressing of a specific key or combination of keys, or alternatively the airtime provider may provide circuitry which, in response to the receipt of a specific code from the instrument 1, outputs a call to the preprogrammed number.

At a licensed location 8 there is a programming device 9 which is used to deep embed specific codes into the instrument 1. The device 9 plugs into a socket 10 on the telephone instrument 1. The purpose of the programming device 9 is to preset or to change any one or more of the authorised numbers. The device 9 contains a key pad 11 which is used for programming the authorised numbers. An electronic security code may enable the keypad 11 so that it remains inoperable and electronically locked in a known manner until the correct combination of numbers is keyed in. The device 9 may also contain an alpha/numeric keyboard enabling words as well as numbers to be programmed into the telephone

instrument so that, in use, the telephone instrument provides a visual display 12 by means of an LCD indicating the person/location and telephone number associated with each programmed key when it is operated. The plug/socket 10 connection between the device 9 and the telephone instrument 1 may be replaced with an induction coupling, with an infra-red coupling or a laser coupling, or by remote radio transmission/instruction. A remote instruction of this type can be used to allow a call to be made to a specific number one time only.

It may be desirable for the programming device 9 to be held by the instrument suppliers so that the instruments are sold preprogrammed. This is the case particularly when a single telephone number may be the only one required. For example parents could provide their children with a telephone instrument through which they could only call home at any time.

Alternatively a distinctive key 13 could actuate a single telephone number which is an emergency help number manned 24 hours a day and staffed with people capable of assessing the problem and providing the necessary assistance.

The telephone instruments can be arranged as required to accept incoming calls. However, because cellular telephone networks are not set up to provide transfer charge calling in to a mobile telephone no unauthorised charges will be generated through incoming calls.

It will be appreciated that all calls made from the telephone instrument will be logged in the normal manner by the charging computer and only authorised calls connected to the telephone system operator. The preprogrammed telephone instrument may be portable or mounted in a vehicle.

In one specific application of the invention a mobile/transportable telephone instrument may be offered to customers as an additional service facility by a motorist breakdown organisation. The telephone instrument can have a limited set of push-button operated switches each of which is arranged to actuate a preprogrammed dialling-out circuit, programmed by the motorist organisation to provide one or more preselected numbers. The motorist organisation may provide one key always programmed to their own breakdown number and a second key always programmed to a police or general emergency number as basic facilities within the set-up costs of the additional service. Any additional preprogrammed keys may be separately costed and selected by the customer. If necessary the telephone could be arranged to provide only out-going calls.

It will be appreciated that there are other specific applications of the invention which would enable commercial organisations to provide an enhanced service for their customers.

Claims

1. A programmable dialler for a cellular mobile telephone instrument (1) including a key or keys (14) arranged, on actuation, to initiate a telephone call to a respective predetermined authorised telephone number.

2. A dialler as claimed in Claim 1, which includes circuitry to output a specific telephone number in response to the actuation of a specific key or sequence of keys (14).

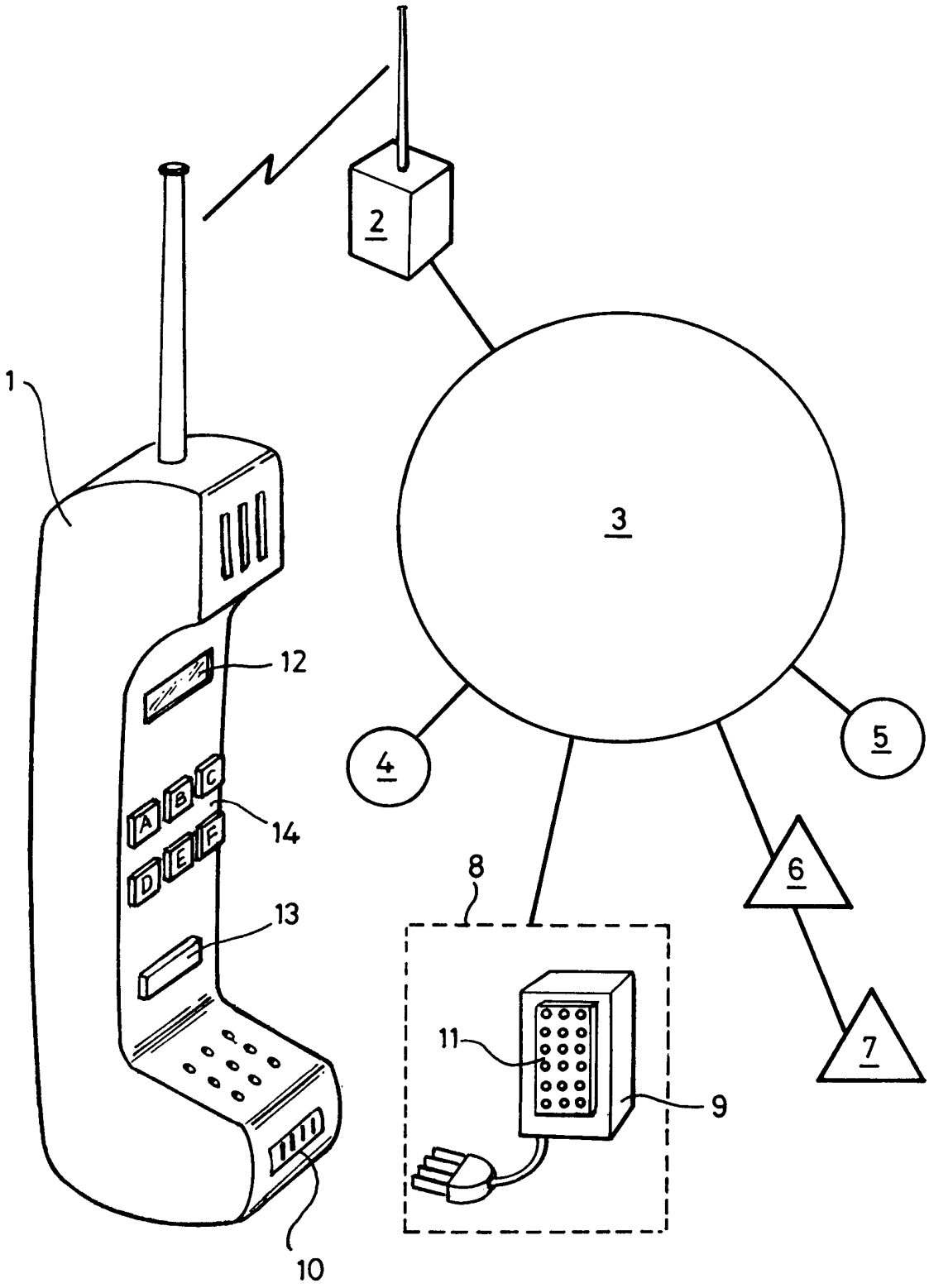
3. A dialler as claimed in Claim 1, adapted to output to a base station (2) a specific code which is not a telephone number but which will be recognised by the base station and will cause the base station to make or connect a telephone call to a specific telephone number.

4. A dialler as claimed in Claim 1, wherein one or more of the keys (14) is allocated for emergency help purposes to dial a predetermined authorised telephone number.

5. A dialler as claimed in Claim 1, wherein the keys (14) cannot be used to initiate a call by the normal method of selecting a sequence of 0-9 keys corresponding to the digits of the required telephone number.

6. A dialler as claimed in Claim 1, wherein the predetermined authorised telephone numbers associated with respective keys (14) may only be set or changed by the manufacturer or by a licensed person.

7. A dialler as claimed in Claim 6, wherein a coding device (9) has to be coupled to the telephone instrument (1) for the purpose of setting and/or changing authorised telephone numbers.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EUROPEAN SEARCH REPORT

Application Number
EP 92 11 2739

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	EP-A-0 287 061 (FUJITSU LIMITED) * column 1, line 1 - column 3, line 55; claim 1; figure 1 * * column 8, line 40 - column 10, line 10 *	1	H04M1/274
X	FR-A-2 604 319 (JEAN VALLETTE) * page 1, line 1 - page 4, line 24; claims 1,6,9; figure 2 * * page 5, line 23 - line 26 * * page 6, line 16 - line 21 * * page 7, line 1 - line 2 * * page 8, line 3 - line 8 *	1-4	
A	US-A-4 945 556 (NAMEKAWA) * column 1, line 9 - column 2, line 55; claims 1,3-5; figures 1-3 * * column 6, line 33 - line 49 *	1	
X	PATENT ABSTRACTS OF JAPAN vol. 8, no. 88 (E-240)21 April 1984 & JP-A-59 006 635 (NIPPON DENKI K.K.) 13 January 1984 * abstract *	1-4	
A	EP-A-0 378 775 (STORNO A/S) * column 1, line 8 - line 11 * * column 2, line 15 - line 26 *	2	TECHNICAL FIELDS SEARCHED (Int. Cl.5) H04M H04Q

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	02 APRIL 1993	DE HAAN A.J.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
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P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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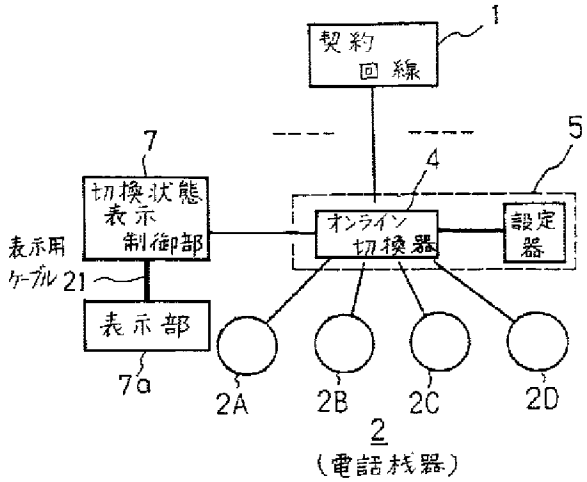
(54)【発明の名称】　着信切換表示装置

(57)【要約】

【目的】電話回線１と複数の電話機器２（２Ａ～２Ｄ）の間に設けられ、仮着信後の認識コードにより前記各電話機器を選択する（オンライン切換器４等からなる）着信切換装置の着信切換の状態を容易に把握できるようにする。

【構成】オンライン切換器４に切換状態表示制御部７，表示部７ａ等からなる着信切換表示装置を組合わせる。この表示制御部７は表示用ケーブル２１を介し表示部７ａに着信切換対象の電話機器２（従って着信人も表示可能）の別を色や音色で表示する。この色や音色の組合せは可変設定することができ、また表示部７は居住空間の壁面にパネルの形で設けたり、電話機器２の表面にＬＥＤやスピーカの形で設けることができる。



【特許請求の範囲】
【請求項１】電話回線と複数の電話機器との間に設けられ、仮着信の後引き続き送られてくる暗証コードにより前記各電話機器を選択する着信切換装置であって、前記各電話機器対応に一つまたは複数の暗証コードを設定，変更する設定・変更手段を持つ着信切換装置により選択された前記電話機器を夫々識別し得る表示を行う着信切換表示手段を備えたことを特徴とする着信切換表示装置。
【請求項２】請求項１に記載の着信切換表示装置において、
前記着信切換表示手段の各表示とこの表示によって識別される前記の各電話機器との対応は可変設定し得るものであることを特徴とする着信切換表示装置。
【請求項３】請求項１または請求項２に記載の着信切換表示装置において、
前記着信切換表示手段の各表示は発光色，発光間隔，もしくは音色、又はこれらの組合せによって識別区分されるものであることを特徴とする着信切換表示装置。
【請求項４】請求項３に記載の着信切換表示装置において、
前記発光色による表示を、居住空間の壁面に設けられ発光表示素子を表面に持つパネルによって行うようにしたことを特徴とする着信切換表示装置。
【請求項５】請求項３に記載の着信切換表示装置において、
前記発光色，音色による表示を前記の各電話機器上に設けた発光手段又は発音手段によって行うようにしたことを特徴とする着信切換表示装置。
【発明の詳細な説明】
【０００１】
【産業上の利用分野】この発明は、電話回線と複数の電話機器との間に設けられ、仮着信の後、引き続き送られて来る暗証コードにより各電話機器を選択する着信切換装置の切換状態を表示する装置に関する。なお、ここに云う電話機器は通常の電話機、留守録，転送等の各種機能をもつ電話機の他に、フアクシミリ，パーソナルコンピュータ，ＨＡ（Ｈｏｍｅ　Ａｕｔｏｍａｔｉｏｎ）機器等を含むものとする。また、暗証コードは確認コード，着信コードとも云い、発信する人，受信する人等が相互にわかるような情報を含むコードを指すものとする。
【０００２】なお以下各図において同一符号は同一もしくは相当部分を示す。
【０００３】
【従来の技術】従来、この種の着信切換装置としては１：１の直接、または１：多（ｎ）の同時多数、もしくは親：子の切り換えを行うものが一般的である。図３にこれらの例を示す。すなわち、同図（イ）は契約回線１に対して電話機器２が１：１に接続されている最も一般的な接続例、同図（ロ）は契約回線１に対して電話機器２が３台（２Ａ，２Ｂ，２Ｃ）、つまり１：多（ｎ）の並列接続の例であり、（イ），（ロ）いずれの場合も全ての電話機器で通話（通信）が可能である。これに対し、同図（ハ）では契約回線１に対してオフラインの切換器３が有り、選択ボタン等によって選ばれた電話機器２のうちの一台（２Ａ，２Ｂ，２Ｃのいずれか）と接続される親：子の接続の例である。また、同図（ニ）に示すものは契約回線１に対してオンライン切換器４が有り、発信者が切換器着信後に入力した（又は切換器に伝達された）暗証番号により直接、選択された電話機器２のうちの１台（２Ａ，２Ｂ，２Ｃのいずれか）と接続される親：子の選択接続の例である。（ハ）および（ニ）では切換器３又は４で選択された電話機器２のみ、通話（通信）が可能である。
【０００４】
【発明が解決しようとする課題】しかしながら、上記いずれの方式も選択される電話機器が固定されているため、着信先を変更しようとするとハード的な接続変更が必要となる。またこのようなオンライン切換器４を持つ着信切換装置では、この切換器４によって切換選択された対象の電話機器が２Ａ～２Ｃ等の何れであるかの着信切換状態を容易に把握できることが望ましい。
【０００５】そこで、この発明は着信先を変更する場合でもハード的な接続変更を要せず、変更作業を容易にした着信切換装置に組合せ、その着信切換状況を表示することで着信人の特定をより明確にすることができる着信切換表示装置を提供することを課題とする。
【０００６】
【課題を解決するための手段】前記の課題を解決するために、請求項１の着信切換表示装置は、電話回線（契約回線１など）と複数の電話機器（２（２Ａ～２Ｄ）など）との間に設けられ、仮着信の後引き続き送られてくる暗証コードにより（オンライン切換器４などを介し）前記各電話機器を選択する着信切換装置であって、前記各電話機器対応に１つまたは複数の暗証コードを設定，変更する設定・変更手段（設定器５など）を持つ着信切換装置により選択された前記電話機器を夫々識別し得る表示を行う着信切換表示手段（切換状態表示制御部７，表示部７ａなど）を備えたものとする。
【０００７】また請求項２の着信切換表示装置では、請求項１に記載の着信切換表示装置において、前記着信切換表示手段の各表示とこの表示によって識別される前記の各電話機器との対応は可変設定し得るものであるようにする。また請求項３の着信切換表示装置では、請求項１または請求項２に記載の着信切換表示装置において、前記着信切換表示手段の各表示は発光色，発光間隔，もしくは音色、又はこれらの組合せによって識別区分されるものであるようにする。
【０００８】また、請求項４の着信切換表示装置は、請

求項３に記載の着信切換表示装置において、前記発光色による表示を、居住空間の壁面（１５など）に設けられ発光表示素子を表面に持つパネル（１３など）によって行うようにする。また請求項５の着信切換表示装置は、請求項３に記載の着信切換表示装置において、前記発光色，音色等による表示を前記の各電話機器上に設けた発光手段（ＬＥＤ表示２２など）又は発音手段（表示用スピーカ２３など）によって行うようにする。

【０００９】

【作用】発信者が入力する電話番号後の認識コードにより、各種電話機器への接続を決定すべく、発信者（あらかじめ認識コードを着信者より通達されている）によって入力された認識コードと、あらかじめ登録しておいた認識コード系列とを照合し、その照合結果が良好ならば、該当する電話機器を回線へ接続するにあたり、電話機器と認識コードとの対応関係を上記設定・変更手段にて任意に変えられるようにし、ハード的な設定・変更作業をしなくても済むようにすると共に、該当する電話機器や着信人を表示することにより，その接続状況が居ながらにして把握できるようにする。

【００１０】

【実施例】図１は本発明の実施例を示すブロック図で、図３の（ニ）に対応するものである。図１においては図３（ニ）に対し、オンライン切換器４に設定器５と切換状態表示制御部７が接続されている。また表示制御部７には表示用ケーブル２１を介して表示部７ａが接続されている。なお４，５，７の手段は一体型であってもよい。

【００１１】ここで契約回線１よりオンライン器４へ着信（仮着信）すると、引き続き発信者から送られて来る認識コード、たとえば「０・１・２」と、オンライン切換器４が予め記憶している登録番号群とを照合し、その着信に対して接続する電話機器を決定する。「０・１・２」の場合は、例えば２Ａの電話機器とする。なお、この接続（対応関係）についてもあらかじめ登録しておくものとする。この様にして、契約回線１が電話機器２に接続される。通話信号は切換器４から選択された電話機器２以外に流れない。また、「０・１・２」なる認識コードで電話機器２Ｂ，２Ｃまたは２Ｄを選択するには、設定器５により対応関係を設定すればよい。

【００１２】このようにすることにより、ハード的な接続変更を行うことなしに、着信電話機器２の変更ができる。また切換状態表示制御部７は表示用ケーブル２１を介し表示部７ａに電話機器２（２Ａ～２Ｄ）の何れが着信したかを表示することができる。なお以下切換状態表示制御部７，表示部７ａ等を一括して着信切換表示装置という。

【００１３】次に、このように構成した場合の応用例について説明する。

イ）或る組立工場の場合

この場合の例として、次の表１の如くすることが考えられる。

【００１４】

【表１】

発信者	認識コード	機器		
		DAY1	DAY2	夜　間
顧　客	２・３・５	２Ａ	２Ａ	２Ｃ
代理店	２・２・２	２Ａ	２Ｂ	２Ｃ
部品店	１・３・８	２Ａ	２Ｂ	２Ｄ
認識コードなし、照合なし		２Ｂ	２Ｂ	２Ｄ

すなわち、普通の日（ＤＡＹ１）はそのほとんどが電話機器２Ａに直接接続され、工場主任が電話機器２Ａで応対する。認識コードがないとき、または対応する認識コードがないときだけ部下が応対（電話機器２Ｂにて）し、必要ならば電話機器２Ａに回す。これに対し、新製品の打合せで忙しい日（ＤＡＹ２）は、直接工場主任が受ける電話機器を制限して顧客からの通話（通信）のみとし、他は部下が応対する様に変更する。また、夜間は転送機能付電話機２Ｃにより、顧客と代理店からの電話は工場主任の自宅へ転送され、留守番機能付電話機２Ｄにはその他の通話が接続される。なお、認識コードをここでは３桁としているが、これに限らないことは云う迄もない。

【００１５】また着信切換表示装置７，７ａ等は認識コードの違いを例えば異なる発光色，発光間隔，音色等によって表示する。

ロ）或る家庭の場合

この場合の例として、次の表２のようにすることが考えられる。

【００１６】

【表２】

認　識　コード	表示部	電　話　機　器
着信者の部屋コード	発光色	本人在室←→本人不在ｏｒ食事
父の部屋　１１	白	２Ａ　←→　２Ｆ　ｏｒ　２Ｅ
母の部屋　１２	赤	２Ｂ　←→　２Ｆ　ｏｒ　２Ｅ
兄の部屋　１３	青	２Ｃ　←→　２Ｆ　ｏｒ　２Ｅ
弟の部屋　１４	緑	２Ｄ　←→　２Ｆ　ｏｒ　２Ｅ
リビング　１５	ｵﾚﾝｼﾞ	２Ｅ　　２Ｅ
認識コードなし	黄	２Ｅ　　２Ｅ
照合なし	黄	２Ｅ　　２Ｅ

すなわち、家庭でのプライバシー保護の観点から、認識コードにより直接本人の部屋の電話機器を鳴らすこととする。また、別の部屋に居る時は、その旨の設定変更で対処可能となる。

【００１７】また、表示部７ａの示す発光色、発光間隔，音色により、着信人が他の部屋にいても、その固有の着信人で有ることを居ながらにして把握できるようにする。ここで本人不在の時は他の家族が居ても、留守番機能付電話機２Ｆに接続することもできる。以上では、１つの電話機器に１つの暗証コードまたは認識コードを与えるようにしたが、複数の認識コードを与えることもできる。この場合、着信に対して予めクラス分けを行なうとともに、クラスと電話機器との対応関係を設定しておき、認識コードが入力されたら、これがどのクラスに対応するかを照合することが必要になる他は、１つの認識コードを与える場合と全く同様である。

【００１８】またこの場合、表示部７ａはクラスごとに異なる表示を示すようにする。１つの電話機器に複数の認識コードを与える場合の応用例としては、次のようなものがある。

ａ）或る組立工場の場合

この場合の例として、表３の如くすることが考えられる。これは、認識コードが２つ与えられている点を除けば表１と全く同様なので、説明は省略する。なお、①～（Ｎ）はクラスの番号を示す。

【００１９】

【表３】

発　信　者	認識コード番号	クラス	機　　器			表示部
			DAY1	DAY2	夜間	発光色
顧　　客	２・３・５ ６・４・８	①	２Ａ	２Ａ	２Ｃ	赤
代　理　店	２・２・２ ８・３・５	②	２Ａ	２Ｂ	２Ｃ	ｵﾚﾝｼﾞ
部　品　店	１・３・６ ２・５・６	③	２Ａ	２Ｂ	２Ｄ	黄
暗証番号なし	・・・・・	（Ｎ）	２Ｂ	２Ｂ	２Ｄ	緑

ｂ）或る問屋の場合

この場合の例として、表４の如くすることが考えられる。

【００２０】

【表４】

発　信　者	認識コード番号	クラス	機　　器			表示部
			DAY1	DAY2	夜間	発光色
商　店　主	2・1 3・6	①	2A	2C	2D	赤
スーパー	5・8	②	2A	2C	2D	ｵﾚﾝｼﾞ
問屋仲間	2・3 2・4 2・5	③	2B	2A	2D	黄
貿　易　商	1・8 1・9	④	2B	2A	2E	緑
認識コードなし	・・・・・	(N)	2C	2C	2D	白

すなわち、或る日（ＤＡＹ１）は、問屋主は主に商店，スーパーと売り物に対する連絡を優先し、電話機器２Ａで直接通話（通信）する。そして、次の日（ＤＡＹ２）には、問屋主は主に問屋仲間，貿易商と買い物に対する連絡を優先し、電話機器２Ａで通話（通信）する。その他は、担当者が電話機器２Ｂ又は２Ｃで対応する。夜間は、貿易商からの通話（通信）のみ転送機能付電話機２Ｅに接続され、他は留守番機能付電話機２Ｄに接続される。

【００２１】ｃ）小規模会社の場合

この場合の例として、表５の如くすることが考えられる。

【００２２】

【表５】

認識コード番号 着信者の個人コード （職場コード）	職場変更前 職場名（ｸﾗｽ）， 機器	表示部 発光色	職場変更後 職場名（ｸﾗｽ）， 機器	表示部 発光色
２１８　（山本）	①　，２Ａ	赤	①　，２Ｂ	赤
３７８　（太田）	①　，２Ａ	赤	②　，２Ａ	ｵﾚﾝｼﾞ
１９６　（山下）	①　，２Ａ	赤	①　，２Ｂ	赤
７８５　（村上）	①　，２Ａ	赤	③　，２Ｃ	黄
３７３　（　・　）	②　，２Ｂ	ｵﾚﾝｼﾞ	①　，２Ｂ	赤
５９２　〃	②　，２Ｂ	〃	③　，２Ｃ	黄
６６６　〃	②　，２Ｂ	〃	②　，２Ａ	ｵﾚﾝｼﾞ
１８８　〃	②　，２Ｂ	ｵﾚﾝｼﾞ	②　，２Ａ	ｵﾚﾝｼﾞ
２９８　〃	③　，２Ｃ	黄	③　，２Ｃ	黄
３１１　〃	③　，２Ｃ	〃	③　，２Ｃ	黄
２５９　（　・　）	③　，２Ｃ	黄	②　，２Ａ	ｵﾚﾝｼﾞ
（９１）（営業）	(1)，２Ａ	赤	(1)，２Ｂ	赤
（９２）（経理）	(2)，２Ｂ	ｵﾚﾝｼﾞ	(2)，２Ａ	ｵﾚﾝｼﾞ
（９３）（人事）	(3)，２Ｃ	黄	(3)，２Ｃ	黄

【００２３】即ち着信後の個人番号により、自動的にその個人の所属する職場の電話機器に接続され、職場の組織変更が有ると通常はそのレイアウトや構成人員が変更になるが、電話機器のハードはそのままにして、職場のクラス対応と個人番号のグループ分け（クラス分け）を変更することにより、新たな場所に以前のままのコードで接続することができる。

【００２４】また表示部７ａによる着信表示はそのクラス（部署）ごとに異なる発光を示すことができる。

ｄ）家庭の場合

この場合の例として、表６のようにすることが考えられる。なおこれはクラス分け（①～⑤）をしたことを除けば表２と全く同様なので、説明は省略する。

【００２５】

【表６】

認識コード番号 着信者の部屋コード	ｸﾗｽ	表示部 発光色	機　器 本人　←→　本人　ｏｒ　食事 在室　　不在　　(ﾘﾋﾞﾝｸﾞ)
父の部屋　１１	①	白	２Ａ　←→　２Ｆ　ｏｒ　２Ｅ
母の部屋　１２	②	赤	２Ｂ　←→　２Ｆ　ｏｒ　２Ｅ

兄の部屋　１３	③	青	２Ｃ ⟷ ２Ｆ　ｏｒ　２Ｅ
弟の部屋　１４	④	緑	２Ｄ ⟷ ２Ｆ　ｏｒ　２Ｅ
リビング　１５	⑤	ｵﾚﾝｼﾞ	２Ｅ　　２Ｅ
認識コードなし	⑤	黄	２Ｅ　　２Ｅ

以上の様な応用例を考えると、設定器５による設定よりも図２の如きパソコン（パーソナルコンピュータ）６による設定管理の方が良い場合もある。また、簡単な変更は電話機器２からオンライン切換器４へ連絡変更出来る様なシステムとすることも考えられる。

【００２６】また着信表示切換装置もプログラム可能で各種のパターンで表示させることが可能である。図４は着信切換表示装置の居住空間への表示方法の実施例を示す。同図において１６は壁１１，１２等の壁面１５に沿ってフロア面に平行に、目の位置より低い位置に設けられた壁面ケーブルダクトで、このダクト１６内には、この例では同図（ロ）の拡大図に示すように、電話線１７，電力線１８，ホームバス１９，ＡＶ・ＣＡＴＶ等の線２０，切換状態表示制御部７とその表示部７ａとを結ぶ表示用ケーブル２１等が収容されている。

【００２７】１３はこのダクト１６の壁面１５側の面上に設けられたパネルで夫々各種の発光色の発光表示素子からなり、切換状態表示制御部７によって表示制御される表示部７ａを構成している。そして切換状態表示制御部７から表示用ケーブル２１を介しパネル１３の各色のパネルのうち該当色パネルが発光するようにするものである。なお該当色パネルは壁面上に複数枚配置してもよい。

【００２８】なおこのような発光パネル１３の代わりにスピーカーパネル等で、音色による表示を行うことも可能である。また前述のようにダクト１６は他のケーブルと共同利用可能であるため、パネル１３としては表示発光パネルの他に，電源コンセントパネル，電話パネル，ＣＡＴＶパネル等を配置することも可能である。

【００２９】図５は着信切換表示装置の表示部７ａを電話機器２に組込んだ実施例を示す。同図に示すように、この電話機器２の上面には通常電話（多機能電話）の押しボタン２４等以外に、表示部７ａを構成する各発光色のＬＥＤ２２が配置されている。また音色により着信状況を示す時は同じく表示部７ａを構成する表示用スピーカ２３から音色を作り出す。

【００３０】

【発明の効果】この発明によれば、契約回線からの着信を自動的に目的の電話機器に接続する着信切換装置に着信切換表示装置を組合せるようにしたので、レイアウト変更等への対応，着信の選択，転送，留守録，それらのスケジュール管理など、応用範囲の広いフレキシブルなシステムを構成すると共に、受信機や電話機器の操作なしに、その着信を判断できる。

【図面の簡単な説明】

【図１】この発明の実施例を示すブロック図

【図２】この発明の他の実施例を示すブロック図

【図３】電話機器の電話回線に対する一般的な接続態様を説明するための説明図

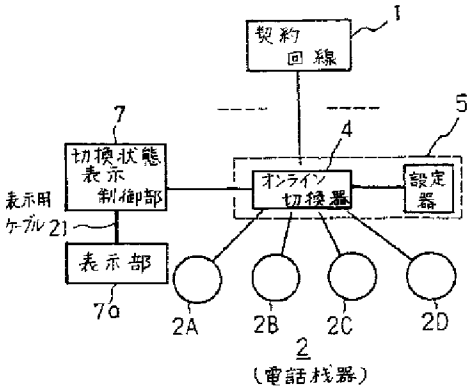
【図４】本発明の着信切換表示装置を居住空間に応用した実施例を示す図

【図５】本発明の着信切換表示装置を個別電話機器に応用した実施例を示す図

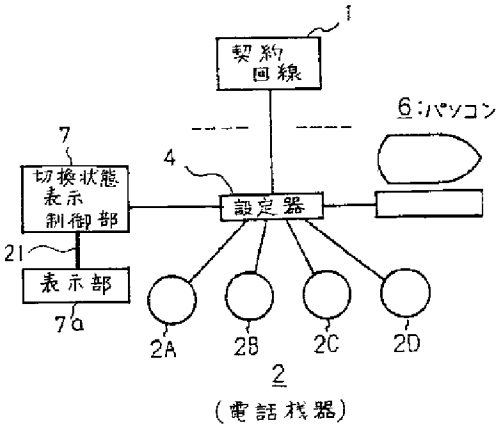
【符号の説明】

１　契約回線
２（２Ａ～２Ｆ）　電話機器
３　オフライン切換器
４　オンライン切換器
５　設定器
６　パソコン（パーソナルコンピュータ）
７　切換状態表示制御部
７ａ　表示部
１１　壁
１２　壁
１３　パネル
１４　フロア面
１５　壁面
１６　壁面ケーブルダクト
１７　電話線
１８　電力線
１９　ホームバス
２０　ＡＶ、ＣＡＴＶ線
２１　表示ケーブル
２２　ＬＥＤ表示
２３　表示用スピーカ
２４　押しボタン

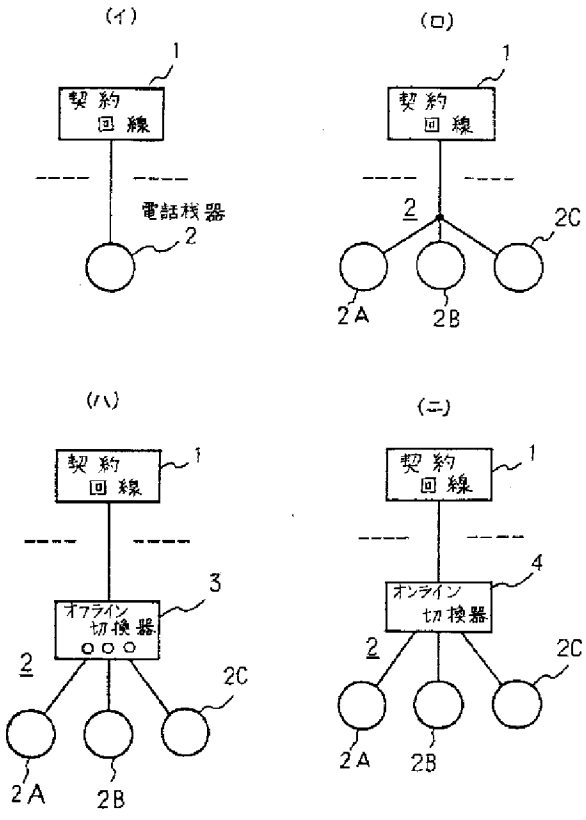
【図１】


契約回線
1
7
5
4
切換状態表示制御部
オンライン切換器
設定器
表示用ケーブル21
表示部
7a
2A
2B
2C
2D
2
(電話機器)

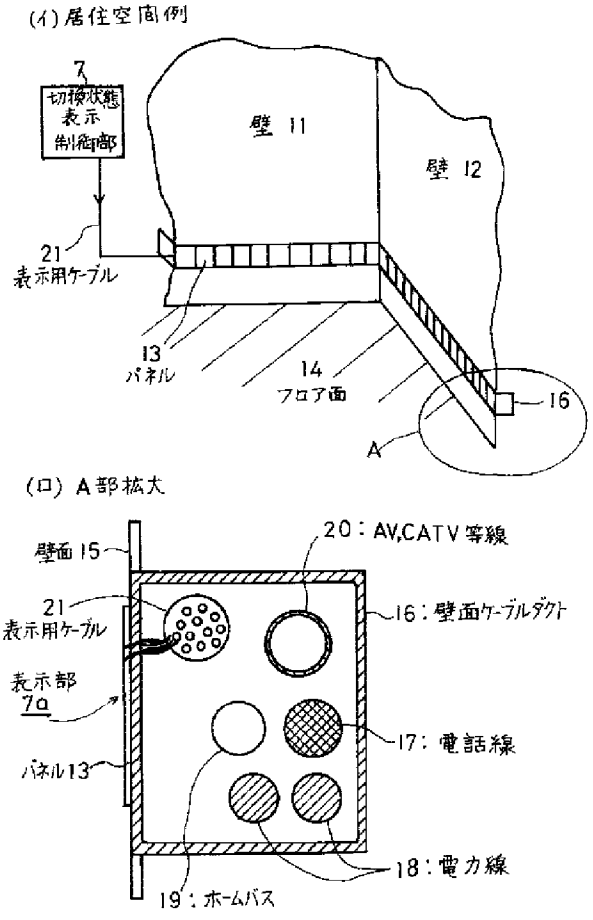
【図２】


契約回線
1
6:パソコン
7
4
切換状態表示制御部
設定器
21
表示部
7a
2A
2B
2C
2D
2
(電話機器)

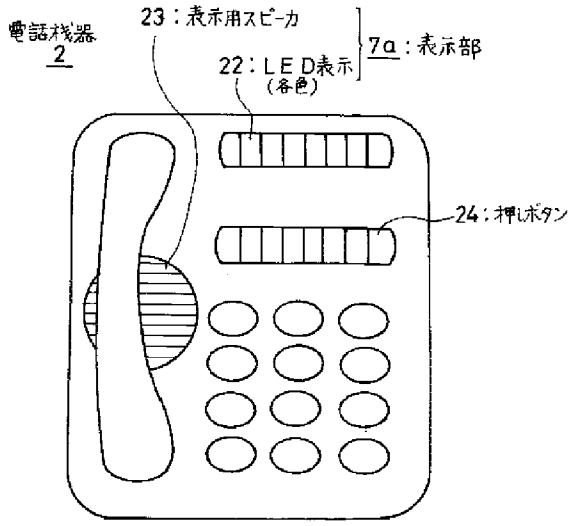
【図３】


(イ)
契約回線
1
電話機器
2
(ロ)
契約回線
1
2
2C
2A
2B
(ハ)
契約回線
1
3
オフライン切換器
2
2C
2A
2B
(ニ)
契約回線
1
4
オンライン切換器
2
2C
2A
2B

【図４】


(イ)居住空間例
7
切換状態表示制御部
壁 11
壁 12
21
表示用ケーブル
13
パネル
14
フロア面
16
A
(ロ) A部拡大
壁面 15
20:AV,CATV等線
21
表示用ケーブル
16:壁面ケーブルダクト
表示部
7a
パネル13
17:電話線
18:電力線
19:ホームバス

【図５】



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(54) Telefongerät

(57) Es wird ein Telefongerät vorgeschlagen, bei welchem anstelle der üblichen Linienwahleinheit lediglich eine Linienwahlauslöseeinheit (9) vorgesehen ist, bei deren manueller Auslösung (11) entweder eine darin fix programmierte Linienwahlnummer aktiviert wird oder ein Telefongerät-identifizierender Code an eine Zentrale übermittelt wird, welch letztere dann die Verbindung mit einer vorabgesprochenen Empfängerstation vermittelt.

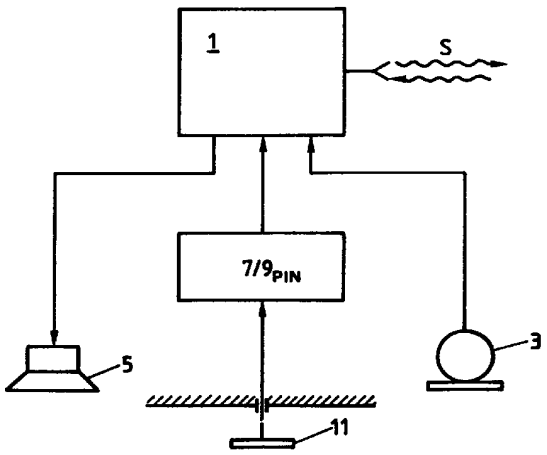

FIG. 2

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Beschreibung

Die vorliegende Erfindung betrifft ein Telefongerät der im Oberbegriff von Anspruch 1 spezifizierten Art.

Bekannte Telefongeräte dieser Art weisen eine Linienwahleinheit auf, welche ermöglicht, durch Tastaturbedienung sämtliche zur Verfügung stehenden Linien anzuwählen.

Bei gewissen Organisationsformen, bei denen beispielsweise periphere Geräteinheiten ausschliesslich mit einer Zentrale kommunizieren sollten, sind die herkömmlichen Telefongeräte der genannten Art ungeeignet, einerseits, weil sie die freie Linienwahl ermöglichen und damit ein in der angesprochenen Organisationsstruktur nicht erwünschtes Telefonieren. Dies zu kontrollieren, bedeutet einen wesentlichen Aufwand. Anderseits sind sie gerade wegen der freien Linienwahl für solche Zwecke wesentlich zu aufwendig, und in manchen Fällen ist die Linienwahl selber zu kompliziert.

Ein typisches Beispiel einer Organisationsstruktur der obgenannten Art, bei welcher Bedienungseinfachheit an Peripheriegerät von ausschlaggebender Bedeutung ist, ist diejenige, bei der eine Mutter jederzeit mit ihren Kindern kommunizieren können möchte, sei dies in der Schule oder auf dem Spielplatz. Eine andere derartige Organisationsstruktur kann bei Aussendienststellen bezüglich einer Zentrale bestehen etc.

Es ist Aufgabe der vorliegenden Erfindung, ein Telefongerät obgenannter Art vorzuschlagen, welches höchst kostengünstig herstellbar, den erwähnten Bedürfnissen Rechnung trägt. Dies wird beim Telefongerät genannter Art durch dessen Ausbildung nach dem Kennzeichen von Anspruch 1 erreicht.

Die Erfindung wird anschliessend beispielsweise anhand von Figuren erläutert. Es zeigen:

Fig. 1 Ein Signalfluss/Funktionsblockdiagramm eines erfindungsgemässen Telefongerätes;

Fig. 2 ein Signalfluss/Funktionsblockdiagramm eines erfindungsgemässen Telefongerätes in bevorzugter Ausführungsform;

Fig. 3 beispielsweise die Realisation des erfindungsgemässen Telefongerätes als Clip für Kinder;

Fig. 4 schematisch eine mit dem erfindungsgemässen Telefongerät gemäss Fig. 1 realisierte, einfache Kommunikationsstruktur;

Fig. 5 schematisch eine mit dem erfindungsgemässen Telefongerät gemäss Fig. 2 realisierte, einfache Kommunikationsstruktur.

Das erfindungsgemässe Telefongerät ist ein sogenanntes Funktelefongerät und arbeitet auf dem jeweiligen örtlichen Funktelefonnetz, wie über das Natel-Netz, das GMS-Netz, das USA- oder das japanische Netz. Es weist hierzu, wie bei solchen Telefongeräten üblich, eine Funkeinheit 1 auf, mit Sende- und Empfangseinheiten für das Funksignal S. Im weiteren ist ein akustisch/elektrischer Wandler, vorzugsweise in Form eines Mikrophons 3, vorgesehen, sowie ein elektrisch/akustischer Wandler, vorzugsweise in Form eines Lautsprechers 5. Wie schematisch in Fig. 1 dargestellt, sind, entsprechend, Mikrophon 3 mit einem Eingang, Lautsprecher 5 mit einem Ausgang der Funkeinheit 1 verbunden. Im weiteren ist mit der Funkeinheit 1 eine Speichereinheit 7 wirkverbunden, welche die Geräteidentifikationsnummer beinhaltet und so das Gerät für ankommende Anrufe identifiziert.

Telefongeräte dieser Art weisen im weiteren eine Linienwahl-Identifikationseinheit auf, bei welcher, üblicherweise tastenfeldgesteuert, die erwünschte Linie für ausgehende Gespräche gewählt werden kann. Erfindungsgemäss besteht beim erfindungsgemässen Gerät die Linienwahl-Identifikationseinheit aus einem Nur-Lese-Speicher 9, einem ROM, womit vorzugsweise nur eine einzige Linienwahlnummer identifiziert wird.

Die Speichereinheit 7 kann dabei direkt die vom Netzbetreiber dem Gerät zugeordnete Anwahlnummer als Geräte-Identifikationsnummer beinhalten.

Auch der Nur-Lesespeicher 9 kann direkt die Linienwahlnummer der gewollten Empfangsstation beinhalten.

Bei einer bevorzugten Ausführungsform gemäss Fig. 2 beinhaltet aber die Speichereinheit 7 einen fix dem Gerät zugeordneten Code, einen PIN-Code.

Auch der Nur-Lesespeicher 9 beinhaltet vorzugsweise einen fix zugeordneten Code, vorzugsweise denselben PIN-Code. Damit kann, wie in Fig. 2 dargestellt, nurmehr eine Speichereinheit 7/9 für den angesprochenen PIN-Code vorgesehen sein.

Bei der ersten Ausführungsform gemäss Fig. 1 kann der Linienwahlspeicher 9 bevorzugterweise, wie durch eine Servicestelle, modular entfernt werden und zur Änderung der Linienwahlnummer einer vorgegebenen Empfangsstation ein anderes Speichermodul eingesetzt werden. Durch Tastaturbetätigung, vorzugsweise und wie schematisch in Fig. 1 dargestellt, lediglich einer einzigen Taste 11 am Gerät wird die abgespeicherte Nummer AAA ... der Empfangsstation von Speichereinheit 9 zur Linienanwahl an die Funkeinheit 1 übermittelt. Die Speichereinheit 7 wird mit der das Geräte identifizierenden Anrufnummer geladen.

Bei der bevorzugten Ausführungsform gemäss Fig. 2 wird hingegen die Kommunikation wie folgt aufgebaut:

Eine Zentrale registriert, dem Geräte-Code (PIN-Code) zugeordnet, die Linienwahlnummer des dem erfindungsgemässen Gerät zugeordneten Empfängers.

Auf Tastendruck am erfindungsgemässen Gerät hin wird von letzterem ein dem PIN-Code entsprechendes Signal an die Zentrale gesendet. Daraus identifiziert die Zentrale das anrufende Gerät und erstellt über ganz normale Linienwahl die Verbindung zwischen dem identifizierten Gerät und dem mit diesem Gerät mitidentifizierten, beabsichtigten einen Empfängeranschluss.

Umgekehrt erstellt die Zentrale bei eingehenden Anrufen für das erfindungsgemässe Gerät insbesondere ab der vorerwähnten ausgewählten Empfängerstation die Verbindung zum Gerät mittels eines dem PIN-Code entsprechenden Aufrufsignals.

Bei der letzterwähnten, bevorzugten Realisationsform gemäss Fig. 2 kann der geräteidentifizierende Code fix dem Gerät zugeordnet sein, die erwünschte Empfangsstation wird bei der Zentrale für den spezifischen Gerätecode bestellt.

Ein solch höchst einfaches Telefongerät, welches nur zulässt, eine einzige Linie anzuwählen, eignet sich ausserordentlich gut zur Kinderbedienung oder für die Bedienung weiterer Personenkreise, bei denen eine fehlersichere, rasche Bedienung wie zu Alarmzwecken gefordert ist. Solche Personenkreise können in Wachtorganisationen, bei sportlichen Tätigkeiten wie beim Bergsteigen, Segeln, Tauchen unschätzbare Dienste leisten.

In Fig. 3 ist beispielsweise für Kinder das erfindungsgemässe Gerät in einen Steckclip integriert und die einzige zu bedienende Tase 11a an markanter, einprägsamer Stelle vorgesehen. Ein solches Gerät eignet sich auch ausgezeichnet als Werbeträger.

In Fig. 4 ist schematisch die Kommunikationsstruktur dargestellt, bei welcher zwei erfindungsgemässe Peripheriegeräte $P_{1,2}$ beispielsweise der beiden Kinder, je durch die gewollte Gegenstation G, beispielsweise bei der Mutter, mit der jeweiligen am erfindungsgemässen Gerät abgespeicherten Geräteidentifikationsnummer entsprechend 7 von Fig. 1 aufgerufen werden können. Darnach kann die Gegenstation G, wie beispielsweise die Mutter, mit dem jeweiligen Kind sprechen. Ergibt sich eine Situation, in welcher beispielsweise das Kind mit der Mutter kommunizieren will, so braucht es lediglich die Linienwahltaste 11 bzw. 11a zu betätigen, worauf gemäss Fig. 1 die fix einprogrammierte Nummer der Gegenstation, in Fig. 4 wiederum mit AAA bezeichnet, angewählt wird und darnach die Kommunikationsverbindung mit der Gegenstation Z erstellt ist. Wie ersichtlich, wird bei der Gegenstation G ein ganz normales Telefongerät eingesetzt mit Freiwahlmöglichkeit, während an der Peripherie erfindungsgemässe Geräte eingesetzt werden, welche lediglich die Nummer der Gegenstation G anwählen können, und dies durch eine einfache Auslöse-Bedienung.

Gemäss Fig. 5 wird am bevorzugten Gerät gemäss Fig. 2 die Kommunation erst über ein dem PIN-Code entsprechendes Signal mit einer Zentrale Z erstellt, die, dem PIN-Code entsprechend, die Verbindung mit der abgesprochenen Gegenstation G erstellt. Umgekehrt vermittelt die Zentrale Z bei Identifikation des PIN-Codes von einer anrufenden Gegenstation G die Kommunikation mit dem mittels PIN-Code identifizierten erfindungsgemässen Gerät. Wie gestrichelt dargestellt, werden den einzelnen PIN-Codes an der Zentrale Z die abgesprochenen Gegenstation G zugeordnet. Selbstverständlich können dabei für an ein erfindungsgemässes Gerät gerichtete Gespräche mehrere Gegenstationen G berechtigt sein, während bevorzugterweise von einem erfindungsgemässen Gerät bzw. PIN-Code nur eine Gegenstation als Empfängerstation identifiziert wird.

Mit dem erfindungsgemässen Gerät wird somit ein Kommunikationsgerät für den mobilen Gebrauch vorgeschlagen, das ortsunabhängig eingesetzt werden kann wie ein Funktelefon, jedoch keine integrierte Wähleinheit umfasst.

Das vorgeschlagene Kommunikationsgerät ist äusserst klein und kann in verschiedenen Dekors in Verbindung mit oder ohne Werbeträger und in unterschiedlichen Formen für den professionellen Bereich wie auch für den Privatbereich, z.B. als Kommuniktionsverbindung zwischen Mutter und Kind eingesetzt werden. Die Verbindungen werden ab dem erfindungsgemässen Gerät ohne Kenntnis von Zahlen oder Buchstaben erstellt, nur mittels Knopfdruck. Das erfindungsgemässe Gerät verhindert weiter, dass unerwünschte Telefonverbindungen aufgebaut werden können. Bei Verlust oder beim Abhandenkommen des Gerätes ist es für eine Drittperson wertlos und kann nicht für deren eigene Zwecke verwendet werden.

Wie beschrieben wurde, stellt das erfindungsgemässe Gerät ohne Wähleinheit mittels Knopfdruck eine analoge oder digitale Verbindung über ein bestehendes oder zu erstellendes Funknetz her, direkt oder über eine Zentrale vermittelt. Insbesondere ermöglicht das Einbeziehen von bereits weltweit existierenden Funknetzen mit den vorhandenen Infrastrukturen eine kostengünstige Betriebsstruktur.

Wie erwähnt wurde, eignet sich ein solch höchst einfaches Telefongerät, welches in bevorzugter Ausführungsform nur zulässt, eine einzige Linie anzuwählen, ausserordentlich gut für Kinderbedienung, die Bedienung durch behinderte, alte oder kranke Personen oder für die Bedienung durch weitere Personenkreise, bei denen dies fehlersicher, rasch, wie zur Alarmauslösung, möglich sein soll.

Patentansprüche

1. Telefongerät umfassend

   - eine auf die Frequenz des örtlichen Funktelefondienstes abgestimmte Sende/Empfängereinheit (1)

   damit wirkverbunden:

   - ein elektro/akustischer Wandler (5)
   - ein akustisch/elektrischer Wandler (3)
   - eine Linienwahl-Auslöseeinheit (9)
   - eine Gerätenummer-Speichereinheit (7)

   dadurch gekennzeichnet, dass die Linienwahl-

Auslöseeinheit (9) durch eine Nur-Lese-Speichereinheit gebildet ist, deren Auslesen für die Initialisierung der Linienwahl durch eine manuelle betätigbare Tastenanordnung (11) ausgelöst wird.

2. Telefongerät nach Anspruch 1, dadurch gekennzeichnet, dass die Nur-Lese-Speichereinheit (9) zur Abspeicherung einer Linienwahlnummer (AAA...) ausgelegt ist oder zur Abspeicherung eines die Linienwahlnummer identifizierenden Codes.

3. Telefongerät nach einem der Ansprüche 1 oder 2, dadurch gekennzeichnet, dass die Nur-Lese-Speichereinheit eine modular auswechselbare oder nicht auswechselbare, fest dem Gerät zugeordnete Speichereinheit umfasst.

4. Telefongerät nach einem der Ansprüche 1 bis 3, dadurch gekennzeichnet, dass es als Clip ausgebildet ist.

5. Verwendung des Telefongerätes nach einem der Ansprüche 1 bis 4 als Werbeträger.

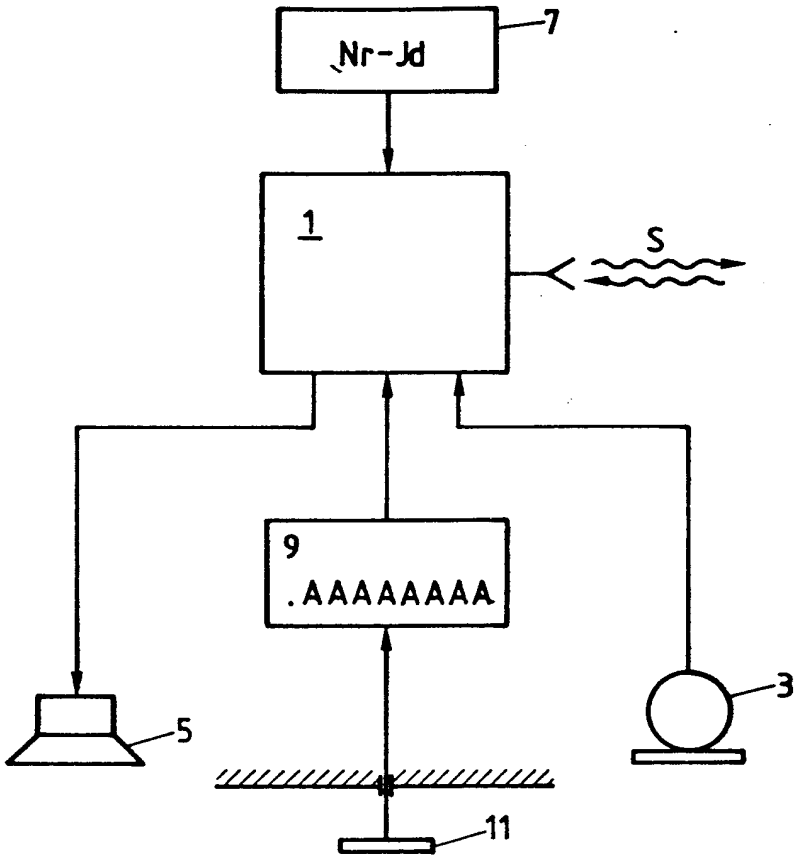

FIG.1

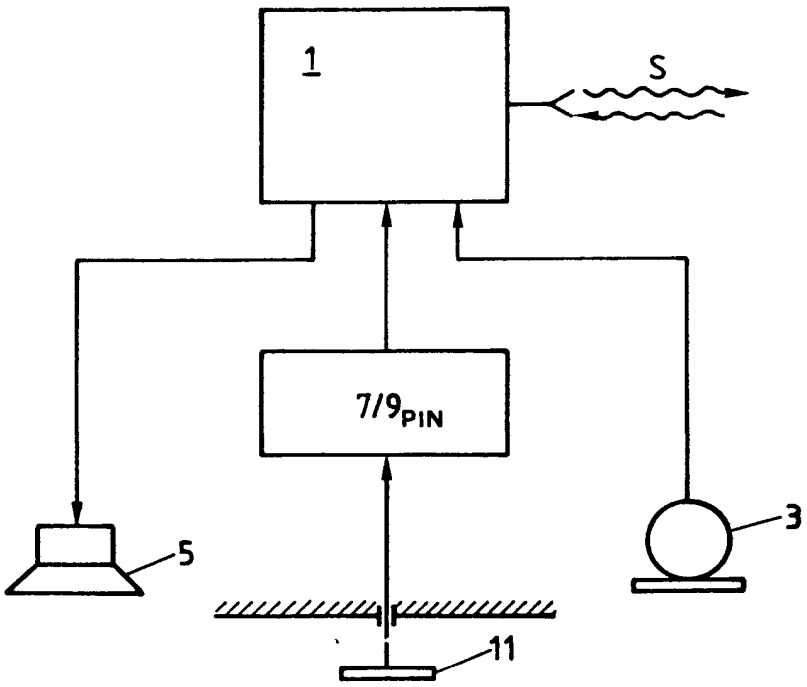

FIG.2

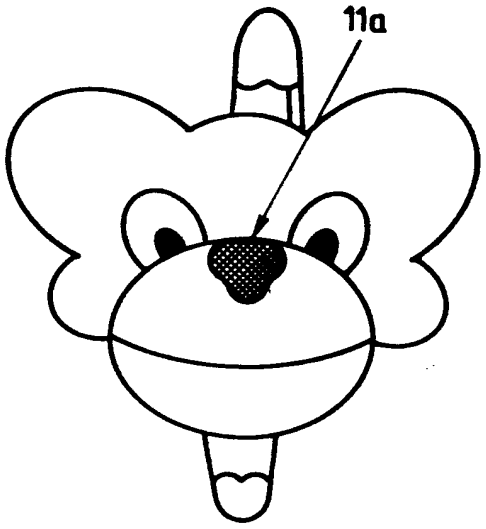

FIG. 3

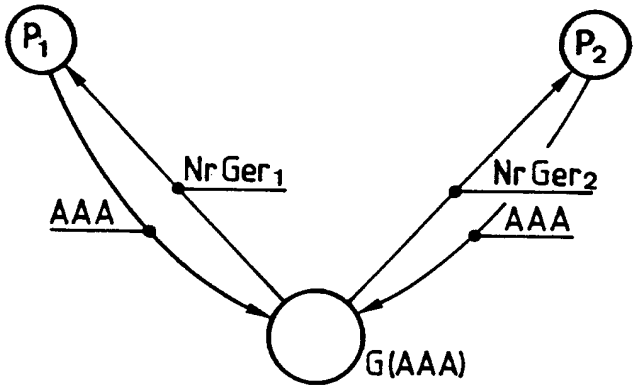

FIG.4

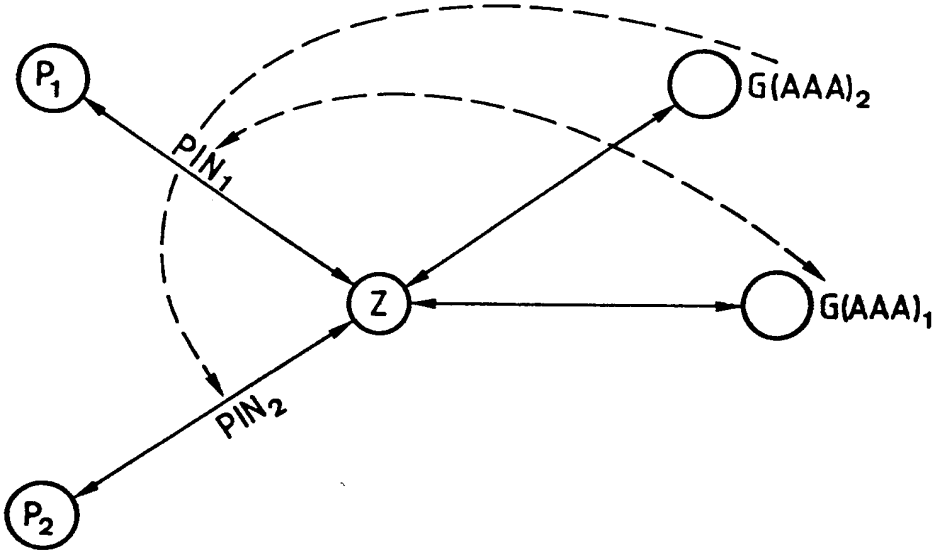

FIG.5

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(54) Telefongerät

(57) Es wird ein Telefongerät vorgeschlagen, bei welchem anstelle der üblichen Linienwahleinheit lediglich eine Linienwahlauslöseeinheit (9) vorgesehen ist, bei deren manueller Auslösung (11) entweder eine darin fix programmierte Linienwahlnummer aktiviert wird oder ein Telefongerät-identifizierender Code an eine Zentrale übermittelt wird, welch letztere dann die Verbindung mit einer vorabgesprochenen Empfängerstation vermittelt.

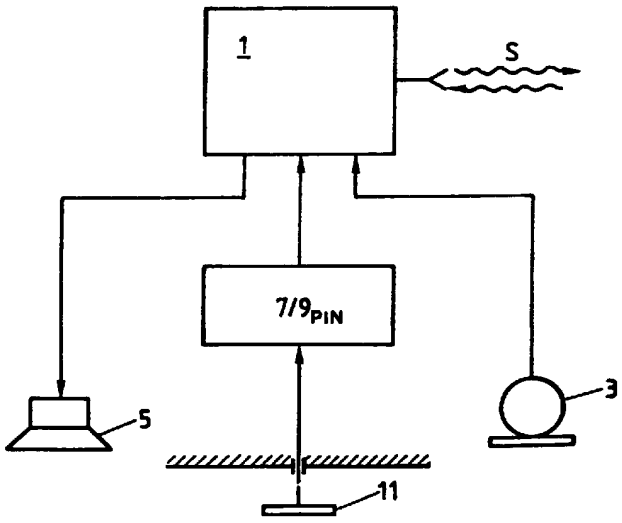

FIG. 2

EP 0 772 336 A3

Europäisches Patentamt

EUROPÄISCHER RECHERCHENBERICHT

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X	EP 0 287 061 A (FUJITSU LTD) 19.Oktober 1988 * Spalte 1, Zeile 48 - Spalte 3, Zeile 55 * * Spalte 5, Zeile 38 - Zeile 53 * ---	1-3	H04M1/272 H04M11/04
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KATEGORIE DER GENANNTEN DOKUMENTE

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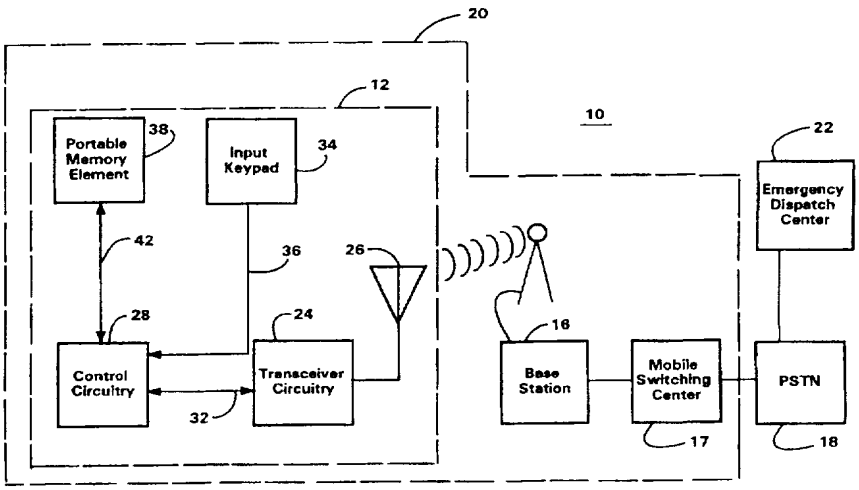

(57) Abstract

A device (12) and associated method (72) for automatically transmitting information by way of a radio transceiver (24) responsive to a request for emergency assistance initiated by way of the radio transceiver (24). Informational data pertaining to a subscriber is stored in a portable memory element (38), such as a SIM memory card of a cellular, communication system (20). When entry of a request, such as entry of the digits "9-1-1" for emergency assistance is requested, the informational data is automatically accessed and transmitted to provide emergency personnel (22) with the informational data.

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RADIO TRANSCEIVER MEMORY DEVICE AND METHOD FOR FACILITATING EMERGENCY COMMUNICATIONS

TECHNICAL FIELD OF THE INVENTION

The present invention relates generally to the communication of data by way of a radio transceiver to an emergency dispatch center. More particularly, the present invention relates to a device and method for automatically transmitting information to the emergency dispatch center when a call is placed at the radio transceiver to the emergency dispatch center.

BACKGROUND OF THE INVENTION

In recent years, telephonic communication effectuated by way of a cellular, or other wireless, communication network has become increasingly popular. In such a system, communication signals are transmitted between two communication stations by way of transmission of radio frequency signals upon radio frequency channels. Because a wireline connection is not required to effectuate the telephonic communication with a remotely-positioned communication station, telephonic communication by way of the cellular, or other wireless, communication network is possible in situations in which a wireline connection connecting the communication stations is impractical.

Initiation of telephonic communication links in a cellular communication system is typically accomplished in a manner analogous to the initiation of telephonic communication links in a conventional, wireline, telephonic system. A calling party initiates communication with a called party by entering an

identification number, i.e., the telephone number, of the party to whom telephonic communication is to be effectuated. Network switching apparatus interprets the telephone number and provides the necessary connections to effectuate the telephonic communication. Calls can be placed by way of, e.g., a radio telephone forming the remotely-positioned, communication station to any other station coupled to the telephonic network by entering and transmitting the telephone number of the called party.

In some sections of the United States, telephonic networks provide emergency "911" service. Other countries provide analogous service. In areas of the country which provide for "911" service, a caller requiring emergency assistance dials, or enters, the digits 9-1-1. When the telephonic network detects entry of such digits, connection of the calling party to an emergency dispatch center is immediately effectuated. In other countries, other sequences of digits are entered by a caller, similarly to be connected to an emergency dispatch center.

An emergency call can be placed by a subscriber of a radio telephone in a manner similar to the manner by which a caller located at a wireline station can place an emergency call. However, in a conventional telephonic network in which "911" emergency service is provided, dispatch personnel of the emergency dispatch center are provided with the position from which the request for emergency assistance is initiated. The personnel of the emergency dispatch center utilize such positional information to facilitate the dispatch of emergency personnel to the scene of the emergency.

While the positional information can be readily provided to the dispatch personnel of the emergency dispatch center when the calling party is located at a conventional, wireline, calling station, if the calling party utilizes a radio telephone, or other wireless communication device, to request the emergency assistance, the position of the calling party cannot be automatically provided to the dispatch personnel of the emergency dispatch center. In the event that the calling party is unable otherwise to provide the dispatch personnel with the location at which the emergency assistance is required, the appropriate emergency assistance might not be able to be provided.

If the calling party is not able to provide the dispatch personnel with the required positional information, the calling party might well be the one necessitating the emergency assistance. The nature of the emergency as well as information relating to the calling party might well similarly not be able to be communicated by the calling party to the dispatch personnel.

In order to permit communication by way of, or with, a radio telephone operable in a conventional, cellular, or other wireless, communication network, certain control information must be communicated between the radio telephone and the fixed, network portion of the cellular communication network. For instance, an electronic serial number which uniquely identifies a radio telephone in the cellular communication system must be transmitted by the radio telephone to the fixed, cellular network portion during call set-up procedures. The electronic serial number is stored in a memory element of the radio

telephone. Other data is similarly stored at the radio telephone.

Several existing and planned wireless networks provide for the utilization of radio telephones which make use of removable memory elements, sometimes referred to as "SIM" cards. The removable memory elements contain data including the aforementioned electronic serial number. The Group Special Mobile (GSM) cellular, communication system provides for the utilization of radio telephones having removable memory elements. In the GSM system, the removable memory elements are disposed on or in a card member. The radio telephone includes an assemblage, referred to as a card reader assembly, for receiving a card member. A card reader assembly typically comprises structure forming a receiving platform and electrodes positioned in proximity to the receiving platform. The electrodes are also coupled to other structure of the radio telephone and permit an electrical connection to be formed with corresponding electrodes of a removable memory element.

The electrodes of the removable memory element are disposed upon a face surface of the card member. When the card member is suitably positioned at the receiving platform of the card reader assembly, the electrodes of the card member and the card reader assembly become aligned with one another and electrical connections are formed therebetween. Once suitably aligned and connected, the information stored within the memory element may be transferred to the circuitry of the radio telephone.

Radio telephones which permit the utilization of removable memory elements are advantageous, at least in

part, for the reason that a user of more than one radio telephone may alternately operate the two or more radio telephones while requiring only a single billing account. Calls placed by either of the radio telephones, when the memory element is suitably positioned therein, are, e.g., billed to a single billing account.

At least two configurations of SIM card member dimensions have been standardized. A first standardized configuration of card member, sometimes referred to as a C-Net-sized card member (as specified in the International Standard, ISO 7816, Parts 1-3) defines the dimensions of the card member to correspond generally to the physical dimensions of a conventional credit card. A second, standardized configuration of card member, sometimes referred to as a D-Net-sized card member (as also specified in the International Standard, ISO 7816, Parts 1-3) defines dimensions of the card member to be of smaller dimensions than those of the C-Net-sized card member.

Either of such card members, as well as other memory elements, include user-defined memory element portions. User-defined memory element portions permit the storage of user-defined data therein. Such user-defined data is in addition to the electronic serial number and other data also stored in the memory element. Such user-defined memory element portions have been utilized, for example, to store speed-dialing, calling lists. Speed-dialing calling lists facilitate the entry of calling codes by a subscriber of services in the communication system.

Other data in such user-defined memory element portions can also be stored. Certain data stored in the

memory element would additionally facilitate the dispatch of emergency assistance in the event that a request for emergency assistance is made by a subscriber to a cellular, or other wireless, communication system.

It is in light of this background information related to removable memory elements utilized in wireless communication systems that the significant improvements of the present invention have evolved.

SUMMARY OF THE INVENTION

The present invention advantageously provides a device and method for a radio telephone operable in a cellular, or other wireless, communication system which facilitates the communication of informational data to an emergency dispatch center. The informational data is communicated to the emergency dispatch center automatically when a call to the emergency dispatch center is placed at the radio telephone. Because the information is transmitted automatically, information is provided to the emergency dispatch center even if the subscriber of the radio telephone is unable otherwise to communicate with personnel of the emergency dispatch center.

By storing the informational data at the removable memory element which also contains identification data, the informational data is portablized in the same manner in which the identification data is portablized upon the memory element. Any radio telephone in which the memory element is inserted for conventional reasons, i.e., for billing and operational reasons, is automatically provided with the informational data associated with the subscriber. In the event that an emergency call is placed

with the radio telephone, such informational data is automatically provided to an emergency dispatch center.

When the radio telephone is positioned together with a global positioning receiver, positional data generated by the global positioning receiver is also provided automatically to the dispatch personnel of the emergency dispatch center. The position, which might otherwise be indeterminate, of the subscriber placing the emergency call can thereby be provided to the emergency dispatch center to facilitate the dispatch of appropriate emergency personnel.

In accordance with one aspect of the present invention, therefore, a device, and an associated method, provides informational data associated with a subscriber of a radio communication system to an emergency dispatch center. The radio communication system is permitting of telephonic communication by way of a mobile subscriber unit and is operable at least to communicate telephonically with the emergency dispatch center responsive to entry of a request entered by way of a mobile subscriber unit transducer. A memory element is removably connectable to the mobile subscriber unit. Informational data associated with the subscriber is stored in the memory element. An emergency request controller detects times in which the request to communicate telephonically with the emergency dispatch center is entered by way of the mobile unit. Responsive thereto, the informational data stored at the memory element is transmitted to the emergency dispatch center.

A more complete appreciation of the present invention and the scope thereof can be obtained from the

accompanying drawings which are briefly summarized below, the following detailed description of the presently-preferred embodiments of the invention, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a functional block diagram of a communication system which incorporates an embodiment of the present invention as a portion thereof.

Figure 2 is a perspective view of a card member containing a memory element of an embodiment of the present invention which stores informational data therein.

Figure 3 is an hierarchical block diagram illustrating the hierarchical arrangement of data stored in the memory element shown in Figure 2.

Figure 4 is a logical flow diagram illustrating the method of operation of an embodiment of the present invention.

Figure 5 is a diagram illustrating the format of an emergency message transmitted during operation of an embodiment of the present invention.

Figure 6 is a functional block diagram illustrating fixed-station equipment of an embodiment of the present invention and the connection thereof to an emergency dispatch center.

Figure 7 is a functional block diagram of another embodiment of the present invention.

DETAILED DESCRIPTION

Referring first to Figure 1, a communication system, shown generally at 10 is shown. An embodiment of the

present invention forms a portion of the communication system 10. The communication system 10 forms a wireless communication system, here a cellular communication system. The teachings of the present invention may analogously be utilized in other types of wireless communication systems and the following description of operation of embodiments of the present invention in a cellular communication system is exemplary in nature.

The system 10 includes a radio telephone 12 which generates and transmits radio frequency signals upon a radio frequency channel to a fixed-site base station 16. The base station 16 is coupled to a mobile switching center (MSC) 17. The mobile switching center, in turn, is coupled to a public service telephonic network (PSTN) 18.

The PSTN 18, in conventional manner, is coupled to numerous wireline locations, such as the emergency dispatch center 22. While not shown in the figure, a conventional cellular communication system typically includes a plurality of base stations positioned at spaced-apart locations throughout a geographical area. The base station 16 illustrated in Figure 1 is exemplary of one of such base stations. The radio telephone 12, base station 16, and MSC 17 together form a public land mobile network (PLMN) 20.

The radio telephone 12 is illustrated in the figure to include transceiver circuitry 24 having transmitter and receiver portions for transmitting and receiving signals by way of an antenna element 26. Operation of the radio telephone 12 is controlled by control circuitry 28 which is coupled to the transceiver circuitry by way of lines

32. An operator of the radio telephone 12 inputs control commands and data to effectuate operation of the radio telephone by way of an input keypad 34 which is coupled to the control circuitry 28 by way of lines 36. In one embodiment of the present invention, the keypad includes a dedicated key for requesting emergency assistance. Actuation of the dedicated key permits a request for emergency assistance to be made merely by actuation of the dedicated key.

A portable memory element 38 is releasably connectable to the control circuitry 28 by way of lines 42. In one embodiment of the present invention, the portable memory element 38 is disposed upon a C- or D-Net-sized card member, as described above. When suitably positioned at, and coupled to, the control circuitry 28, the portable memory element 38 forms a portion of the radio telephone 12. When released out of engagement with the lines 42 extending to the control circuitry 28, the memory element 38 can be removed out of the radio telephone 12, all in conventional fashion.

As described above, a portable memory element is received at a card reader assembly, thereby to be connected to the control circuitry 28. The lines 42 extend to electrodes forming portions of the card reader assembly to permit the electrical connections to be formed with the memory element 38.

A subscriber of the radio telephone 12 can communicate telephonically with any communication station connected to, or coupled to, the PSTN 18. Telephonic communication can be initiated at the radio telephone 12 by way of appropriate input entered by way of the input

keypad 34. Alternately, telephonic communication can be initiated at another communication station connected to the PSTN 18 in conventional manner.

In the event of an emergency situation, a subscriber operating the radio telephone 12 can request emergency assistance by placement of a call to emergency personnel to request assistance. In areas which provide for "911" emergency calls, appropriate entry of the digits "9-1-1" by way of the input keypad 34 initiates communication between the subscriber positioned together with the radio telephone 12 and emergency personnel located at an emergency dispatch center, here emergency dispatch center 22. Once telephonic communication is effectuated between the radio telephone 12 and the emergency dispatch center 22, dispatch personnel at the emergency dispatch center 22 can dispatch appropriate emergency personnel to provide assistance to alleviate the emergency.

As noted above, when 911-emergency assistance is requested by way of a wireline device, positional information related to the position of the wireline device is automatically communicated to the emergency dispatch center. Because a wireless device, such as the radio transceiver 12 is not connected to the PSTN 18 by way of a wireline connection, the precise location of the radio telephone 12 can not be automatically communicated to dispatch personnel at the emergency dispatch center. Only the location of the base station 16 at which radio frequency signals 14 transmitted by the radio telephone 12 are received can be automatically transmitted to the emergency dispatch center. Such location can provide dispatch personnel of the emergency dispatch center with

the general area at which the radio telephone 12 is positioned, but the precise location of the radio telephone can not be determined without the communication of additional information provided by the subscriber at the radio telephone 12.

The subscriber initiating the emergency request by way of the radio telephone 12 might be unable to provide to the dispatch personnel information pertaining to the subscriber's position. If the subscriber is unable to provide the positional information, the subscriber might well be the party in need of emergency assistance, and the subscriber might well be unable to communicate to the dispatch personnel other identification information related to the subscriber, such as the subscriber's medical history and physical characteristics.

In an embodiment of the present invention, identification data is stored at the portable memory element 38. The identification data includes, *inter alia*, data pertaining to the medical history of the subscriber and the physical characteristics of the subscriber. In the event that the subscriber initiates a call to an emergency dispatch center, such as the center 22, the control circuitry 28 detects such initiation and automatically transmits the identification data stored at the portable memory element 38 whereat detection of such transmitted information can thereafter be provided to the dispatch personnel of the emergency dispatch center.

The identification data stored at the portable memory element 38 can be retrieved and thereafter modulated by the transmitter portion of the transceiver circuitry 24 in a manner analogous to the manner by which the

electronic serial number and other data conventionally stored at the portable memory element is retrieved therefrom and modulated by the transceiver circuitry 24. Once modulated, the data is transmitted upon a radio frequency channel.

Appropriate software or hardware logic of the control circuitry 28 can detect entry of a selected sequence of digits by way of the input keypad 34 such as the aforementioned 9-1-1 sequence. Alternately, actuation of a particular key of the keypad 34 dedicated for emergency communications can be detected by logic of the control circuitry. Upon detection of entry of a particular sequence of digits, or actuation of the dedicated key, the control circuitry 28 accesses memory locations of the portable memory element 38, retrieves the data stored therein, and provides such data to the transceiver circuitry 24 to be modulated thereat. While separate lines 42 and 32 are illustrated in the figure, the data retrieved from the portable memory elements may be transmitted by way of an internal bus of the radio telephone 12 to the transceiver circuitry 24.

In one embodiment of the present invention, the identification data transmitted by the radio telephone 12 is received by the base station 16 and thereafter stored in a storage location which is accessible by personnel of the emergency dispatch center. When the telephonic communication is effectuated with the dispatch center 22, the personnel of the dispatch center are provided with an indication that the identification data has been received at the base station 16 and stored in appropriate storage elements coupled thereto. The personnel of the emergency

dispatch center can thereafter retrieve such storage data if necessary.

The portable memory element 38 is again shown in Figure 2. In the embodiment illustrated in Figure 2, the memory element forms a C-Net-sized card member of physical dimensions corresponding roughly to the dimensions of a conventional-sized credit card. The memory element 38 is of dimensions specified for a C-Net-sized SIM card and includes a read only memory (ROM) portion, a random access memory (RAM) memory portion and an electrically erasable programmable read only memory (EEPROM) memory portion.

An integrated circuit 42 mounted upon a plastic frame 44 forms the various memory element portions in which information is stored. A series of electrodes 46 are formed upon a face surface of the memory element 38 to permit connection with corresponding electrodes of a conventional, card reader assembly of a radio telephone. The memory element can be carried by a subscriber to a cellular, or other wireless, communication system and inserted into any radio telephone constructed to receive such a memory element.

If a subscriber to a cellular, or other wireless, communication system possesses two or more radio telephones, each operative to receive a portable memory element, such as the portable memory element 38, the subscriber can alternately use a selected one of the radio telephones by inserting the portable memory element 38 therein. Once inserted, data stored in the memory locations of the memory element, such as the electronic serial number, can be accessed. The subscriber thereby incurs only a single activation and maintenance fee while

being permitted to utilize, alternately, any of many radio telephones to communicate by way of the cellular, or other wireless, communication system. A card member of another size, such as a D-Net-sized card member, is similar in function with the C-Net-sized card member and can be similarly illustrated.

Figure 3 illustrates functionally the information stored in the memory locations of the memory element 38 according to an embodiment of the present invention. The memory element 38 includes a directory 48 which is first accessed, in conventional manner, when data stored in the memory locations of the memory element 38 is to be accessed or retrieved. Selected memory locations of the memory element 38 are accessed by first addressing the directory 48.

In the embodiment of the memory element 38 illustrated in the figure, the memory element further includes a security subdirectory 52 which is further accessed when security-related information is accessed. An encryption key 54 is exemplary of security data stored in the memory element 38. The encryption key 54 is used to encrypt data prior to transmission at the radio telephone and to decrypt data transmitted to the radio telephone.

A listing of authorized operators 56 is also stored in the programmable memory element 38. A list of authorized operators indicate the carriers whose systems are authorized to be accessed during operation of the radio telephone. The memory locations addressed by way of the security directory and the listing of authorized operators is typically stored in the memory locations of

the memory element upon activation of the subscriber's service with a cellular communication system.

Personal security data 58 and an abbreviated dialing list, i.e., a speed-calling list, 62 are also stored in the memory locations of the memory element 38. In an embodiment of the present invention, identification data 64, identifying the subscriber with the subscriber's personal identification information, such as physical characteristics and medical information, is also stored in memory locations of the memory element 38.

The personal security data 58, the abbreviated dialing list 62, and the identification data 64 can be stored, for instance, in EEPROM memory portions of the memory element 38 to permit updating of the information stored therein, when appropriate.

In one embodiment of the present invention, the data 58, the dialing list 62, and the identification data 64 is stored in the memory locations at the same time in which the other data is stored in other memory locations of the memory element 38. In another embodiment of the present invention, the data 58, dialing list 62, and identification data 64 are stored in the memory locations by the subscriber by way of appropriate interaction with, for example, the input keypad of a radio telephone. In this embodiment, the subscriber is able to update such user-defined data, whenever desired. Once stored in the memory locations, the data stored therein can be addressed and retrieved by accessing the directory 48.

During operation of an embodiment of the present invention, when a request for emergency assistance is requested by the subscriber, the identification data 64

stored in the memory element 38 is automatically accessed and transmitted automatically to provide emergency dispatch personnel with such identification data. Because the identification data is automatically transmitted, emergency personnel are provided with the identification data even if the subscriber is unable to communicate properly such information to the emergency dispatch personnel.

Figure 4 illustrates a method, shown generally at 72, of operation of an embodiment of the present invention. The method 72 retrieves informational data of a subscriber when a request for emergency assistance is requested by the subscriber. The request is made by way of a radio telephone, such as the radio telephone 12 shown in Figure 1, and a programmable memory element, such as the memory element 38, is coupled to the radio telephone to form a portion thereof.

First, and as indicated by the decision block 74, a determination is made as to whether a request, e.g., entry of the digits "9-1-1", for emergency assistance has been entered. If not, a no branch is taken to program exit 76. If a request for emergency assistance has been entered, the yes branch is taken to decision block 76.

At the decision block 78, a determination is made as to whether positional information pertaining to the position of the subscriber when the request for emergency assistance is entered is available. If so, the yes branch is taken to block 80 whereat the format, by way of type of positional information, is identified. Thereafter, and as indicated by the block 82, a location field is populated with the positional information. If, positional

information is not available, a no branch is taken from the decision block 78 to block 84 where the format and location field is populated with null values.

A determination is thereafter made, as indicated by the logic block 86, as to whether a user-defined memory-element portion of the programmable memory element includes medical information of the subscriber. If so, a yes branch is taken to block 88 and a medical information parameter is set to a "true" logical value. Then, and as indicated by block 92, a field is populated with medical information retrieved from the memory element. If, conversely, the no branch is taken from the logic block 86, the medical information parameter and medical information field is populated with null values, as indicated by the block 94.

Thereafter, and as indicated by the decision block 96, a determination is made as to whether the user-defined memory-element portion includes physical information of the subscriber. If so, a yes branch is taken to the block 98 and a physical information parameter is set to a "true" logical value. Then, and as indicated by the block 102, a physical information is populated with physical information retrieved from the memory element. If the no branch is taken from the decision block 96, the physical information parameter and physical information field is populated with null values, as indicated by the block 104.

Thereafter, an emergency information data message is transmitted by the radio telephone, as indicated by the block 106.

The operation of the method 72 automatically retrieves data from a portable memory element and causes transmission of such retrieved data merely upon detection of entry of an emergency request. The subscriber of the radio telephone is able to provide emergency personnel with the information stored in the memory element without further action on the subscriber's part. If the subscriber is unable otherwise to communicate to emergency personnel such information, the emergency personnel are still able to obtain the emergency information stored in the programmable memory element of the subscriber, and the emergency personnel are better able to facilitate a response to the emergency request. Figure 5 illustrates a message format, shown generally at 112, which is formed during operation of an embodiment of the present invention. The information generated during operation of the method 72, shown in Figure 4, forms a portion of the information formatted according to the message format 112. The message format is the general format defined for a personal communications system (PCS) 1900, wireless communication system.

The PCS 1900 system defines an emergency setup which defines a call message structure for a mobile-originated emergency call placed by a radio telephone operable in a PCS 1900 communication system. Other communication systems define other message formats and structures and the message format illustrated in Figure 5 is exemplary in nature.

The message format 112 includes a protocol discriminator 114, a transaction identifier 116, a message-type identifier 118, a bearer capability lock 122,

and an extension information block 124. The data contained in the elements or blocks 114-122 are all defined in the aforementioned PCS 1900 systems. The extension information 124 is populated with the data generated during operation of the method 72, shown in Figure 4.

According to the protocol of operation of a radio telephone operable in the PCS 1900 system, a message formatted according to the message format 112 shown in Figure 5 is generated and transmitted responsive to entry of a request, such as entry of the digits "9-1-1", for emergency assistance. The informational data contained in the portable memory element can thereby be provided automatically, merely by entry of the request for the emergency assistance by the subscriber.

Figure 6 illustrates a portion of fixed-site equipment of a cellular communication system and the connection of such equipment to an emergency dispatch center 22, shown previously in Figure 1. A base station 16 which receives signals generated by a radio telephone is again shown in the figure. The base station 16 is here shown to be connected to the public service telephonic network 18 by way of a mobile switching center 128. The mobile switching center is coupled to an operation and maintenance center (OMC) 132 in conventional manner. The base station 16, mobile switching center 128, and OMC 132 form portions of a public land mobile network 20.

An emergency setup message transmitted according to, for example, the message format 112, is received by the base station 16 and supplied to the MSC 128. The extension information 124 formed of the informational data

is provided to the OMC 132 where, for example, the information can be displayed. The incoming call is routed, in normal fashion, to the emergency dispatch center 22. The emergency dispatch center is able to determine the MSC 128 of the cellular communication system from which the call has originated. The emergency dispatch center is also provided with an indication that the MSC 128 supports the reception of the extension information 124. Dispatch personnel of the emergency dispatch center are able to inquire of the OMC 132 if additional informational data regarding the request for emergency assistance has been received. Responsive thereto, the OMC provides access to the dispatch personnel with the received informational data. Use of the informational data facilitates the dispatch of appropriate emergency personnel responsive to the request. An SS7 communication system, conventional in the art, encompasses the portion of the fixed-site equipment shown in Figure 6 according to one embodiment of the present invention. As an SS7 communication system supports an Integrated Service Digital Network (ISDN) User Part (ISUP), the extension information can be supplied directly to the emergency dispatch center 22 rather than to the OMC 132 by appropriate protocol support added to the ISUP. For instance, by extension of the ISUP, the extension information can be added as part of a calling party information field, analogous, e.g., to extensions to DTAP. The extension information can be, e.g., explicitly stated in the ISUP message, such as in the initial address message. In other embodiments, the switches interconnecting the emergency information requester and

the dispatch center can further store indications as to whether the network supports the transmission of the extension information in such manner. Such an embodiment obviates the need by the emergency personnel to separately access the OMC 132.

Figure 7 illustrates a radio telephone, shown generally at 212, of which another embodiment of the present invention forms a portion. Analogous to the radio telephone 12 shown in Figure 1, the radio telephone 212 generates and transmits radio frequency signals upon a radio frequency channel to a fixed-site base station (not shown in the figure).

The radio telephone 212 is illustrated in the figure to include transceiver circuitry 224 having transmitter and receiver portions for transmitting and receiving signals by way of an antenna element 226. Operation of the radio telephone is controlled by control circuitry 228 which is coupled to the transceiver circuitry by way of lines 232. An operator of the radio telephone 212 inputs control commands and data to effectuate operation of the radio telephone by way of an input keypad 234 which is coupled to the control circuitry 228 by way of lines 236.

A portable memory element 238 is releasably connectable to the control circuitry 228 by way of lines 242. The portable memory element 238 is similar in structure and function with the portable memory element 38 shown in preceding figures.

The radio telephone 212 further includes a global positioning receiver 244, operative in conventional manner in a global positioning system to determine the latitudinal and longitudinal, or other positional,

coordinates of the global positioning receiver 244. The global positioning receiver 244 is coupled to the control circuitry 228 by way of the lines 246.

The radio telephone 212 is operable in manners analogous to operation of the radio telephone 12 shown in Figure 1 to retrieve informational data stored at the portable memory element 238 responsive to entry of a request for emergency assistance by a subscriber. In this embodiment, the positional coordinates determined by the global positioning receiver 244 are also retrieved by the control circuitry 228.

Both the positional information and the informational data are provided to the transceiver circuitry 224 in a desired message format and transmitted automatically by the radio telephone 212. In this manner, emergency dispatch personnel are provided not only with informational data pertaining to the subscriber, but also with positional data identifying the physical location at which the request for emergency assistance has been initiated.

Operation of embodiments of the present invention facilitate the communication of at least informational data to an emergency dispatch center when a call to the emergency dispatch center is placed at the radio telephone. Because the information is transmitted automatically, information is provided to the emergency dispatch center even if the subscriber is unable otherwise to communicate with personnel of the emergency dispatch center.

Any radio telephone in which a memory element, such as the memory element 238, is inserted is automatically

provided with the informational data associated with the subscriber. In the event that an emergency call is placed with the radio telephone, such informational data is automatically provided to an emergency dispatch center. If the radio telephone further includes a global positioning receiver, precise, positional data is also provided to the emergency dispatch personnel.

Presently-preferred embodiments of the present invention have been described with a degree of particularity. The previous descriptions are of preferred examples for implementing the invention, and the scope of the invention should not necessarily be limited by this description. The scope of the present invention is defined by the following claims.

WHAT IS CLAIMED IS:

1. A device for providing informational data associated with a subscriber of a radio communication system to an emergency dispatch center by way of a mobile subscriber unit, the mobile subscriber unit operable at least to communicate telephonically with the emergency dispatch center responsive to a request entered by way of a mobile unit input element, said device comprising:

a memory element removably connectable to the mobile subscriber unit, said memory element for storing therein the informational data associated with the subscriber; and

an emergency request controller for detecting times in which the request to communicate telephonically with the emergency dispatch center is entered by way of the mobile subscriber unit, and responsive thereto, for transmitting the informational data stored at said memory element to the emergency dispatch center.

2. The device of claim 1 further comprising a global positioning receiver positioned together with the mobile subscriber unit, said global positioning receiver for generating positional data indicative of positioning of the mobile subscriber unit, and wherein said emergency request controller is further for transmitting the positional data generated by said global positioning receiver to the emergency dispatch center.

3. The device of claim 2 wherein said emergency request controller transmits the positional data generated by said global positioning receiver responsive to

detection of the request to communicate with the emergency dispatch center automatically without additional action by the subscriber.

4. The device of claim 1 wherein said memory element forms a portion of a SIM card.

5. The device of claim 4 wherein the informational data is stored at memory locations formatted to be user-defined memory locations of said SIM card.

6. The device of claim 4 wherein the informational data is stored at said SIM card prior to positioning of the SIM card at the mobile subscriber unit.

7. The device of claim 4 wherein the informational data is stored at said SIM card subsequent to positioning of the SIM card at the mobile subscriber unit.

8. The device of claim 1 wherein the informational data comprises medical information related to medical characteristics of the subscriber.

9. The device of claim 1 wherein the informational data comprises physical information related to physical characteristics of the subscriber.

10. The device of claim 1 wherein said emergency request controller transmits the informational data stored at said memory element responsive to detection of the

request to communicate with the emergency dispatch center automatically without additional action by the subscriber.

11. The device of claim 1 wherein said memory element comprises a programmable memory element and wherein the informational data is entered for storage in said programmable memory element by way of the mobile subscriber unit transducer.

12. The device of claim 1 wherein said emergency request controller further converts the informational data into a selected format, said selected format identifying the informational data by data type and data amount.

13. A method for providing informational data associated with a subscriber of a radio communication system to an emergency dispatch center by way of a mobile subscriber unit, the mobile subscriber unit operable at least to communicate telephonically with the dispatch center responsive to a request entered by way of a mobile unit input element, said method comprising the steps of:

storing the informational data associated with the subscriber in a memory element removably connectable to the mobile subscriber unit;

detecting times in which the request to communicate telephonically with the emergency dispatch center is entered by way of the mobile; and

transmitting the informational data stored at the memory element during said step of storing to the emergency dispatch center responsive to detection during said step of detecting of entry of the request to

communicate telephonically with the emergency dispatch center.

14. The method of claim 13 wherein the informational data stored in the memory element during said step of storing is stored prior to connecting the memory element to the mobile subscriber unit.

15. The method of claim 13 wherein the informational data stored in the memory element during said step of storing is stored subsequent to connecting the memory element to the mobile subscriber unit.

16. The method of claim 13 wherein the mobile subscriber unit comprises an input keypad and wherein said step of detecting comprises detecting times in which a selected sequence of digits is entered by way of the input keypad.

17. The method of claim 13 wherein the mobile subscriber unit comprises an input keypad having an actuation key dedicated to requesting emergency assistance and wherein said step of detecting comprises detecting times 17 which the actuation key is actuated.

18. In a radio telephone having a SIM card releasably connectable therein, an improvement of a device for providing informational data associated with a subscriber of a radio communication system to an emergency dispatch center by way of a mobile subscriber unit operable at least to communicate telephonically with the

emergency dispatch center responsive to a request entered by way of the mobile unit input element, said device comprising:

selected memory locations of the SIM card for storing therein the informational data associated with the subscriber; and

an emergency request controller for detecting times in which the request to communicate telephonically with the emergency dispatch center is entered by way of the mobile subscriber unit, and responsive thereto, for transmitting the informational data stored at said memory element to the emergency dispatch center.

19. A SIM card for a radio telephone operable in a wireless communication network, said SIM card comprising:

an operational data memory location for storing operational data utilized during operation of the radio telephone to access the wireless communication network; and

a personal data memory location for storing personal data pertaining to a subscriber of telephonic service in the wireless communication network, the personal data retrievable when a request for emergency assistance is made by way of the radio telephone.

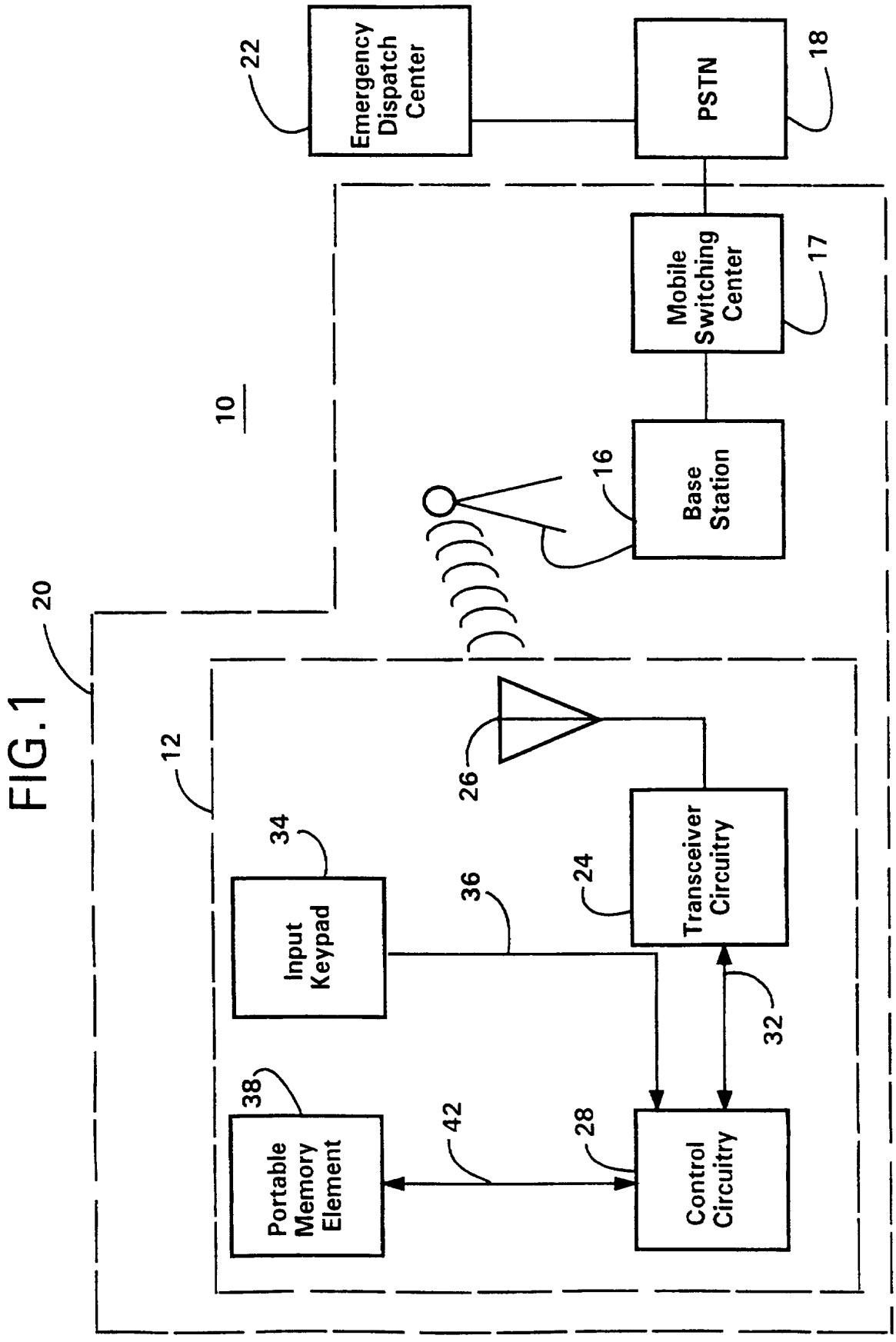

Emergency Dispatch Center
22
PSTN
18
Mobile Switching Center
17
10
Base Station
16
20
12
26
34
Input Keypad
36
24
Transceiver Circuitry
32
38
Portable Memory Element
42
28
Control Circuitry

FIG. 1

FIG.2

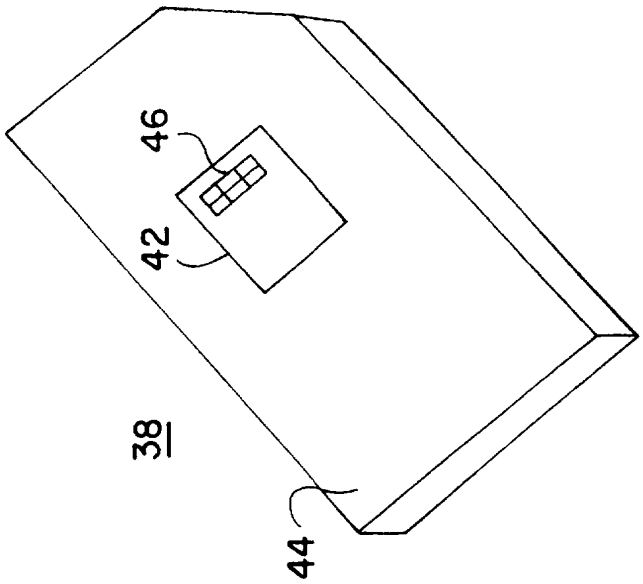


FIG.3

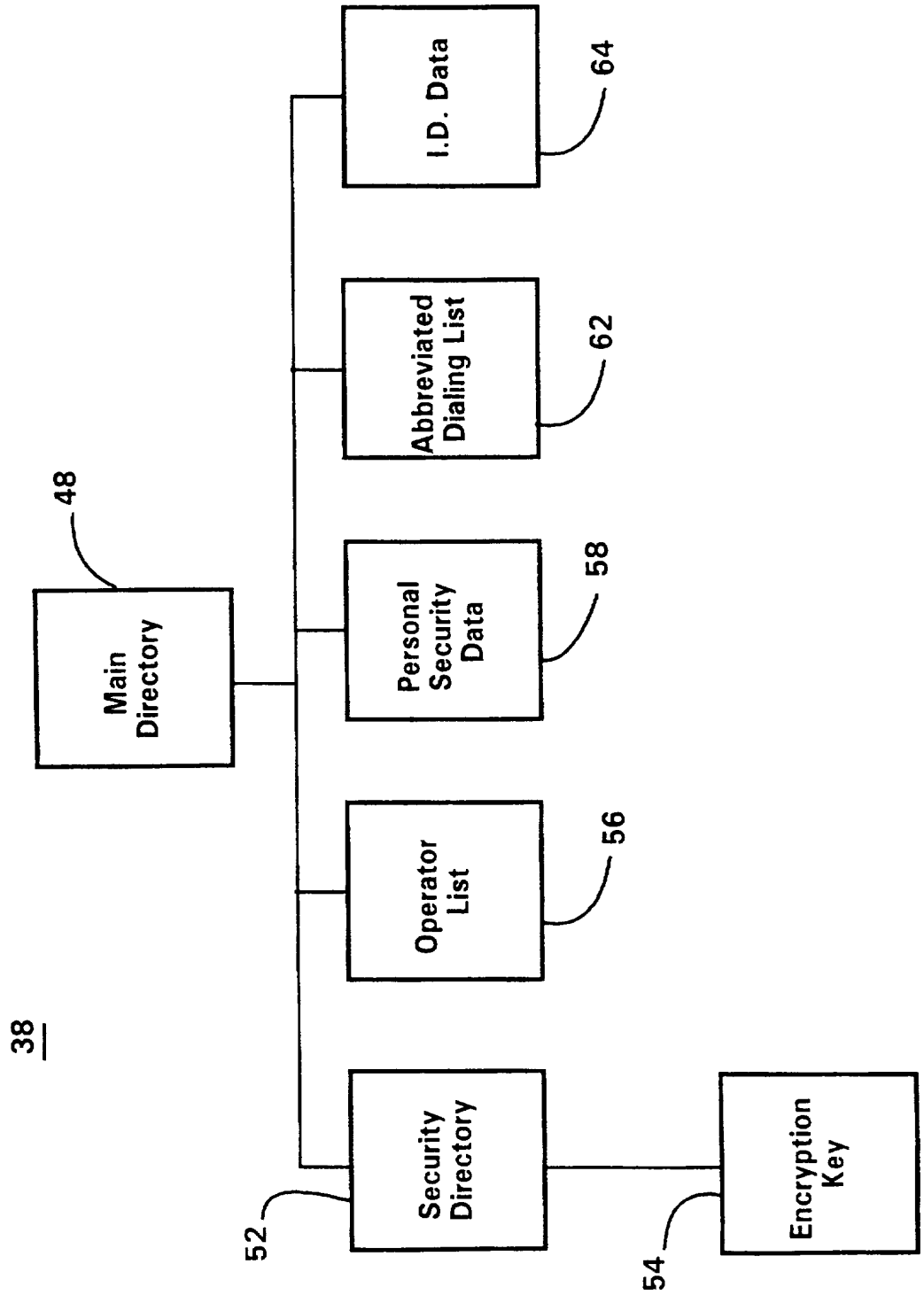
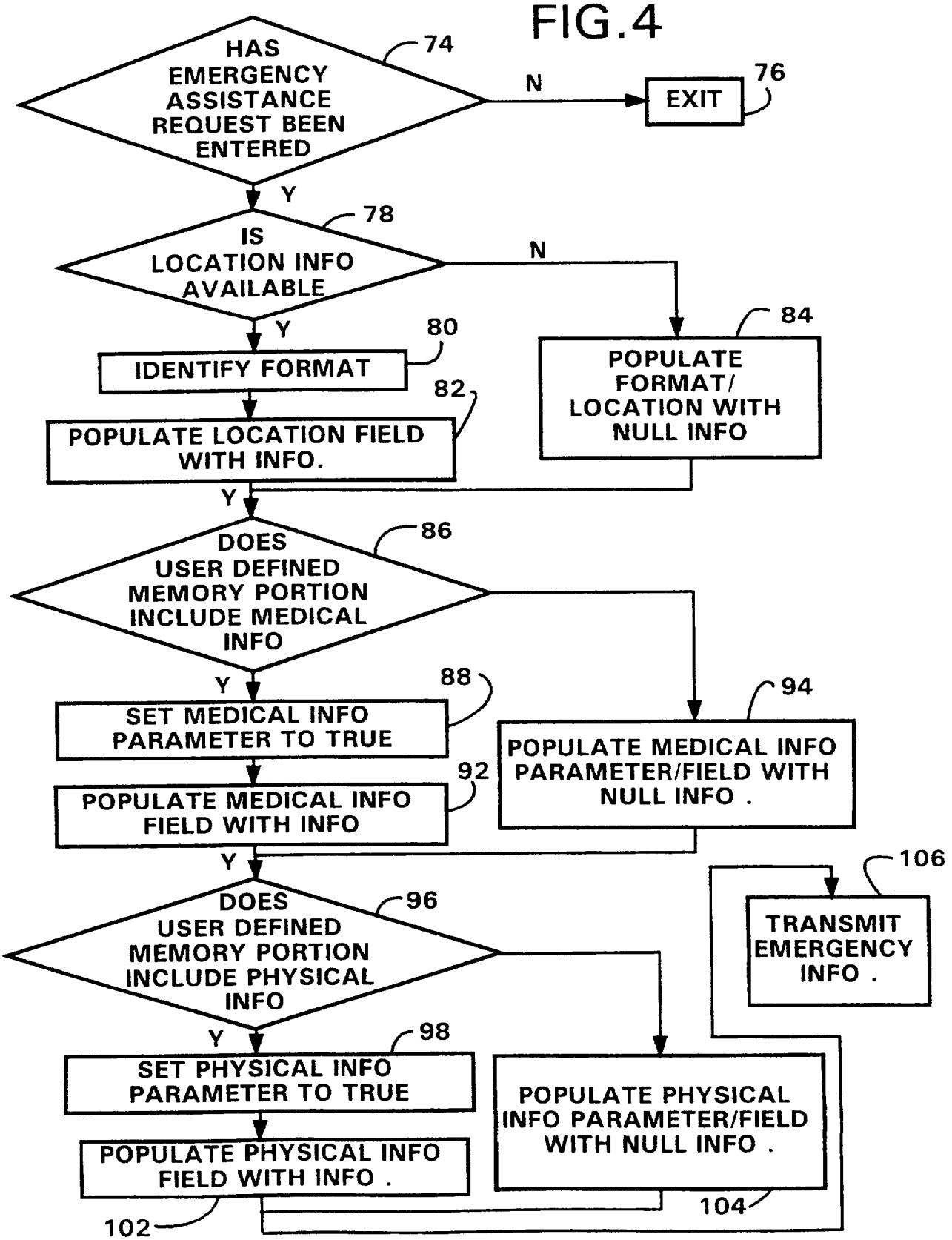

38
Main Directory
48
I.D. Data
64
Abbreviated Dialing List
62
Personal Security Data
58
Operator List
56
Security Directory
52
Encryption Key
54

FIG.4


HAS EMERGENCY ASSISTANCE REQUEST BEEN ENTERED
74
N
EXIT
76
Y
IS LOCATION INFO AVAILABLE
78
N
Y
IDENTIFY FORMAT
80
POPULATE LOCATION FIELD WITH INFO.
82
POPULATE FORMAT/ LOCATION WITH NULL INFO
84
Y
DOES USER DEFINED MEMORY PORTION INCLUDE MEDICAL INFO
86
Y
SET MEDICAL INFO PARAMETER TO TRUE
88
POPULATE MEDICAL INFO FIELD WITH INFO
92
POPULATE MEDICAL INFO PARAMETER/FIELD WITH NULL INFO .
94
Y
DOES USER DEFINED MEMORY PORTION INCLUDE PHYSICAL INFO
96
TRANSMIT EMERGENCY INFO .
106
Y
SET PHYSICAL INFO PARAMETER TO TRUE
98
POPULATE PHYSICAL INFO FIELD WITH INFO .
102
POPULATE PHYSICAL INFO PARAMETER/FIELD WITH NULL INFO .
104

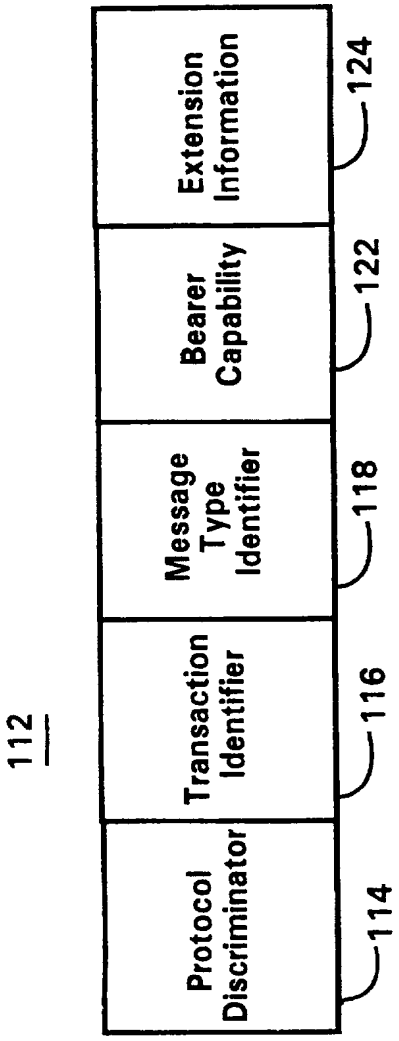

112
Protocol Discriminator
114
Transaction Identifier
116
Message Type Identifier
118
Bearer Capability
122
Extension Information
124

FIG.5

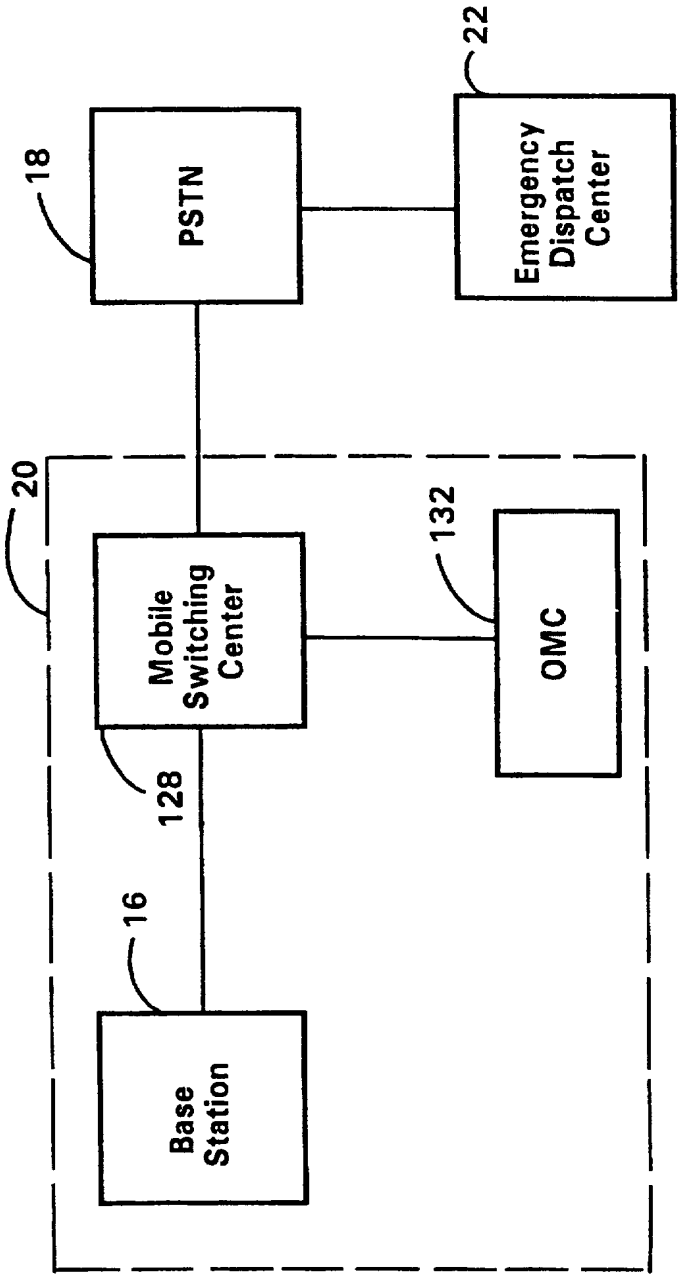
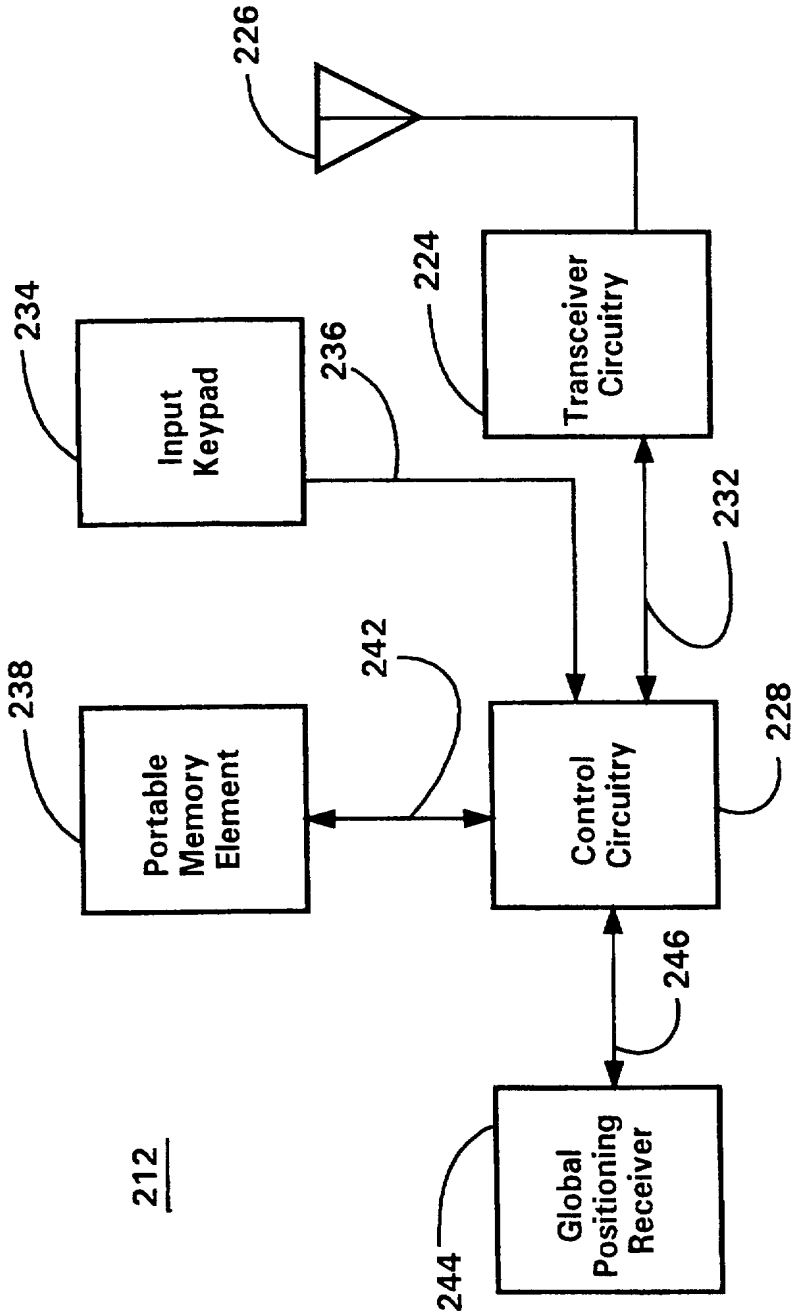

18
PSTN
22
Emergency Dispatch Center
20
Mobile Switching Center
132
OMC
128
16
Base Station

FIG.6

FIG.7


226
224
Transceiver Circuitry
234
Input Keypad
236
232
242
238
Portable Memory Element
Control Circuitry
228
246
212
Global Positioning Receiver
244

INTERNATIONAL SEARCH REPORT

Inte onal Application No
PCT/US 96/20419

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 H04Q7/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 44 21 508 A (BUREN ELKE VAN) 1 December 1994	1-11, 13-19
A	see column 1, line 1 - column 4, line 30	12
A	EP 0 679 041 A (SIEMENS AG) 25 October 1995 see abstract	1-19

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

1

Date of the actual completion of the international search	Date of mailing of the international search report
25 April 1997	29. 05. 97

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl, Fax (+ 31-70) 340-3016	Andersen, J.G.

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

information on patent family members

Inte onal Application No
PCT/US 96/20419

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 4421508 A	01-12-94	AU 7067394 A	17-01-95
		WO 9500860 A	05-01-95
		EP 0739491 A	30-10-96
EP 0679041 A	25-10-95	NONE	

Form PCT/ISA/210 (patent family annex) (July 1992)

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(12) **Patentschrift**

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(45) Veröffentlichungstag der Patenterteilung: 13. 7. 2000

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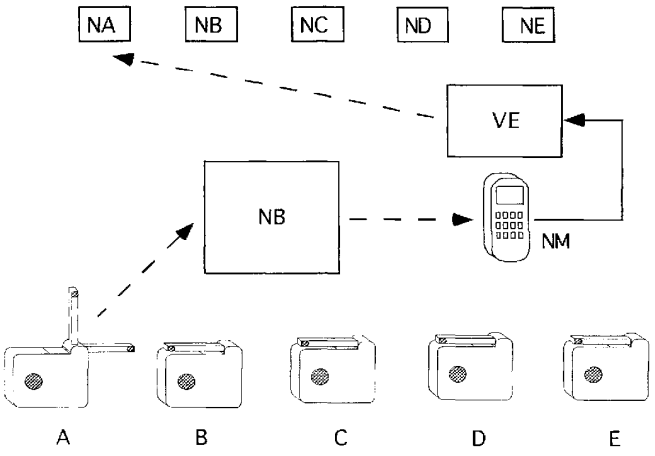
(72) Erfinder:
gleich Patentinhaber

(56) Für die Beurteilung der Patentfähigkeit in Betracht gezogene Druckschriften:
DE 43 18 441 A1
DE 27 43 476 A1

(54) Vorrichtung und Verfahren für ein Notfunktelefonsystem

(57) Vorrichtung und Verfahren für ein Notfunktelefonsystem, dadurch gekennzeichnet, daß Funktelefone verwendet werden, die nur ein oder wenige eine Taste haben, mit der eine einzige oder wenige Nummern direkt gewählt werden.



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BUNDESDRUCKEREI 05.00 002 128/136/9

Beschreibung

Die Erfindung betrifft eine Vorrichtung und ein Verfahren für ein Notfunktelefonsystem nach dem Oberbegriff des Anspruchs 1. (DE 43 18 441 A1) Es ist vor allem für Notfälle und zum Kontakthalten zu Kindern vorgesehen. Dabei ist eine sehr einfache Handhabung notwendig. Darüber hinaus muß ein solches System sehr preiswert sein.

Es sind bisher nur Funktelefone bekannt, die über eine Nummern Tastatur und verschiedene Einschalt- und Auschaltknöpfe eine Bedienung erlauben. Es gibt auch im Telefonbereich Geräte bei denen nach einer entsprechenden Einstellung durch eine beliebige Taste, eine vorher programmierte Nummer angewählt wird. Alle diese Geräte sind aber Geräte, die vollständig aufgebaut sind und damit teuerer in der Herstellung sind, als es ein Notfunktelefon sein muß. Im Notfall oder bei der Nutzung durch Kinder ist auch die Verwendung einer einzigen oder sehr weniger Tasten eine hohe Gewähr gegen Fehlbedinungen.

Die bisher vorhandenen Geräte sehen alle die Möglichkeit vor beliebige Verbindungen zu anderen Gesprächspartnern zuzulassen. Da im Notfall es in der Regel nur notwendig ist eine Verbindung zu einer vorher festgelegten Person oder Institution herzustellen, ist es nicht notwendig weiter Bedienelemente einzubauen. Durch die Verwendung von Displays und vielen Bedienelementen werden normale Funktelefone auch unnötig groß und schwer. Über die Festlegung der Personen oder Institutionen auf einzelne oder wenige ist dieses Telefon kein Ersatz für normale Telefone und kann von Netzwerkbetreibern oder Geräteanbietern zusätzlich zu den bisherigen Systemen angeboten werden, ohne daß dadurch herkömmlichen Geräten Konkurrenz erwächst.

Es ist ein Notruf-System (ESYS) bekannt das über eine drahtlose Notruf-Sendevorrichtung verfügt (DE 43 18 441 A1). Dieses System arbeitet auch über Mobilfunknetze. Das System ist aber kein Telefon und ist nicht für eine Sprachkommunikation vorgesehen ist und erlaubt nur die Übersendung von Identitätskennungen und personenbezogenen bzw. medizinischen Daten. Bei Funkgeräten ist ein System bekannt, DE 27 43 476 A1, das mit einer oder wenigen Tasten auskommt und eine direkte Verbindung zu einer Zentrale herstellt. Dieses System ist ebenfalls kein Telefon und ist in der Anwendung örtlich begrenzt. Eine Nutzung von bestehenden Mobiltelefonnetzen ist nicht vorgesehen und nicht möglich.

Der Erfindung liegt die Aufgabe zu Grunde ein Notfunktelefonsystem zu ermöglichen, das Fehlbedienungen ausschließt, möglichst klein, leicht und billig zu bauen ist und keine teueren Investitionen bei den Netzwerkbetreibern notwendig macht.

Die Aufgabe wird erfindungsgemäß dadurch gelöst, daß das Funktelefon nur ein oder wenige Bedienelemente hat, mit der jeweils eine einzige oder wenige Nummern direkt gewählt werden.

Die mit der Erfindung erzielten Vorteile bestehen in der einfacheren Bauart des eigentlichen Telefons, das somit leichter, kleiner und billiger sein kann als bei herkömmlichen Funktelefonen. Außerdem ist die mechanische Stabilität, die Dichtigkeit gegen Wasser und Staub bei einer Taste einfacher zu erreichen, als bei einem Gerät mit vielen Bedienungselementen. Die Gefahr von Fehlbedienungen ist bei einem solchen Gerät wesentlich geringer als bei einem Gerät mit vielen Bedienelementen.

Bei bisherigen Geräten werden die Funknetze der Betreiber kontinuierlich von den eingeschalteten Geräten belastet. Bei einem Notfunktelefon ist das nicht unbedingt erforderlich. Wenn das Gerät erst im Notfall eingeschaltet wird, würde nur während des Gespräches eine Netzbelastung erfolgen und das wäre naturgemäß sehr selten der Fall. Bei herkömmlichen Geräten werden durch die permanente Anbindung an die Funknetze auch die Stromversorgungen der Funktelefone permanent genutzt.

Bei der Vorrichtung und dem Verfahren nach der Erfindung werden die Netzbetreiber nur im Bedarfsfall belastet und dadurch auch eine extrem lange Betriebsdauer der Notfunktelefone gewährleistet.

Nach Anspruch 2 wird dazu eine Taste benutzt oder die Antenne des Funktelefons oder das Mikrofon oder beides gleichzeitig aus dem Notfunktelefon ausgeklappt oder ausgezogen und dadurch das Funktelefon eingeschaltet und automatisch eine Verbindung hergestellt.

Bei Nichtbenutzung kann so eine jahrelange Betriebsbereitschaft des Notfunktelefons ohne Nachladung oder Batteriewechsel erfolgen. In diesem Fall ist auch die Ausstattung der Notfunktelefone mit traditionellen Batterien vorteilhaft, da sie die Geräte nochmals nachhaltig verbilligen. Darüber hinaus kann ein Netzbetreiber (C, D1, D4, E etc.) die Lizenz für die Nutzung seiner Infrastruktur und seiner Frequenzen sehr viel günstiger anbieten, als bei der Nutzung eines normalen Funktelefons, da keine dauernde Verwaltung der eingeschalteten Geräte erfolgen muß.

Diese Lösung hat noch den Vorteil, daß die Antenne oder und das Mikrofon aus dem Notfunktelefon herausgezogen werden und damit der notwendige Abstand zwischen Ohr und Mund beim Sprechen und Hören hergestellt werden kann ohne das Gerät entsprechend lang gestalten zu müssen. Bei diesem Herausziehen bzw. Herausklappen kann dann auch gleichzeitig die Verbindung hergestellt werden ohne ein weiteres Bedienelement zu aktivieren.

Nach Anspruch 3 gibt es die Möglichkeit, daß eine größere Anzahl von Notfunktelefonen (A–E) über gemeinsame Nummern bzw. Telefonkarten eines der bestehenden Mobiltelefonsysteme betrieben werden und daß Notrufe sich unter einer oder mehreren Nummern in das Netz (NB) einloggen und daß nach dem Zustandekommen der Verbindung eine Kennung von jedem einzelnen Notfunktelefon gesendet wird und über die angerufene Nummer eine entsprechende Rufweiterleitung (VE) zu den vorher für jedes Notruftelefon vorgesehenen Telefonnummern (NA–NE) durchgeführt wird.

Durch diese Vorgehensweise ist es viele Notfunktelefone über mehrere gemeinsame Nummer bzw. Telefonkarten mit entsprechend niedrigen Kosten über ein normales Mobiles Telefonnetz (C, D1, D2, E etc.) zu nutzen. Sollte die in die Notfunktelefone einprogrammierte erste Nummer zufälligerweise durch den Notruf eines anderen Telefons besetzt sein kann automatisch eine der anderen Zugangsnummern zu den Mobiltelefonnetzen angerufen werden, bis eine Verbindung hergestellt ist. Nach dem Zustandekommen einer Verbindung kann wird über eine Zentrale die Kennung, die jedes einzelne Notfunktelefon vorgesehen ist, eine Rufweiterleitung an die individuell vorgesehenen Nummern vornehmen. Durch ein solches Konzept kann die bisherige Infrastruktur der Netzbetreiber unverändert übernommen werden. Es ist lediglich vorzusehen, daß nachdem eine Verbindung zum Funknetz hergestellt ist die Notfunktelefone eine individuelle Kennung senden, die für die individuelle automatische Rufweiterleitung verwendet wird.

Um in dem Notfunktelefon keine Speicherbausteine für Rufnummern etc. und keine Wähleinrichtung vorsehen zu müssen, ist nach Anspruch 4 vorgesehen, daß die Wahl der Nummern über die Netzbetreiber automatisch nach dem Einschalten und Einloggen des Notfunktelefons erfolgt und ggf. mehrere Nummern die vom Nutzer beantragt worden sind nacheinander vom Netzbetreiber angewählte werden,

bis eine Verbindung hergestellt werden kann. Dadurch kann der Anzurufende bei Standortwechsel oder aus anderen Gründen bei dem Netzwerkbetreiber die anzurufenden Nummern aktualisieren und braucht dafür nicht das Notfunktelefon. Der Netzwerkbetreiber hat außerdem die Möglichkeit je nach Anzahl der anzurufenden Nummern dieses unterschiedlich in Rechnung zu stellen.

Sollte es notwendig oder erwünscht sein den Träger eines Notfunktelefons dazu aufzufordern sein Telefon einzuschalten, so ist dies möglich, wie in Anspruch 5 beschrieben. Danach kann ein Notfunktelefon so ausgestaltet sein, das es ein Europiepsersignal empfangen kann und ein akustisches Signal den Träger auffordert es einzuschalten, oder daß das Europiepsersignal das Gerät von selbst einschaltet.

Sollte das Gerät nur über ein Bedienelement verfügen, so kann das Abschalten einer Verbindung über zwei Möglichkeiten erfolgen. Die Gegenseite legt auf, oder die Gesprächsdauer wird vom Netzbetreiber oder geräteintern begrenzt. Diese letztere Lösung wird im Anspruch 6 angesprochen. Darin wird festgestellt, daß das Funktelefon nur Gespräche einer festgelegten Dauer zuläßt.

Um zu ermöglichen, daß auch der Anzurufende das Zustandekommen eines Gespräches erreichen kann, ist nach Anspruch 7 vorgesehen daß das Telefon nach vorgegebenen Zeiten automatisch eine Verbindung herstellt und dabei eine besondere Nummer des Netzwerkbetreibers anwählt, bei der die Anzurufenden ihren Wunsch anmelden können von dem Notruftelefon aus angerufen zu werden und wenn dies der Fall ist durch ein akustisches oder optisches Signal an dem Notfunkgerät signalisiert wird, daß ein Anruf ausgelöst werden soll. Der Vorteil dieses Verfahrens ist, daß das Notfunktelefon vorwiegend ausgeschaltet ist und nur kurz eingeschaltet wird, um beim Netzwerkbetreiber nachzufragen, ob der Wunsch besteht eine Sprechverbindung herzustellen. Eltern z. B. haben damit die Möglichkeit Ihren Kindern mitzuteilen, daß sie gerne kontaktiert werden wollen. Diese Lösung setzt allerdings voraus, daß die Antenne nicht ausgeklappt werden muß.

Da das Notfunktelefon vor allem auch für Kinder verwendet werden soll, ist nach Anspruch 8 vorgesehen, daß dieses Telefon wassergeschützt oder und gegen Stoß und Schlag geschützt ist.

Um die Akzeptanz für Kinder groß zu machen ist nach Anspruch 9 vorgesehen, daß das Funktelefon farbig gestaltet ist und in Formen von Teddybären oder anderen kindergerechten Design hergestellt wird.

Um zu gewährleisten, daß das Notfunktelefon immer getragen wird und nicht verloren geht, ist nach Anspruch 10 vorgesehen, daß das Funktelefon am Gürtel getragen werden kann.

Eine andere Tragemöglichkeit ist in Anspruch 11 aufgeführt nach dem das Funktelefon an einem Band am Hals getragen werden kann und dieses Band eine Sollbruchstelle hat, an der es bei starkem Zug abreißt.

Wenn das Notfunktelefon klein genug ist oder von Erwachsenen getragen werden soll, kann es nach Anspruch 12 am Arm getragen werden.

Mit Klettbändern können leichte Telefone auch an der Kleidung befestigt werden. Deshalb ist nach Anspruch 13 vorgesehen, daß das Funktelefon mit einem Klettband an einem auf der Kleidung aufgenähten oder aufgebügelten Klettband angeheftet werden kann.

Ein Ausführungsbeispiel ist in der Zeichnung dargestellt und wird im folgenden näher beschrieben.

Es zeigen die **Fig.** 1 das Notfunktelefon (A) und die eingeklappte Antenne mit dem eingebauten Mikrofon (C) und den eingebauten Lautsprecher (B).

Die **Fig.** 2 zeigt das Notfunktelefon mit ausgeklappter Antenne und Telefon.

Dieses Notfunktelefon ist klein genug, um es mit einem Lederarmband oder einem Klettverschluss am rechten Innenarm zu tragen und die Antenne beim Telefonieren dann in Richtung Ellenbogen auszuklappen.

Die **Fig.** 3 zeigt eine mögliche Netzstruktur für Notfunktelefonsysteme. Bei dieser Netzstruktur ist eine aktive Beteiligung des Netzbetreibers (C; D1, D2, E) nicht notwendig. Eine Reihe von Notfunktelefonen (A–E) werden mobil von verschiedenen Personen getragen. Keines der Geräte ist normalerweise angeschaltet. Wenn wie in der **Fig.** 1 dargestellt ist, bei dem Notfunktelefon (A) die Antenne mit eingebautem Mikrofon ausgeklappt wird, schaltet sich das Gerät ein und stellt eine Verbindung zu dem Funknetz (NB) her und loggd sich ein. Dabei muß in der Regel jedes Notfunktelefon; wie auch normale Mobil Telefone, eine Codierung senden, die normalerweise auf den Telefonkarten bzw., in den darauf vorhandenen Chips gespeichert sind, die den Kunden den Zugang zu den jeweiligen Netzen ermöglichen. Bei diesem Notfunktelefonsystem wird von den Netzbetreibern der Code für eine Reihe von Zugangsberechtigungen erworben und so in die Notfunktelefone eingebaut, daß diese Codes automatisch nacheinander gesendet werden, bis eine Verbindung mit dem jeweiligen Funknetz hergestellt wird. Die Notfunktelefone wählen nach dem Zustandekommen einer Verbindung zu den Funknetzen eine oder nacheinander mehrere vorprogrammierte Telefonnummern, bis zu einem dieser Telefonnummern eine Verbindung hergestellt ist. Diese Telefonnummern entsprechen in der **Fig.** 3 einem Mobiltelefon (NM) und dieses Mobiltelefon ist an eine (VE) angeschlossen. Diese Vermittlungszentrale (VE) registriert eine nach Herstellung der Verbindung von jedem Notfunktelefon ausgesandten individuellen Kennung und anhand dieser Kennung wird dann die von dem Notfunktelefon gewünschte telefonische Verbindung hergestellt, d. h. die angemeldeten Nummern nacheinander gewählt, bis der den Notruf aussendende eine der Verbindungen hat, die vorher vereinbart worden sind. In dem Fall in der **Fig.** 3 ist die Nummer NA anzuwählen. Bei einem Notruf von Notfunktelefon B wäre es die Nummer und Verbindung NB gewesen.

In einer Alternative zu diesem Konzept zeigt die **Fig.** 4. Hierbei wird davon ausgegangen daß der Netzbetreiber einen generellen Zugangscode für Notfunktelefone einrichtet und sich so alle Notfunktelefone über den gleichen Code in das Netz (NB) einloggen können. Der Netzbetreiber analysiert die nach wie vor notwendige Kennung des einzelnen Notfunktelefons und veranlaßt die automatische Rufweiterleitung über eine Vermittlungszentrale (VE) zu den jeweils von den einzelnen Anrufern angemeldeten Nummern.

Patentansprüche

1. Vorrichtung und Verfahren für ein Notfunktelefonsystem, **dadurch gekennzeichnet**, daß Funktelefone verwendet werden, die nur ein oder wenige eine Taste haben, mit der eine einzige oder wenige Nummern direkt gewählt werden.
2. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach Anspruch 1, dadurch gekennzeichnet, daß als Bedienelement eine Taste benutzt wird oder die Antenne (AM) des Funktelefons (A) oder das Mikrofon oder beides gleichzeitig aus dem Notfunktelefon ausgeklappt oder ausgezogen werden und dadurch das Funktelefon eingeschaltet wird und automatisch eine Verbindung hergestellt wird.
3. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach Anspruch 1 oder 2 dadurch gekennzeichnet, daß eine größere Anzahl von Notfunktelefonen

(A–E) über gemeinsame Nummern bzw. Telefonkarten eines der bestehenden Mobiltelefonsysteme betrieben werden und daß Notrufe sich unter einer gemeinsamen oder mehreren Nummern in das Netz (NB) einloggen und daß nach dem Zustandekommen der Verbindung eine Kennung von jedem einzelnen Notfunktelefon gesendet wird und über die angerufene Nummer eine entsprechende Rufweiterleitung (VE) zu den vorher für jedes Notruftelefon vorgesehenen Telefonnummern (NA–NE) durchgeführt wird.

4. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß die Wahl der Nummern über die Netzbetreiber automatisch nach dem Einschalten und Einloggen des Notfunktelefons erfolgt und ggf. mehrere Nummern die vom Nutzer beantragt worden sind nacheinander angewählt werden, bis eine Verbindung hergestellt werden kann.

5. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Notfunktelefon ein Europiepsersignal empfangen kann und ein akustisches Signal den Träger auffordert, es einzuschalten, oder daß das Signal das Notfunktelefon von selbst einschaltet.

6. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche, dadurch gekennzeichnet, daß das Funktelefon nur Gespräche einer festgelegten Dauer zuläßt.

7. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche, dadurch gekennzeichnet, daß das Telefon nach vorgegebenen Zeiten automatisch eine Verbindung herstellt und dabei eine besondere Nummer des Netzwerkbetreibers anwählt, bei der die Anzurufenden ihren Wunsch anmelden können von dem Notruftelefon aus angerufen zu werden und wenn dies der Fall ist durch ein akustisches oder optisches Signal an dem Notfunkgerät signalisiert wird, daß ein Anruf ausgelöst werden soll.

8. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon wassergeschützt oder und gegen Stoß und Schlag geschützt ist.

9. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon farbig gestaltet ist und in Farmen von Teddybären oder anderen kindergerechten Design hergestellt wird.

10. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon am Gürtel getragen werden kann.

11. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon an einem Band am Hals getragen werden kann und dieses Band eine Sollbruchstelle hat an der es bei starkem Zug abreißt.

12. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon am Arm getragen werden kann.

13. Vorrichtung und Verfahren für ein Notfunktelefonsystem nach einem oder mehreren der vorgenannten Ansprüche dadurch gekennzeichnet, daß das Funktelefon mit einem Klettband an einem auf der Kleidung aufgenähten oder aufgebügelten Klettband angeheftet werden kann.

Hierzu 2 Seite(n) Zeichnungen

Nummer: **DE 196 25 581 C2**
Int. Cl.[7]: **G 08 B 25/10**
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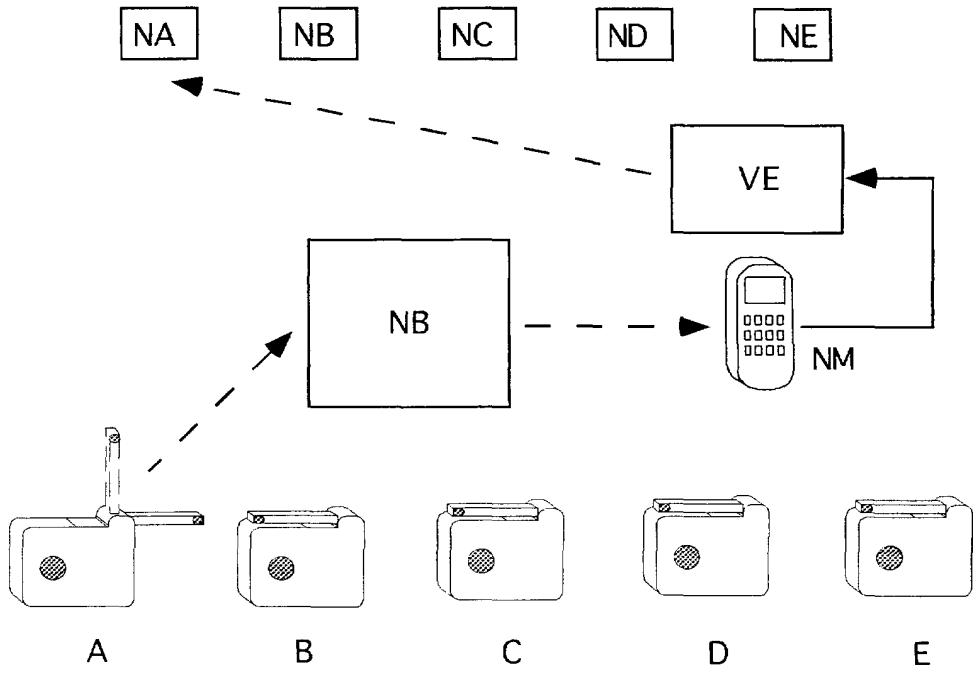

Fig. 3

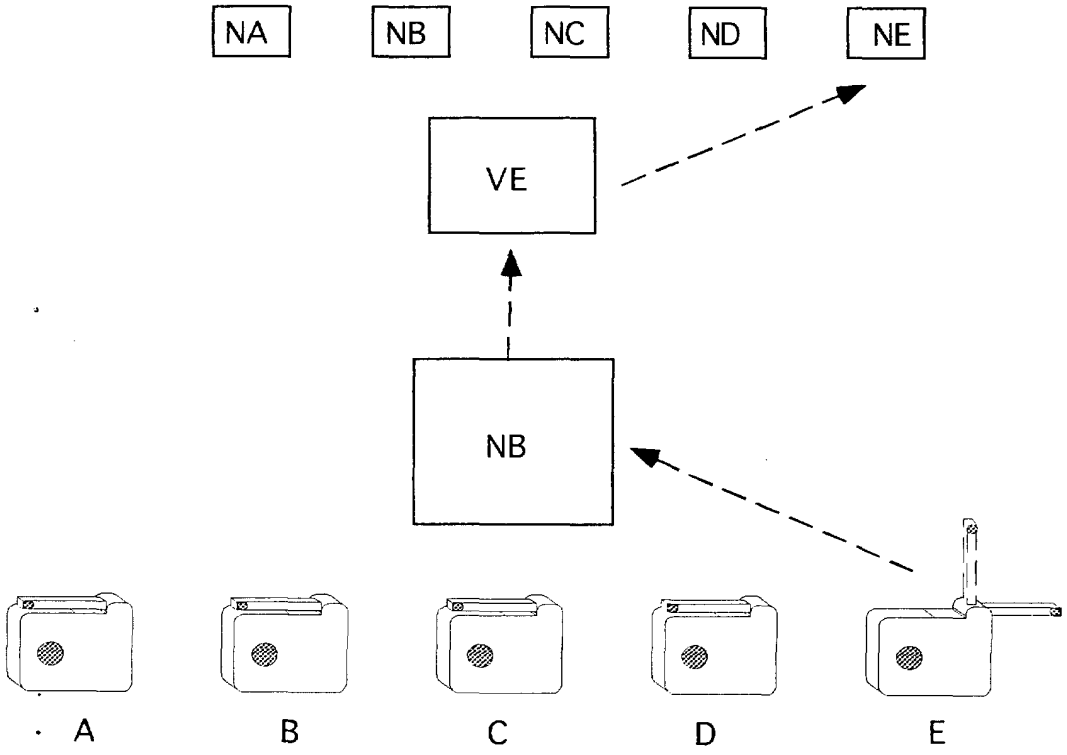

Fig. 4

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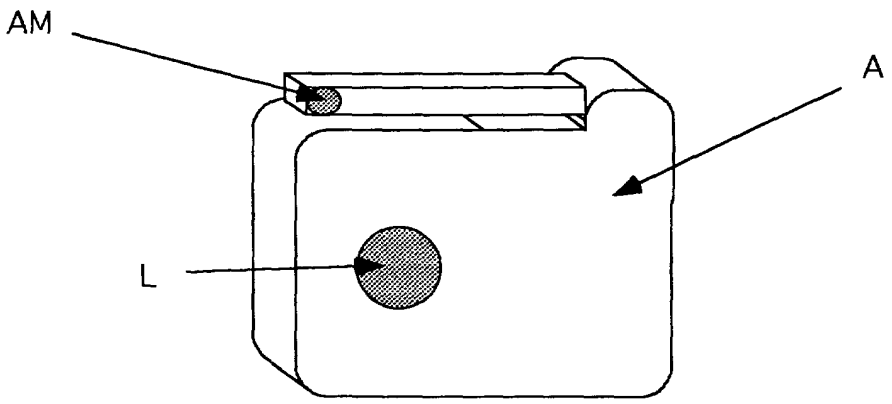

Fig. 1

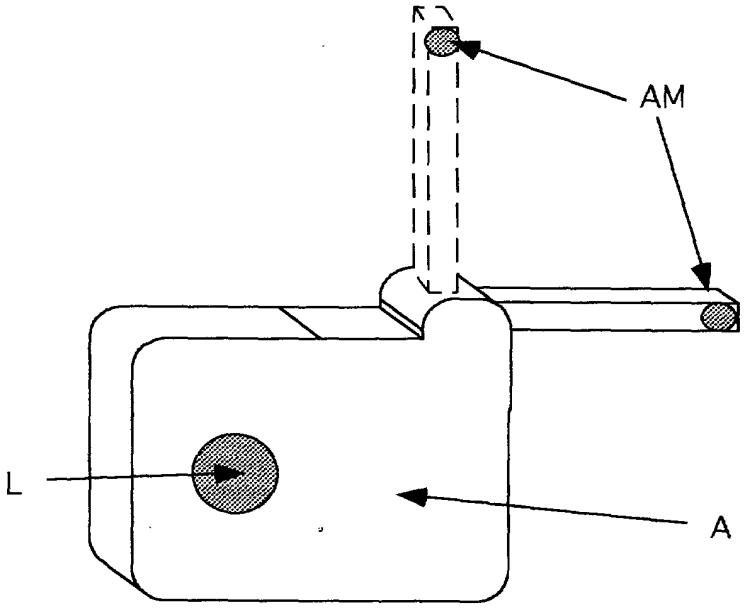

Fig. 2

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(54) EMERGENCY MOBILE RADIO TELEPHONE WITH REDUCED KEY SET

MOBILES NOTRUFTELEFON MIT VERRINGERTEM TASTENSATZ

RADIOTELEPHONE MOBILE D'URGENCE A COMMUNICATIONS RESTREINTES

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- **PATENT ABSTRACTS OF JAPAN vol. 097, no. 007, 31 July 1997 & JP 09 064950 A (HITACHI LTD), 7 March 1997**

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Description

BACKGROUND OF THE INVENTION

[0001] The invention relates to a portable communicating apparatus. More particularly, it relates to a portable communicating hot link apparatus which can provide a simple, efficient and effective means of communication between children and their parents, between elderly persons and caring relatives, and between mentally less-able individuals and supervising adults.

[0002] Children often disappear from view from parents causing anxiety and worry until their whereabouts is known again. Mobile telephone technology, such as GSM, DCS, and CDMA can provide an essential link between older children and their parents, but this is not the answer for younger children, elderly persons, or mentally less-able individuals. The mobile telephone is very valuable and might easily be lost or stolen from a child or from a mentally less-able individual. Similarly, elderly citizens may experience distress should they become lost in a crowd or lose sight of a supervising adult. In all these instances, children, mentally less able individuals, and elderly persons would quite likely experience difficulty in pressing the right sequence of keys on the mobile telephone, particularly if it were dark or in instances of bad weather.

[0003] Elderly persons often make appointments to meet supervising adults, such as their grown up children, but due to the fast commotion of life, they may miss the particular agreed meeting point or they may forget the time of the meeting. There is clearly a need for a communicating device which can address the communication technology requirements of this situation.

[0004] Current mobile phone technology products do not offer a very simple and cheap technology solution which addresses this essential one-to-one communication need.

[0005] In addition to these specific communication problem needs, there is a growing concern about the potentially harmful effect of electromagnetic radiation upon the developing brains of young children. Within this context, there is an opportunity to design a communication device for children which positions the radiating electromagnetic field of a communication device away from the close proximity of the brain. In this regard, parents who maintain the belief that mobile telephones present a health risk due to the radiating antenna, may rest secure in the knowledge that this risk can be significantly reduced.

[0006] Further to these limitations of existing technologies, and so far as is known, no portable communication apparatus is presently available which serves to offer a hot link communicator comprising the minimum mobile telephone functionality suited to the specific needs of this problem area.

[0007] The EP-A-0772336 document to Staeuly Alfred discloses an easy-to-handle digital portable telephone comprising a simple array of press pad to initiate a pre-programmed unique subscriber telephone number and to answer an incoming call. The device comprises a limited number of buttons, each to call only one telephone number. This portable telephone is to link exclusively a supervisor (mother) and her children. Therefore the portable telephone has stored in an internal read only memory (ROM) the ID code of authorised correspondents. All incoming telephone numbers are compared with the stored telephone numbers. These stored numbers are only changeable by removing and changing that ROM thereby rendering the said portable telephone secure.

[0008] The EP-A-0524652 document from Ransome Industries discloses a programmable dialler for a cellular telephone that comprises a plurality of telephone numbers in its memory, which it can call with a limited number of keys. Those telephone numbers are programmed by the manufacturer or by a licensed programmer and the device must be returned to the manufacturer or to the licensed programmer for it to be reprogrammed.

[0009] In both cases, the cellular telephone must be returned to a programming place in order to be reprogrammed any time when it is desired to change the authorised correspondents. The problem with those cellular apparatuses is their lack of versatility and flexibility in the programming of stored subscriber numbers allowed to communicate with them. This problem is solved in the invention by allowing a linked mobile telephone comprising the same type of identity module to reprogram said stored numbers to link the device to any fixed or mobile phone. Therefore the invention allows a much greater versatility, flexibility and ease-of-use and also renders the programmable Hot Link communicator very secure.

OBJECTS OF THE INVENTION

[0010] Accordingly, it is an object of the present invention to provide a novel portable hot link communicating apparatus to meet the minimum specific requirements of parents wishing to have the facility of immediate communication with their children, between mentally less-able individuals and supervising adults, and between elderly persons and caring relatives.

[0011] It is a further object of the present invention to provide a novel portable hot link communicating apparatus which comprises a preprogrammed identity module comprising the number of the mobile or fixed telephone to which the hot link communicating device is linked.

[0012] It is a further object of the present invention to provide a novel portable hot link communicating apparatus which may comprise no key pad at all, other than a simple array of press pads to initiate a call or to answer an incoming call thereby minimising cost and functionality of the said communication apparatus.

[0013] It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which may comprise no display thereby minimising cost and functionality of the said communication apparatus.

[0014] It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which comprises a simple and effective way of attaching it to the wearer such as a wrist strap, a hip belt clip, or a neck cord. In this context, it is a further object of the invention to provide a portable hot link communicating apparatus which may function effectively while worn on the wrist such that the electromagnetic field of the radiating antenna is positioned away from the close proximity of the developing brains of young children while a call is in progress.

[0015] It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which may be moulded in any of a number of bright colours and designs which are attractive to young children and which are therefore readily worn by said children.

[0016] It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which makes use of state of the art battery technology such that the hot link communicating device may be powered by a light-weight, low volume rechargeable battery with sufficient power to remain active for 24 hours.

[0017] Other objects and advantages of this invention will become apparent from the description to follow when read in conjunction with the accompanying drawings.

BRIEF SUMMARY OF THE INVENTION

[0018] Certain of the foregoing and related objects are readily-attained according to the present invention by the provision of a novel portable communicating apparatus or hot link communicator which serves to address the diverse requirements of communication between parents and children, between supervising adults and mentally less-able individuals, and between elderly persons and caring relatives.

[0019] The hot link communicator preferably comprises a basic mobile telephone circuit having no key pad or display and a rechargeable battery and antenna and a preprogrammed identity module linking it to a single mobile or fixed telephone. Where appropriate, in an alternative embodiment the hot link communicator is able to place a call to one of a plurality of separate telephone numbers comprising mobile telephones, fixed telephones or other hot link communicators. In one embodiment in which the hot link communicator is able to select one of two numbers, an additional separate call button is provided for this purpose. In an alternative embodiment, selection of one of a plurality of numbers is done using the single call initiate button and by sequentially stepping through the numbers stored in the preprogrammed identity module. The indication of which number is being selected can be shown on the screen of the hot link communicator in a number of embodiments; alternatively one of a number of coloured lights may be programmed to light up to avoid the expense of the screen.

[0020] To all extents and purposes, the hot link communicator, works identically as a mobile telephone when it is active and receives a call. It differs from the complexity of a mobile telephone in that it comprises no key pad, and in its place, it comprises the circuitry to dial a number preprogrammed into its identity module.

[0021] The linked mobile telephone, or any mobile telephone comprising the same type of identity module, is thus easily employed to preprogram the unique number of any mobile or fixed telephone to which the hot link communicator is to be linked. This programming feature offers a significant degree in freedom in linking any particular hot link communicator with any particular mobile or fixed telephone. Furthermore, the same method may be employed to program two identity modules and thereby link two hot link communicators to each other.

[0022] Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawings which disclose one embodiment of the invention. It is to be understood, however, that the drawings are designed for the purpose of illustration only and that the particular description of the portable hot link communicating apparatus is given by way of example only and does not limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023]

FIG. 1 is an illustration of one embodiment of the portable hot link communicating apparatus.

FIG. 2 is an illustration of the use of the hot link communicator within the context of the mobile telephone network.

FIG. 3 is a circuit block schematic indicating the necessary functional components of the hot link communicating apparatus.

FIG.4 comprises a schematic of a number of hot link mould shapes that may be used to maximise the acceptability of the product to children and adults.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0024] Referring now in detail to the drawings and in particular FIG. 1 thereof, therein illustrated is a portable hot link communicating apparatus embodying the present invention.

[0025] This device comprises a novel combination of existing technologies and features which make possible the existence of a new and improved portable hot link

communicating apparatus to address the needs of parents wishing to have the facility of immediate communication with their children and vice versa, between supervising individuals and mentally less-able persons, and between elderly persons and caring relatives.

[0026] Furthermore this novel hot link communicator is able to receive and send calls to a preprogrammed mobile or fixed telephone by making use of simplified circuitry to select and call at least one number programmed into the identity module associated with the hot link communicator.

[0027] This unique combination of features greatly simplifies the hot link communicator circuitry and thereby reduces the cost of the device.

[0028] In a preferred embodiment, the invention is suitably employed within any specific mobile telephone system such as GSM, DCS, and CDMA. For the purpose of detailed description and in order to make clear the advantages and benefits of the hot link communicator, the particular embodiment of the GSM standard of mobile telephone technology is selected. Furthermore, the corresponding identity module within the GSM standard of mobile telephone technology, the subscriber identity module, or SIM card is described. This selection of GSM is made by way of example only and does not limit the scope of the invention to the GSM standard since it is obviously and suitably adapted to DCS and CDMA telephone technologies by making the corresponding and obvious technical modifications to the hot link communicator circuitry.

[0029] In the preferred embodiment, the essential hardware components comprise a basic GSM telephone circuit, a rechargeable battery, a compact GSM antenna, a brightly coloured moulding, in the instance that it is intended for children, a preprogrammed SIM card, and two buttons: one to initiate a telephone call, the other to answer an incoming call, and a ringing tone generator as well as a basic two way microphone device.

[0030] With particular reference to FIG. 1 there is shown an illustration of one embodiment of the portable hot link communicating apparatus. The hot link communicator 10 comprises a wrist strap 12, a call button 14, and a call receive button 16. The optional central display 18 may comprise a digital watch and possibly some indication of the coverage level, as is standard in the display of mobile telephones. In a further embodiment the display 18 may indicate who is calling, in the instance that this is preprogrammed into the identity module. Furthermore, in a further embodiment, the display 18 can be used to indicate to which one of a plurality of stored telephone numbers the hot link communicator can initiate a call, in which case a particular sequence of key presses can be programmed to step through the list of stored numbers.

[0031] FIG. 2 shows an illustration of the ease of use of the hot link communicator within the context of mobile telephone technology.

[0032] FIG. 3 shows a circuit block schematic indicating the necessary functional components of the hot link communicating apparatus according to one embodiment based on the standard schematic for GSM. The hot link communicator differs from the standard GSM telephone circuit in that the circuit has no keypad for entering numbers and in its place it makes use of a simplified button for automatically calling a number in the preprogrammed Identity Module.

[0033] FIG.4 shows a number of possible shapes of the hot link communicator into which the plastic housing could be moulded to make the communicator most acceptable to children.

[0034] The hot link communicator is intended to provide an emergency telephone connection using the simplest combination of technologies in a new and unique way. It is intended that the hot link communicator may contain levels of sophistication to suit different specific needs of individuals. As has been stated before, the hot link communicator may comprise a screen display. In addition, the hot link communicator may comprise the capability to initiate telephone calls to one of a number of telephone numbers stored in the preprogrammed identity module. In GSM this preprogrammed identity module is described as the SIM card or Subscribers Identity Module. Nevertheless, the SIM card is only mentioned by way of example and the invention is not limited to this particular module and any circuitry may be devised to achieve the necessary functionality of the hot link communicator pre-programed identity module.

[0035] In one alternative embodiment, the hot link communicator is able to select one of a plurality of numbers stored in the preprogrammed identity module. This can be realised in a number of ways such as programming the call initiate button 14 to toggle through the list of stored numbers wherein each is sequentially displayed on the screen. Alternatively, a number of coloured lights may be used to indicate from whom a call is being received or to whom a call is about to be initiated wherein one particular coloured light corresponds to a particular telephone number stored on the preprogrammed identity module. The use of coloured lights may serve to be advantageous when the hot link communicator is to be used by a young child who is unable to recognised alphanumeric text on a screen display.

[0036] While only one embodiment of the present invention: the hot link communicator within the context of the digital GSM telephone system in particular, has been shown and described in detail, it will be obvious to those persons of ordinary skill in the art, that many changes and modifications may be made thereunto without departing from the invention. For example, the hot link communicator may make use of any telephone technology such as CDMA, and DCS. Furthermore the hot link communicator may be stored in a battery recharging device when not worn such that it remains available for use when needed.

Claims

1. A portable hot link communicator (10) comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, a simplified array of press pads (14, 16), a programmable identity module comprising at least one unique subscriber telephone number wherein at least one button (14) of said simplified array of press pads automatically initiates a call of a unique subscriber telephone number from said pre-programmed identity module is **characterised in that**:

   the portable hot link communicator (10) is adapted to be preprogrammed by any linked mobile telephone (fig.2) comprising the same type of identity module with said at least one unique subscriber telephone number in order to link said portable hot link communicator (10) to any particular mobile or fixed telephone.

2. A portable hot link communicator (10) according to claim 1 wherein said linked mobile phone pre-programming said programmable identity module of said hot link communicator (10) to be linked to another portable hot link communicator (10).

3. A portable hot link communicator (10) according to claim 1 or 2 for use in a mobile telephone system wherein said mobile telephone system being the Global System for Mobile telecommunication (GSM) or is a Code Division Multiple Access system (CDMA).

4. A portable hot link communicator (10) according to claim 1 or 2 wherein said programmable identity module is a Subscriber Identity Module (SIM).

5. A portable hot link communicator (10) according to claim 3 or 4 wherein said simplified array of press pads comprises only two buttons (14, 16),

   a first button (14) to initiate a call of a pre-programmed number from said identity module comprising a unique subscriber telephone number and

   a second button (16) to answer an incoming call.

6. A portable hot link communicator (10) according to claims 3-5 further **characterised in that** said portable hot link communicator (10) comprises a screen display (18).

7. A portable hot link communicator (10) according to claim 6 wherein said screen display (18) further comprises a digital watch and/or some indications of the coverage level.

8. A portable hot link communicator (10) according to claims 6 or 7 wherein a particular sequence of key presses are programmed to step in the list of said stored pre-programmed unique subscriber telephone numbers or

   the call initiate button is programmed to toggle through the list of stored pre-programmed unique subscriber telephone numbers.

9. A portable hot link communicator (10) according to claim 8 comprising coloured lights.

10. A portable hot link communicator (10) according to claim 9 further comprising a brightly coloured moulding and/or a wrist strap or a neck strap or a belt clip.

11. A method for initiating a call from a portable hot link communicator (10) comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, a simplified array of press pads (14, 16) to initiate a pre-programmed unique subscriber telephone number and to answer an incoming call, a programmable identity module comprising at least one unique subscriber telephone number wherein at least one button (14) of said simplified array of press pads automatically initiates a call of a unique subscriber telephone number from said pre-programmed identity module, the method comprising the step of:

    pre-programming said programmable identity module with said at least one unique subscriber telephone number by means of any linked mobile telephone (fig. 2) comprising the same type of identity module in order to link said portable hot link communicator (10) to any particular mobile or fixed telephone.

12. The method for initiating a call from a portable hot link communicator (10) in a telephone system according to claim 11 wherein said telephone system is GSM and said Programmable Identity Module is a Subscriber Identity Module (SIM).

13. The method for initiating a call from a portable hot link communicator (10) in a telephone system according to claim 11 or 12 wherein said programmable identification module is pre-programmed by a linked mobile phone comprising the same type of subscriber identification module (SIM).

14. The method for initiating a call from a portable hot

link communicator (10) in a telephone system according to claim 13 further comprising the steps of:

selecting a button (14) from said simplified array of press pads,
pressing said selected button (14) in order to initiate a call of a unique pre-programmed number from said Programmable identity Module.

15. The method for initiating a call from a portable hot link communicator (10) in a telephone system according to claim 14 further comprising the steps of:

selecting a specific button (14) from said simplified array of press pads,
pressing said selected button (14) in order to display a stored pre-programmed unique subscriber telephone number on a screen display (18),
stepping in the list of said stored pre-programmed unique subscriber telephone numbers by repeatedly pressing said specific button,
selecting one of said numbers from said list,
maintaining pressed said button (14) or another button from said simplified array of press pad for a few seconds in order to initiate the call of said unique stored pre-programmed number from said Programmable Identity Module.

16. The method for initiating a call from a portable hot link communicator (10) in a telephone system according to claim 15 further comprising the steps of:

switching or flashing on a coloured light from at least one of a number of coloured lights corresponding to said unique telephone number.

17. A method for answering an incoming call at a portable hot link communicator (10) comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, a simplified array of press pads (14, 16) to initiate a pre-programmed unique subscriber telephone number and to answer an incoming call from a pre-programmed unique subscriber telephone number, a programmable identity module comprising at least one unique subscriber telephone number wherein at least one button (14) of said simplified array of press pads automatically initiates a call of a unique subscriber telephone number from said pre-programmed identity module, the method comprising the steps of:

pre-programming said programmable identity module with said at least one unique subscriber telephone number by means of any linked mobile telephone (fig. 2) comprising the same type of identity module in order to link said portable hot link communicator (10) to any particular mobile or fixed telephone.

18. The method for answering an incoming call at a portable hot link communicator (10) in a telephone system according to claim 17 wherein said telephone system is GSM and said Programmable Identity Module is a Subscriber Identity Module (SIM).

19. The method for answering an incoming call at a portable hot link communicator (10) according to claim 17 or 18 further comprising the steps of:

indicating that call is coming by the ringing tone generator of said portable hot link communicator (10),
pressing a specific button (16) from said simplified array of press pads,
communicating through said two-way microphone device.

20. The method for answering an incoming call at a portable hot link communicator (10) according to claim 19 wherein the step of indicating a call includes:

switching or flashing on a coloured light from at least one of a number of coloured lights corresponding to said received telephone call.

21. The method for answering an incoming call at a portable hot link communicator (10) according to claim 19 or 20 further comprising the step of:

displaying which one of a plurality of said stored pre-programmed unique subscriber telephone numbers is calling on a screen display (18).

Patentansprüche

1. Tragbare Heißverbindungskommunikationseinrichtung (10), umfassend eine digitale Mobiltelefonschaltung, eine wiederaufladbare Batterie, eine Kompaktantenne, einen Klingeltongenerator, eine Zweiwegmikrofongrundvorrichtung zum Bereitstellen der Möglichkeit einer verzögerungsfreien Kommunikation oder Notrufverbindung, eine vereinfachte Drucktastenanordnung (14, 16), ein programmierbares Identifizierungsmodul, das wenigstens eine eindeutige Teilnehmertelefonnummer umfasst, wobei wenigstens ein Knopf (14) der genannten vereinfachten Drucktastenanordnung au-

tomatisch einen Anruf einer eindeutigen Teilnehmertelefonnummer von dem genannten vorprogrammierten Identifizierungsmodul aus einleitet, **dadurch gekennzeichnet, dass**:

die tragbare Heißverbindungskommunikationseinrichtung (10) zum Voreinprogrammieren der genannten wenigstens einen eindeutigen Teilnehmertelefonnummer mit einem beliebigen angeschlossenen Mobiltelefon (Fig. 2), das den gleichen Identifizierungsmodultyp umfasst, ausgeführt ist, um die genannte tragbare Heißverbindungskommunikationseinrichtung (10) mit einem beliebigen Mobil- oder Festnetztelefon zu verbinden.

2. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 1, bei der das genannte angeschlossene Mobiltelefon das genannte programmierbare Identifizierungsmodul der genannten Heißverbindungskommunikationseinrichtung (10) vorprogrammiert, die mit einer weiteren tragbaren Heißverbindungskommunikationseinrichtung (10) zu verbinden ist.

3. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 1 oder 2 zur Verwendung in einem Mobiltelefonsystem, bei der das genannte Mobiltelefonsystem das Globale System für Mobiltelekommunikation (GSM) oder ein System nach dem Verfahren Code Division Multiple Access (CDMA) ist.

4. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 1 oder 2, bei der das genannte programmierbare Identifizierungsmodul eine SIM-Karte (Subscriber Identity Module) ist.

5. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 3 oder 4, bei der die genannte vereinfachte Drucktastenanordnung nur zwei Knöpfe (14, 16) umfasst,

einen ersten Knopf (14) zum Einleiten eines Anrufs einer voreinprogrammierten Nummer von dem genannten Identifizierungsmodul aus, die eine eindeutige Teilnehmertelefonnummer umfasst, und

einen zweiten Knopf (16) zum Beantworten eines ankommenden Anrufs.

6. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 3 bis 5, ferner **dadurch gekennzeichnet, dass** die genannte tragbare Heißverbindungskommunikationseinrichtung (10) eine Bildschirmanzeige (18) umfasst.

7. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 6, bei der die genannte Bildschirmanzeige (18) ferner eine Digitaluhr und/oder einige Anzeigen des Versorgungsgrads umfasst.

8. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 6 oder 7, bei der eine spezielle Tastenbetätigungssequenz zum Weiterrükken in der Liste der genannten gespeicherten voreinprogrammierten eindeutigen Teilnehmertelefonnummern programmiert ist oder

der Rufeinleitungsknopf zum Schalten durch die Liste gespeicherter voreinprogrammierter eindeutiger Teilnehmertelefonnummern programmiert ist.

9. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 8, umfassend farbige Leuchten.

10. Tragbare Heißverbindungskommunikationseinrichtung (10) nach Anspruch 9, die ferner ein farbenfrohes Formteil und/oder ein Armband oder ein Umhängeband oder einen Gürtelclips. umfasst.

11. Verfahren zum Einleiten eines Anrufs von einer Heißverbindungskommunikationseinrichtung (10) aus, umfassend eine digitale Mobiltelefonschaltung, eine wiederaufladbare Batterie, eine Kompaktantenne, einen Klingeltongenerator, eine Zweiwegmikrofongrundvorrichtung zum Bereitstellen der Möglichkeit einer verzögerungsfreien Kommunikation oder Notrufverbindung, eine vereinfachte Drucktastenanordnung (14, 16) zum Einleiten einer voreinprogrammierten eindeutigen Teilnehmertelefonnummer und zum Beantworten eines ankommenden Anrufs, ein programmierbares Identifizierungsmodul, das wenigstens eine eindeutige Teilnehmertelefonnummer umfasst, wobei wenigstens ein Knopf (14) der genannten vereinfachten Drucktastenanordnung automatisch einen Anruf einer eindeutigen Teilnehmertelefonnummer von dem genannten vorprogrammierten Identifizierungsmodul aus einleitet, wobei das Verfahren den folgenden Schritt umfasst:

Voreinprogrammieren der genannten wenigstens einen eindeutigen Teilnehmertelefonnummer in das genannte programmierbare Identifizierungsmodul mithilfe eines beliebigen angeschlossenen Mobiltelefons (Fig. 2), das den gleichen Typ von Identifizierungsmodul umfasst, um die genannte tragbare Heißverbindungskommunikationseinrichtung (10) mit einem bestimmten Mobil- oder Festnetztelefon zu verbinden.

12. Verfahren zum Einleiten eines Anrufs von einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem aus nach An-

spruch 11, bei dem das genannte Mobiltelefonsystem GSM und das genannte programmierbare Identifizierungsmodul eine SIM-Karte (Subscriber Identity Module) ist.

13. Verfahren zum Einleiten eines Anrufs von einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem aus nach Anspruch 11 oder 12, bei dem das genannte programmierbare Identifizierungsmodul mit einem angeschlossenen Mobiltelefon vorprogrammiert wird, das den gleichen Typ von SIM-Karte (Subscriber Identity Module) umfasst.

14. Verfahren zum Einleiten eines Anrufs von einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem aus nach Anspruch 13, das ferner die folgenden Schritte umfasst:

Auswählen eines Knopfes (14) aus der genannten vereinfachten Drucktastenanordnung,
Drücken des genannten ausgewählten Knopfes (14), um einen Anruf einer eindeutigen voreinprogrammierten Nummer von dem programmierbaren Identifizierungsmodul aus einzuleiten.

15. Verfahren zum Einleiten eines Anrufs von einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem aus nach Anspruch 14, das ferner die folgenden Schritte umfasst:

Auswählen eines spezifischen Knopfes (14) aus der genannten vereinfachten Drucktastenanordnung,
Drücken des genannten ausgewählten Knopfes (14), um eine gespeicherte voreinprogrammierte eindeutige Teilnehmertelefonnummer auf einer Bildschirmanzeige (18) anzuzeigen,
Weiterrücken in der Liste der genannten gespeicherten voreinprogrammierten eindeutigen Teilnehmertelefonnummern durch wiederholtes Drükken des genannten spezifischen Knopfes,
Auswählen einer der genannten Nummern aus der genannten Liste,
Gedrückthalten des genannten Knopfes (14) oder eines anderen Knopfes aus der genannten vereinfachten Drucktastenanordnung für einige Sekunden, um den Anruf der genannten eindeutigen gespeicherten voreinprogrammierten Nummer von dem genannten programmierbaren Identifizierungsmodul aus einzuleiten.

16. Verfahren zum Einleiten eines Anrufs von einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem aus nach Anspruch 15, das ferner die folgenden Schritte umfasst:

Einschalten oder Blinken einer farbigen Leuchte von wenigstens einer von einer Anzahl von farbigen Leuchten entsprechend der genannten eindeutigen Telefonnummer.

17. Verfahren zum Beantworten eines ankommenden Anrufs an einer tragbaren Heißverbindungskommunikationseinrichtung (10), umfassend eine digitale Mobiltelefonschaltung, eine wiederaufladbare Batterie, eine Kompaktantenne, einen Klingeltongenerator, eine Zweiwegmikrofongrundvorrichtung zum Bereitstellen der Möglichkeit einer verzögerungsfreien Kommunikation oder Notrufverbindung, eine vereinfachte Drucktastenanordnung (14, 16) zum Einleiten einer voreinprogrammierten eindeutigen Teilnehmertelefonnummer und zum Beantworten eines ankommenden Anrufs von einer voreinprogrammierten eindeutigen Teilnehmertelefonnummer, ein programmierbares Identifizierungsmodul, das wenigstens eine eindeutige Teilnehmertelefonnummer umfasst, wobei wenigstens ein Knopf (14) der genannten vereinfachten Drucktastenanordnung automatisch einen Anruf einer eindeutigen Teilnehmertelefonnummer von dem genannten vorprogrammierten Identifizierungsmodul aus einleitet, wobei das Verfahren die folgenden Schritte umfasst:

Voreinprogrammieren der genannten wenigstens einen eindeutigen Teilnehmertelefonnummer in das genannte programmierbare Identifizierungsmodul mithilfe eines beliebigen angeschlossenen Mobiltelefons (Fig. 2), das den gleichen Typ von Identifizierungsmodul umfasst, um die genannte tragbare Heißverbindungskommunikationseinrichtung (10) mit einem bestimmten Mobil- oder Festnetztelefon zu verbinden.

18. Verfahren zum Beantworten eines ankommenden Anrufs an einer tragbaren Heißverbindungskommunikationseinrichtung (10) in einem Telefonsystem nach Anspruch 17, wobei das genannte Telefonsystem GSM und das genannte programmierbare Identifizierungsmodul eine SIM-Karte (Subscriber Identity Module) ist.

19. Verfahren zum Beantworten eines ankommenden Anrufs an einer tragbaren Heißverbindungskommunikationseinrichtung (10) nach Anspruch 17 oder 18, das ferner die folgenden Schritte umfasst:

Anzeigen durch den Klingeltongenerator der

genannten tragbaren Heißverbindungskommunikationseinrichtung (10), dass ein Anruf ankommt,
Drücken eines spezifischen Knopfes (16) aus der genannten vereinfachten Drucktastenanordnung,
Kommunizieren durch die genannte Zweiwegmikrofonvorrichtung.

20. Verfahren zum Beantworten eines ankommenden Anrufs an einer tragbaren Heißverbindungskommunikationseinrichtung (10) nach Anspruch 19, bei dem der Schritt des Anzeigens eines Anrufs Folgendes aufweist:

Einschalten oder Blinken einer farbigen Leuchte von wenigstens einer von einer Anzahl von farbigen Leuchten entsprechend der genannten eindeutigen Telefonnummer.

21. Verfahren zum Beantworten eines ankommenden Anrufs an einer tragbaren Heißverbindungskommunikationseinrichtung (10) nach Anspruch 19 oder 20, das ferner den folgenden Schritt umfasst:

Anzeigen auf einer Bildschirmanzeige (18), welche einer Mehrzahl der genannten gespeicherten voreinprogrammierten eindeutigen Teilnehmertelefonnummern anruft.

Revendications

1. Dispositif de communication portable à liaison directe (10) comprenant un circuit de téléphonie mobile numérique, une batterie rechargeable, une antenne compacte, un générateur de tonalité d'appel, un dispositif de microphone bidirectionnel élémentaire pour permettre une communication immédiate ou une connexion téléphonique d'urgence, un pavé simplifié de boutons-poussoirs (14, 16), un module d'identité programmable comprenant au moins un numéro de téléphone d'abonné unique, dans lequel au moins un bouton (14) dudit pavé simplifié de boutons-poussoirs lance automatiquement un appel d'un numéro de téléphone d'abonné unique à partir dudit module d'identité préprogrammé et **caractérisé en ce que** :

le dispositif de communication portable à liaison directe (10) est adapté pour être préprogrammé par n'importe quel téléphone mobile relié (figure 2) comprenant le même type de module d'identité avec ledit au moins un numéro de téléphone d'abonné unique afin de relier ledit dispositif de communication portable à liaison directe (10) à n'importe quel téléphone mobile ou fixe particulier.

2. Dispositif de communication portable à liaison directe (10) selon la revendication 1, dans lequel ledit téléphone mobile relié préprogramme ledit module d'identité programmable dudit dispositif de communication à liaison directe (10) pour le relier à un autre dispositif de communication portable à liaison directe (10).

3. Dispositif de communication portable à liaison directe (10) selon la revendication 1 ou 2 destiné à être utilisé dans un système de téléphonie mobile dans lequel ledit système de téléphonie mobile est un système GSM (Groupe spécial mobile) ou AMRT (à Accès multiple par différence de code).

4. Dispositif de communication portable à liaison directe (10) selon la revendication 1 ou 2, dans lequel ledit module d'identité programmable est un Module d'Identité d'Abonné (SIM).

5. Dispositif de communication portable à liaison directe (10) selon la revendication 3 ou 4, dans lequel ledit pavé simplifié de boutons-poussoirs ne comprend que deux boutons (14, 16),
un premier bouton (14) pour lancer un appel d'un numéro préprogrammé depuis ledit module d'identité comprenant un numéro de téléphone d'abonné unique et
un deuxième bouton (16) pour répondre à un appel entrant.

6. Dispositif de communication portable à liaison directe (10) selon les revendications 3 à 5, **caractérisé en outre en ce que** ledit dispositif de communication portable à liaison directe (10) comprend un écran d'affichage (18).

7. Dispositif de communication portable à liaison directe (10) selon la revendication 6, dans lequel ledit écran d'affichage (18) comprend en outre une montre numérique et/ou certaines indications de niveau de couverture.

8. Dispositif de communication portable à liaison directe (10) selon la revendication 6 ou 7, dans lequel une séquence particulière de pressions de boutons est programmée pour faire défiler la liste de numéros d'appel d'abonnés uniques préprogrammés mémorisés ou
le bouton de lancement d'appel est programmé pour parcourir la liste de numéros d'appel d'abonnés uniques préprogrammés mémorisés.

9. Dispositif de communication portable à liaison directe (10) selon la revendication 8, comprenant des témoins de couleur.

10. Dispositif de communication portable à liaison di-

recte (10) selon la revendication 9, comprenant en outre un moulage de couleur vive et/ou une dragonne ou une sangle ou un crochet de fixation à la ceinture.

11. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) comprenant un circuit de téléphonie mobile numérique, une batterie rechargeable, une antenne compacte, un générateur de tonalité d'appel, un dispositif de microphone bidirectionnel élémentaire pour permettre une communication immédiate ou une connexion téléphonique d'urgence, un pavé simplifié de boutons-poussoirs (14, 16) pour lancer un numéro de téléphone d'abonné unique préprogrammé et répondre à un appel entrant, un module d'identité programmable comprenant au moins un numéro de téléphone d'abonné unique, dans lequel au moins un bouton (14) dudit pavé simplifié de boutons-poussoirs lance automatiquement un appel d'un numéro de téléphone d'abonné unique à partir dudit module d'identité préprogrammé, le procédé comprenant l'étape de :

préprogrammation dudit module d'identité programmable avec ledit au moins un numéro de téléphone d'abonné unique au moyen de n'importe quel téléphone mobile relié (figure 2) comprenant le même type de module d'identité afin de relier ledit dispositif de communication portable à liaison directe (10) à n'importe quel téléphone mobile ou fixe particulier.

12. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 11, dans lequel ledit système téléphonique est un système GSM et ledit Module d'Identité programmable est un Module d'Identité d'Abonné (SIM).

13. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 11 ou 12, dans lequel ledit module d'identification programmable est préprogrammé par un téléphone mobile relié comprenant le même type de module d'identification d'abonné (SIM).

14. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 13, comprenant en outre les étapes de :

sélection d'un bouton (14) sur ledit pavé simplifié de boutons-poussoirs,
pression dudit bouton sélectionné (14) afin de lancer un appel d'un numéro préprogrammé unique à partir dudit Module d'Identité programmable.

15. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 14, comprenant en outre les étapes de :

sélection d'un bouton spécifique (14) sur ledit pavé simplifié de boutons-poussoirs,
pression dudit bouton sélectionné (14) afin d'afficher un numéro de téléphone d'abonné unique préprogrammé sur un écran d'affichage (18),
défilement de la liste desdits numéros d'appel d'abonné uniques préprogrammés mémorisés en appuyant de façon répétée sur ledit bouton spécifique,
sélection de l'un desdits numéros sur la liste,
maintien en position pressée dudit bouton (14) ou d'un autre bouton dudit pavé simplifié de boutons-poussoirs pendant quelques secondes afin de lancer l'appel dudit numéro préprogrammé mémorisé unique à partir dudit Module d'Identité programmable.

16. Procédé de lancement d'un appel depuis un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 15, comprenant en outre les étapes de :

commutation ou clignotement d'une lumière colorée d'au moins l'un d'un certain nombre de témoins colorés correspondant audit numéro téléphonique unique.

17. Procédé de réponse à un appel entrant au niveau d'un dispositif de communication portable à liaison directe (10) comprenant un circuit de téléphonie mobile numérique, une batterie rechargeable, une antenne compacte, un générateur de tonalité d'appel, un dispositif de microphone bidirectionnel élémentaire pour permettre une communication immédiate ou une connexion téléphonique d'urgence, un pavé simplifié de boutons-poussoirs (14, 16) pour lancer un numéro de téléphone d'abonné unique préprogrammé et répondre à un appel entrant depuis un numéro de téléphone d'abonné unique préprogrammé, un module d'identité programmable comprenant au moins un numéro de téléphone d'abonné unique, dans lequel au moins un bouton (14) dudit pavé simplifié de boutons-poussoirs lance automatiquement un appel d'un numéro de téléphone d'abonné unique à partir dudit module d'identité préprogrammé, le procédé comprenant les étapes de :

préprogrammation dudit module d'identité pro-

grammable avec ledit au moins un numéro de téléphone d'abonné unique au moyen de n'importe quel téléphone mobile relié (figure 2) comprenant le même type de module d'identité afin de relier ledit dispositif de communication portable à liaison directe (10) à n'importe quel téléphone mobile ou fixe particulier.

18. Procédé de réponse à un appel entrant au niveau d'un dispositif de communication portable à liaison directe (10) dans un système téléphonique selon la revendication 17, dans lequel ledit système téléphonique est un système GSM et ledit Module d'Identité programmable est un Module d'Identité d'Abonné (SIM).

19. Procédé de réponse à un appel entrant au niveau d'un dispositif de communication portable à liaison directe (10) selon la revendication 17 ou 18, comprenant en outre les étapes de :

signalisation qu'un appel arrive par le générateur de tonalité d'appel dudit dispositif de communication portable à liaison directe (10),
pression d'un appel spécifique (16) sur le pavé simplifié de boutons-poussoirs,
communication par ledit dispositif de microphone bidirectionnel.

20. Procédé de réponse à un appel entrant au niveau d'un dispositif de communication portable à liaison directe (10) selon la revendication 19, dans lequel l'étape de signalisation d'un appel comporte :

la commutation ou le clignotement d'une lumière colorée d'au moins l'un d'un certain nombre de témoins colorés correspondant audit numéro téléphonique reçu.

21. Procédé de réponse à un appel entrant au niveau d'un dispositif de communication portable à liaison directe (10) selon la revendication 19 ou 20, comprenant en outre l'étape :

d'affichage sur un écran d'affichage (18) du numéro appelant parmi une pluralité desdits numéros d'appel d'abonnés uniques préprogrammés mémorisés.

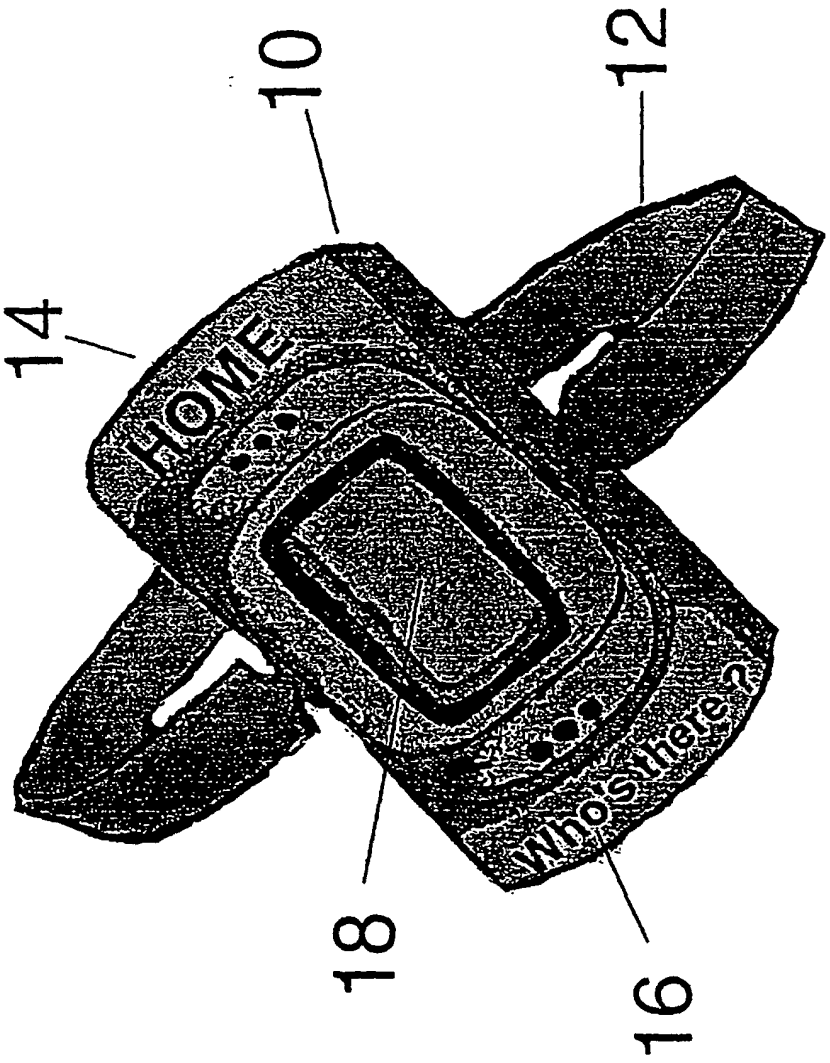


FIG.1

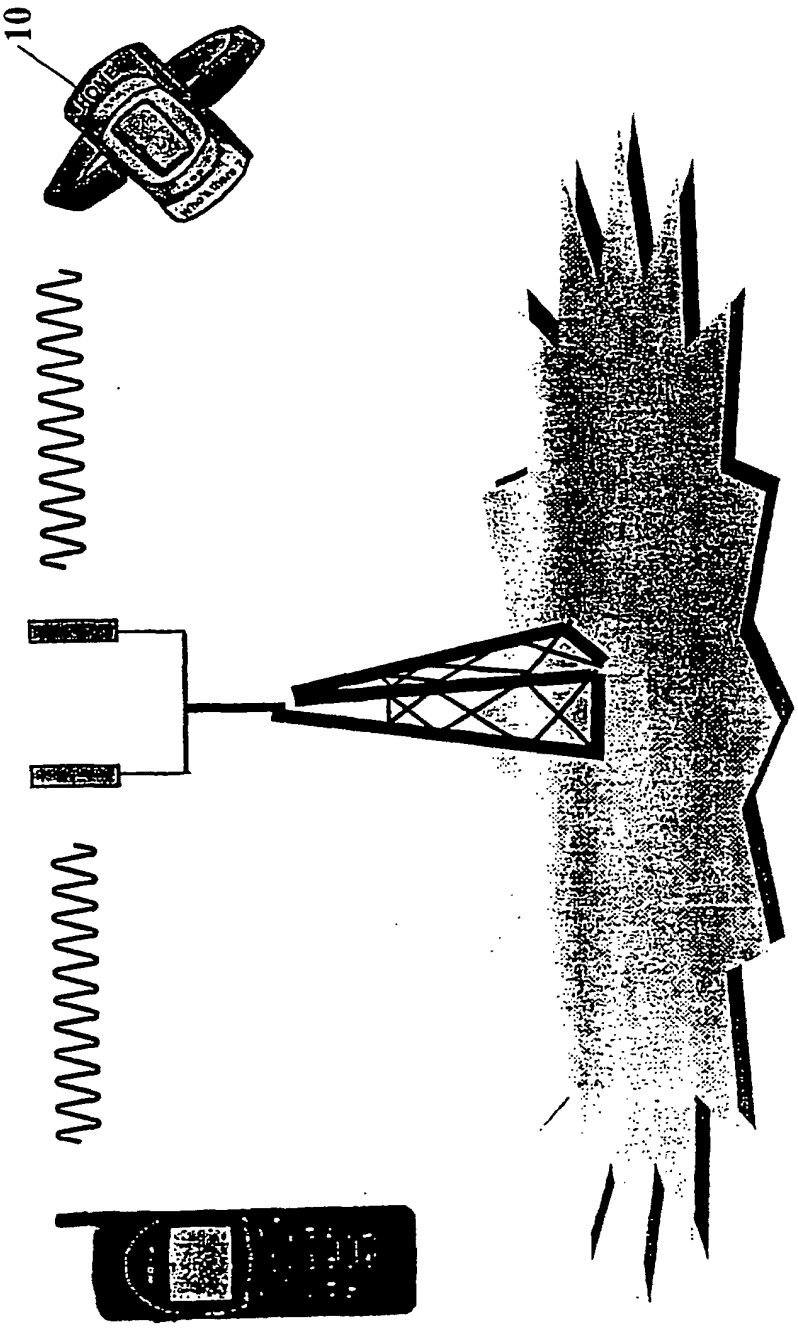
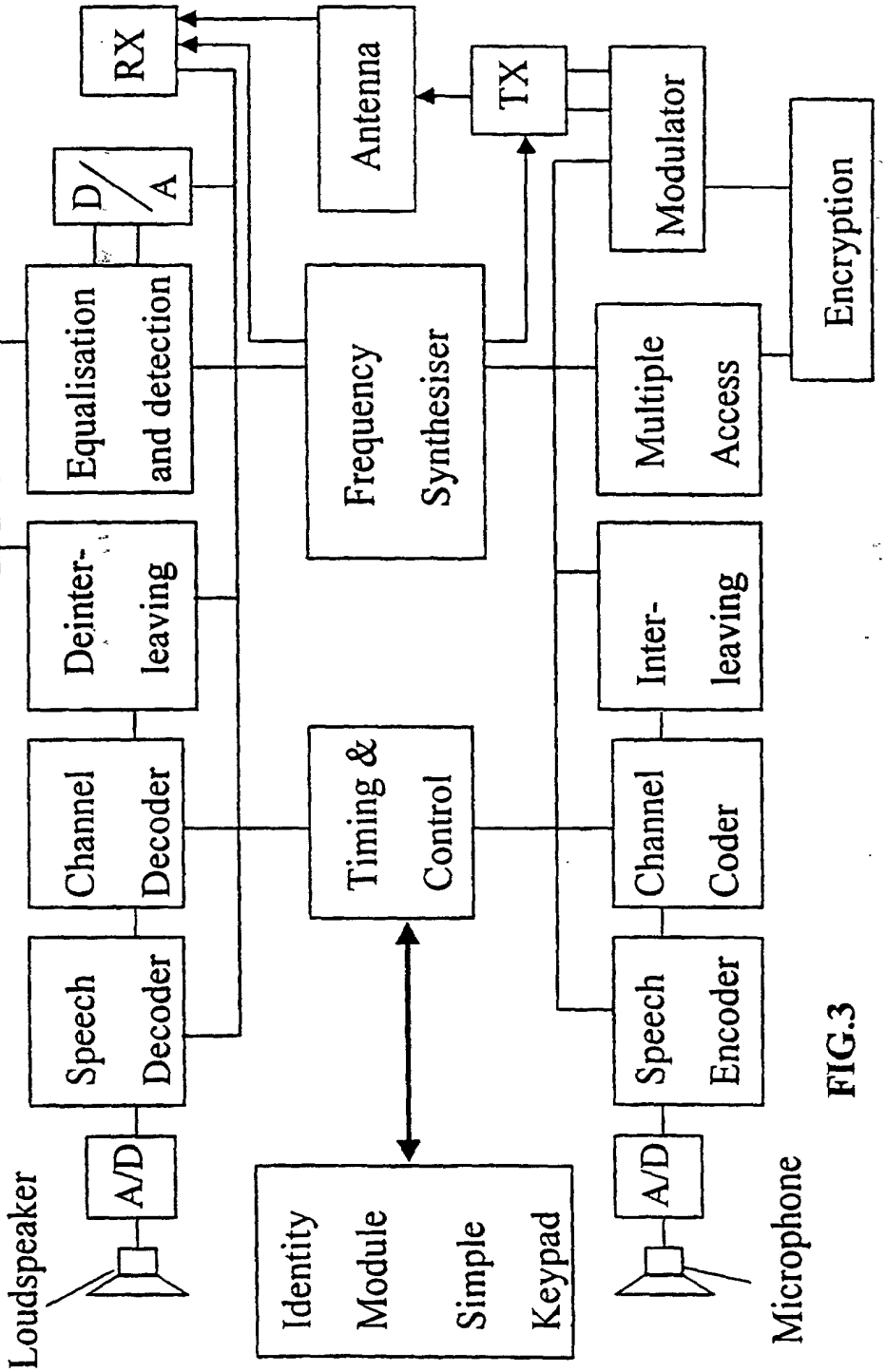


Fig. 2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Antenna
TX
D/A
Modulator
Encryption
Decryption
Equalisation and detection
Frequency Synthesiser
Multiple Access
Deinter-leaving
Inter-leaving
Channel Decoder
Timing & Control
Channel Coder
Speech Decoder
Speech Encoder
A/D
A/D
Loudspeaker
Identity Module
Simple Keypad
Microphone

FIG.3

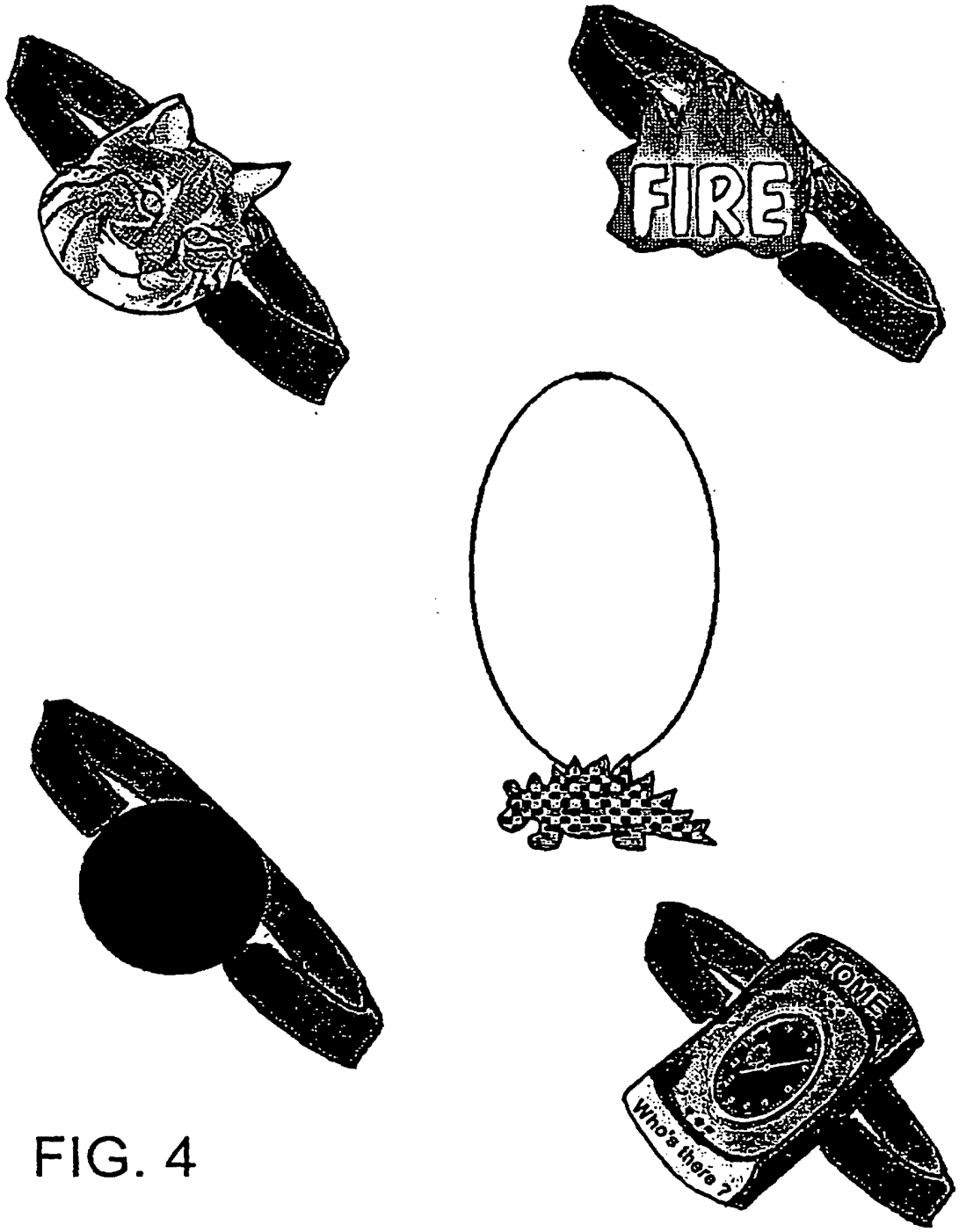

FIG. 4

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Ohne internationalen Recherchenbericht und erneut zu veröffentlichen nach Erhalt des Berichts.

(54) Title: MOBILE RADIO TELEPHONE WITH REDUCED KEY SET

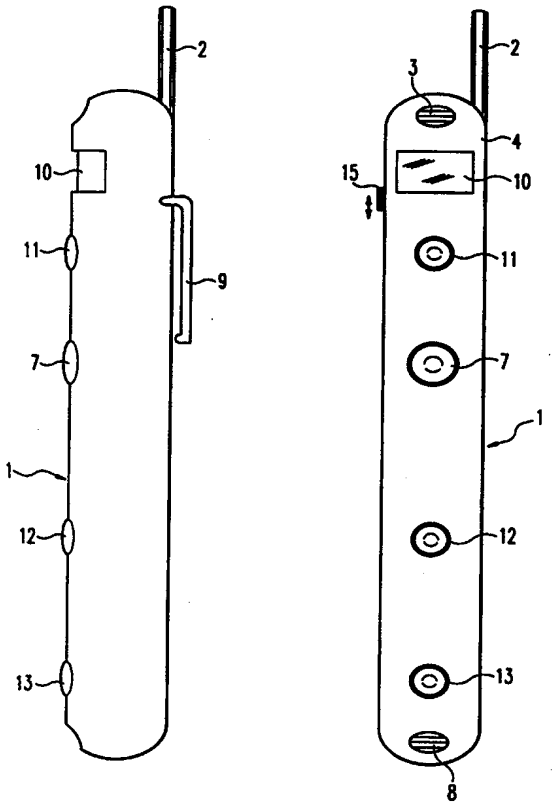
(54) Bezeichnung: MOBILFUNKGERÄT MIT VERRINGERTEM TASTENSATZ

(57) Abstract

The invention seeks to reduce the size of a mobile radio telephone (1) by reducing its key set (7, 11, 12, 13). The invention relates to a system and a method for mobile radio telephone transmission by means of a mobile unit (1) having just one or more direct connection keys (7, 11, 12, 13) to establish a connection. By pressing these keys once, a connection is established to the destination allocated to the respective direct connection key (7, 11, 12, 13). Connection (33) of the mobile unit (1) to a central communication device (30) is established by pressing a central key (7) on the mobile unit (1).

(57) Zusammenfassung

Die Erfindung schafft die Möglichkeit der Verkleinerung eines Mobilfunkgerätes (1) durch Verringerung des Tastensatzes (7, 11, 12, 13). Gemäß der Erfindung ist ein System und ein Verfahren zur Mobilfunkübertragung mittels eines Mobilteils (1) vorgesehen, das zum Verbindungsaufbau lediglich eine oder mehrere Direktverbindungs–Tasten (7, 11, 12, 13) aufweist, durch deren einmalige Betätigung jeweils eine Verbindung zu einem der jeweiligen Direktverbindungs–Taste (7, 11, 12, 13) zugeordneten Verbindungsziel aufgebaut wird. Durch Betätigung einer Zentraltaste (7) des Mobilteils (1) wird eine Verbindung (33) von dem Mobilteil (1) zu einer zentralen Vermittlungseinrichtung (30) aufgebaut.



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Mobilfunkgerät mit verringertem Tastensatz

Die vorliegende Erfindung bezieht sich auf ein Verfahren und ein System zur Mobilfunkübertragung mittels eines Mobilteils.

Bei Mobilfunkgeräten (Mobiltelefonen) ist die Größe und das Gewicht des Mobiltelefons ein entscheidender Faktor für den Verwender. Dies heißt, je kleiner und leichter ein Gerät ist, desto bequemer kann es jederzeit verfügbar von dem Verwender mit sich geführt werden. Indessen sind die herkömmlichen Mobiltelefone im Zuge ihrer Verkleinerung an eine Grenze gestoßen, die kaum mehr überwindbar scheint. Die Länge eines Mobiltelefons wird im Betriebszustand durch den Abstand zwischen einem Ohr und dem Mund des Verwenders definiert. Die Länge des Mobiltelefons läßt sich somit im nicht-gesprächsbereiten Zustand beispielsweise durch ein Zusammenklappen des Mobiltelefons weiter verringern.

Es hat sich somit herausgestellt, daß ein entscheidender Faktor insbesondere für die Breitenabmessung eines Mobiltelefons das Tastenfeld ist. Üblicherweise weist ein Mobiltelefon neben den zehn unmittelbar notwendigen Wahltasten einige weitere Tasten für Zusatzfunktionen auf, so daß in der Regel etwa 20 Tasten auf einem Tastenfeld auf der Oberseite eines Mobiltelefons angeordnet sind. Technisch ist es zwar möglich, die Tasten des Tastenfelds zur Verringerung der Größe des Mobiltelefons insgesamt noch weiter zu verkleinern, indessen sind der Verkleinerung natürliche Grenzen dadurch gesetzt, daß eine Taste sicher und eindeutig durch einen Finger einer Hand eines Erwachsenen betätigbar sein muß. Dies bedeutet, daß der Abstand zweier Tasten zumindest so sein muß, daß bei Betätigung einer Taste keinesfalls eine benachbarte Taste ungewünscht mitbetätigt wird. Selbst wenn zur Verringerung des Tastenfelds die meisten Zusatzfunktions-Tasten weggelassen werden, so verbleiben doch wenigstens neben einem Ein-/Aus-Schalter die zehn für die Zusammensetzung einer gewählten Nummer erforderlichen Tasten. Es besteht also ein Problem dahingehend, daß insbesondere die Verkleinerung herkömmlicher Mobiltelefone in ihrer Breitenrichtung an eine Grenze gestoßen ist.

Die vorliegende Erfindung hat daher zur Aufgabe, ein Mobilfunk-Übertragungssystem so auszugestalten, daß eine besonders kompakte Ausgestaltung des beteiligten Mobilgeräts (Mobiltelefons) ermöglichen.

Die Erfindung geht dabei von der Überlegung aus, daß der Tastensatz stark verringert werden kann und die dennoch vollständige Funktionsfähigkeit des Geräts gewährleistet sind,

wenn der Zugriff auf gewisse Funktionen des Mobilteils beispielsweise in einen intelligenten Vermittlungsdienst ausgelagert werden.

Gemäß der Erfindung ist also ein Verfahren zur Konfigurierung eines Mobilteils vorgesehen, wobei das Mobilteil eine oder mehrere Wahltasten aufweist. Allen Wahltasten wird jeweils ein Verbindungsziel zugewiesen. Durch Betätigung einer Wahltaste ist somit ausschließlich eine Verbindung zu dem zugewiesenen Verbindungsziel möglich. Die Zuweisung an eine Zentraltaste erfolgt dabei so, daß sie der Benutzer des Mobilteils unmittelbar durch Zugriff auf das Mobilteils nicht ändern kann.

Dies bedeutet, daß gemäß der Erfindung das Mobilteil keine Tasten aufweist, die im herkömmlichen Sinne nur zur Eingabe einer Ziffer dienen, sondern daß vielmehr das Mobilteil nur Verbindungsaufbau-Tasten aufweist, die einen Verbindungsaufbau zu einem vorprogrammierten Verbindungsziel durch einmalige Betätigung ermöglichen (Direktwahltasten). Durch Betätigung einer Zentraltaste des Mobilteils wird dabei beispielsweise eine Verbindung von dem Mobilteil zu einer zentralen Vermittlungseinrichtung aufgebaut.

In der zentralen Vermittlungseinrichtung kann eine Paßwort-Tabelle eingespeichert werden, die Teilnehmerdaten mit jeweils zugeordnetem Paßwort enthält. Nach Aufbau der Verbindung von dem Mobilteil zu der zentralen Vermittlungseinrichtung werden dann Teilnehmerdaten und ein Paßwort von dem Mobilteil zu der zentralen Vermittlungseinrichtung übermittelt. Die zentrale Vermittlungseinrichtung gleicht dann die übermittelten Teilnehmerdaten bzw. das übermittelte Paßwort mit den in der Paßwort-Tabelle gespeicherten Daten ab. Für den Fall, daß dieser Abgleich eine Übereinstimmung der übermittelten Teilnehmerdaten und des übermittelten Paßworts mit den entsprechenden Daten der Paßwort-Tabelle ergibt, verbindet dann die zentrale Vermittlungseinrichtung den Bediener des Mobilteils wie gewünscht weiter. Da es gemäß der Erfindung nicht notwendig ist, zur Inbetriebnahme des Mobilteils einen Code einzutippen, wird die Sicherheit für den Benutzer beispielsweise für den Fall eines Diebstahls oder sonstigen Verlusts des Mobilteil durch das zu der zentralen Vermittlungseinrichtung zu übermittelnde Paßwort gesichert.

Die Zuordnung eines Verbindungsziels zu jeweils einer der Verbindungsaufbau-Tasten mit Ausnahme der Zentraltaste kann dabei durch eine Datenübermittlung von der zentralen Vermittlungsstelle zu dem Mobilteil erfolgen. Dabei ist zu bedenken, daß aufgrund des verringerten Tastensatzes, d. h. aufgrund der Tatsache, daß nur die genannten Direktwahltasten auf dem Mobilteil vorgesehen sind, eine Programmierung (Zuordnung) eines

Verbindungszieles zu einer der Verbindungsaufbau-Tasten durch den Benutzer selbst an dem Mobilteil nicht erfolgen kann.

Alternativ oder zusätzlich kann die Zuordnung eines Verbindungsziels zu jeweils einer der Verbindungsaufbau-Tasten mit Ausnahme der Zentraltaste das Mobilteil in eine Feststation eingesetzt werden, wobei die Zuordnung dann durch eine Datenübertragung von der Feststation zu der Mobilstation erfolgt.

Die Feststation kann gleichzeitig als Ladestation dienen. Dies heißt, wenn das Mobilteil in die Feststation eingesetzt ist, kann gleichzeitig ein Akku des Mobilteils aufgeladen werden.

In der Paßwort-Tabelle der zentralen Vermittlungseinrichtung kann eine Liste an bevorzugten Verbindungszielen jeweils einem Paßwort und/oder jeweils bestimmten Teilnehmerdaten zugeordnet werden. Somit wird die Funktion eines persönlichen Telefonbuchs ermöglicht.

Eine besonders einfache Bedienung ergibt sich, wenn das Mobilteil durch die Betätigung der Zentraltaste zuerst eingeschaltet wird, durch eine weitere Betätigung der Zentraltaste dann die Verbindung zu der zentralen Vermittlungseinrichtung aufgebaut wird, durch eine nochmals weitere Betätigung der Zentraltaste die Verbindung zu der zentralen Vermittlungseinrichtung abgebrochen wird und durch eine nochmals weitere Betätigung der Zentraltaste dann das Mobilteil wieder ausgeschaltet wird.

Vorzugsweise weist das Mobilteil eine Tastensperre derart aufweisen, daß ein unbeabsichtigtes Einschalten des Mobilteils verhindert wird. Die Tastensperre kann beispielsweise durch eine Kombination mehrerer Tasten oder durch ein Drücken einer Taszte über einen vorbestimmten Zeitraum hinweg überwunden werden.

Einer der Verbindungsaufbau-Tasten kann ein Notruf-Verbindungsziel zugeordnet werden. Durch einmaligen Druck auf diese Notruftaste kann somit in einfacher Weise eine Verbindung zu einer Notruforganisation hergestellt werden, was insbesondere für Leute von Vorteil ist, denen die Zusammensetzung einer vollständigen Nummer mittels herkömmlicher Wahltasten aus körperlichen und/oder geistigen Gründen nicht möglich ist.

Gemäß einem weiteren Aspekt der Erfindung ist ein Mobilfunk-Übertragungssystem mit wenigstens einem Mobilteil und einer zentralen Vermittlungsstelle vorgesehen. Das Mobilteil weist dabei zum Verbindungsaufbau lediglich eine oder mehrere Tasten auf, durch deren einmalige Betätigung im Sinne einer Direktwahl eine Verbindung zu einem der

jeweiligen Taste zugeordneten Verbindungsziel aufbaubar ist. Dabei ist eine Zentraltaste vorgesehen, der eine zentrale Vermittlungseinrichtung als Verbindungsziel fest vorprogrammiert zugeordnet ist. Fest vorprogrammiert soll in diesem Sinne bedeuten, daß es zumindest dem Benutzer des Mobilteils nicht möglich ist, der Zentraltaste ein anderes Verbindungsziel als die zentrale Vermittlungseinrichtung zuzuordnen.

Die zentrale Vermittlungseinrichtung kann eine Paßwort-Tabelle aufweisen, die Teilnehmerdaten mit jeweils zugeordnetem Paßwort enthält. Es kann eine Einrichtung vorgesehen sein, durch die nach Aufbau der Verbindung von dem Mobilteil zu der zentralen Vermittlungseinrichtung Teilnehmerdaten und ein Paßwort zu der zentralen Vermittlungseinrichtung übermittelbar sind. In der zentralen Vermittlungseinrichtung ist dann eine Einrichtung zum Abgleich der übermittelten Teilnehmerdaten bzw. des übermittelten Paßwort mit der Paßwort-Tabelle vorgesehen.

Für den Fall, daß die Weitervermittlung durch die zentrale Vermittlungseinrichtung nicht zustande kommt, beispielsweise, da der gewünschte Teilnehmer gerade besetzt ist,kann in dem Mobilteil beispielsweise mittels der Zentraltaste eine Wiederwahl-Funktion vorgesehen sein, so daß allein durch erneute Betätigung der Zentraltaste ohne Mitwirkung eine erneuter Anwähl-Versuch ausgeführt werden kann.

In der zentralen Vermittlungseinrichtung kann weiterhin eine Einrichtung zur Zuordnung eines Verbindungsziels zu jeweils einer der Verbindungsaufbau-Tasten mit Ausnahme der Zentraltaste vorgesehen sein, wobei die Zuordnung durch eine Datenübermittlung von der zentralen Vermittlungsstelle zu dem Mobilteil erfolgt.

In dem Mobilfunk-Übertragungssystem kann eine Feststation vorgesehen sein, in die das Mobilteil einsetzbar ist, um eine Zuordnung (Programmierung) jeweils eines Verbindungszieles zu einer der Verbindungsaufbau-Tasten mit Ausnahme der Zentraltaste durch eine Datenübertragung von der Feststation zu dem Mobilteil ausführen.

Die Feststation kann gleichzeitig eine Ladestation sein, die im eingesetzten Zustand des Mobilteils einen Akku des Mobilteils auflädt. Die Feststation kann alle Funktionen eines herkömmlichen Telefons und insbesondere eine Freisprecheinrichtung aufweisen.

In der Paßwort-Tabelle der zentralen Vermittlungseinrichtung kann eine Liste an bevorzugten Verbindungszielen vorgesehen sein, die einem Paßwort und/oder bestimmten Teilnehmerdaten zugeordnet ist.

Die Erfindung wird nun anhand von Ausführungsbeispielen und bezugnehmend auf die begleitenden Zeichnungen näher erläutert. Es zeigen:

Fig. 1 ein erstes Ausführungsbeispiel eines Mobilteils, wie es bei der vorliegenden Erfindung gemäß einem ersten Ausführungsbeispiel Verwendung findet,

Fig. 2 ein weiteres Mobilteil, wie es bei der vorliegenden Erfindung gemäß einem weiteren Ausführungsbeispiel Verwendung findet,

Fig. 3 ein Mobilteil in in eine Feststation gemäß der Erfindung eingesetztem Zustand,

Fig. 4 einen inneren Aufbau eines Mobilteils gemäß der vorliegenden Erfindung, und

Fig. 5 eine schematische Darstellung eines erfindungsgemäßen Systems zur Mobilfunkübertragung.

In Fig. 1 ist ein Mobilteil 1 gezeigt, wie es bei der vorliegenden Erfindung Verwendung findet. Das Mobilteil 1 weist dabei eine Antenne 2, ein Gehäuse 4, einen Lautsprecher 3 sowie ein Mikrofon 8 auf. Der Abstand zwischen dem Lautsprecher 3 und dem Mikrofon 8 entspricht im wesentlichen dem Abstand zwischen einem Ohr und dem Mund eines erwachsenen Menschen. Die Länge des Mobilteils 1 ist im wesentlichen durch den Abstand zwischen dem Lautsprecher 3 und dem Mikrofon 8 vorgegeben. Die Breite des in Fig. 1 dargestellten Mobilteils 1 beträgt beispielsweise 2 bis 3 cm. Diese geringe Breite des Mobilteils 1 wird wie ersichtlich dadurch ermöglicht, daß sich auf der Oberfläche des Mobilteils 1, d. h. auf dem Gehäuse 4 des Mobilteils 1, kein herkömmliches Tastenfeld bestehend aus mehreren Tasten jeweils zur Eingabe einer Ziffer vorgesehen ist. Das Mobilteil 1 gemäß dem in Fig. 1 dargestellten Ausführungsbeispiel weist nur eine Taste, nämlich eine Zentraltaste 7, auf. Wenn diese Zentraltaste 7 einmal gedrückt wird, wird das Mobilteil 1 eingeschaltet. Unmittelbar nach der Inbetriebnahme erfolgt nach erfolgreicher Berechtigungsprüfung der eingesetzten SIM-Karte sofort die Suche nach einem erreichbaren Mobilfunknetz. Das Blinken einer Netzdiode 5 zeigt dabei die ausführung des Suchvorgangs an. Durch ein konsatntes Leuchten der Netzdiode 5 wird angezeigt, daß eine Netzverbindung erfolgreich gefunden wurde. Nach diesem Suchen und Registrieren in ein Mobilfunknetz ist das Mobilteil 1 dann in einem Zustand, in dem es in gleicher Weise wie ein herkömmliches Mobiltelefon angewählt werden kann. Eine Eingabe eines sogenannten

PIN-Codes von Hand muß zum Inbetriebsetzen des Mobilteils 1 nicht erfolgen, da wie ogen ausgeführt automatisch eine interne Prüfung der Berechtigung ausgeführt wird.

Die Netzdiode 5 kann weiterhin die Funktion aufweisen, daß sie durch Änderung ihrer Leuchtfarbe beispielsweise von Grün auf Rot den Zustand anzeigt, daß eine Verbindung aufgebaut ist.

Das Mobilteil 1 weist im übrigen auch einen Lautstärkeregler für den Lautsprecher 3 auf, der indessen nicht dargestellt ist.

In dem eingeschalteten Zustand des Mobilteils 1 können somit Anrufe entgegengenommen werden. Diese Anrufe können akustisch, visuell oder durch Vibration signalisiert werden. Im in Fig. 1 dargestellten Ausführungsbeispiel wird ein Anruf mittels einer Leuchtdiode 5 dargestellt. Diese Gesprächs-Leuchtdiode 5 blinkt bei Anruf und leuchtet während eines Gesprächs kontinuierlich. Durch Drücken der Zentraltaste 7 kann ein laufendes Gespräch wieder beendet werden. Bei Beendigung des Gesprächs erlischt somit die Gesprächs-Leuchtdiode 5.

Im folgenden soll nun erläutert werden, wie von dem Mobilteil 1 aus ausgehende Gespräche geführt werden können. Voraussetzung dafür ist zuerst, daß das Mobilteil 1 eingeschaltet wurde und die Netz-Leuchtdiode 6 leuchtet, also eine Verbindung zu einem Mobilfunknetz besteht. Durch nochmaliges Drücken der Zentraltaste 7 kann dann eine Verbindung zu einem Verbindungsziel aufgebaut werden, wobei das vorbestimmte Verbindungsziel beispielsweise durch den Betreiber des Netzes, den Hersteller des Mobilfunkteils oder den Betreiber des Verbindungsziels fest in dem Mobilteil 1 einprogrammiert ist. „Fest einprogrammiert" bedeutet im Sinne der vorliegenden Beschreibung, daß es durch Zugriff allein auf das Mobilfunkteil 1 nicht möglich ist, das vorbestimmte Verbindungsziel, das der Zentraltaste 7 fest vorprogrammiert zugewiesen ist, zu ändern oder zu löschen. Die Programmierung des der Zentraltaste 7 zugewiesenen Verbindungsziels findet also nicht durch den Benutzer des Mobilteils 1 statt, sondern wird vielmehr vor Verkauf des Mobilteils 1 vom Hersteller einmalig vorgesehen. Als vorbestimmtes Verbindungsziel, das der Zentraltaste 7 vorprogrammiert zugewiesen wird, kommt insbesondere, aber nicht ausschließlich, eine zentrale Vermittlungseinrichtung in Frage. Der genaue Betrieb der zentralen Vermittlungseinrichtung wird weiter unten beschrieben. Durch das zweite Drücken der Zentraltaste 7 wird somit eine direkte Verbindung zu der zentralen Vermittlungseinrichtung aufgebaut, die den Benutzer des Mobilteils 1 dann mit jedem gewünschten weiteren Teilnehmer verbinden kann, wie ebenfalls weiter unten ausgeführt wird.

Das in Fig. 1 dargestellte Ausführungsbeispiel für ein Mobilteil 1 ist somit durch das Weglassen eines Tastenfeldes und das Ersetzen des Tastenfeldes durch eine einzige Wahltaste in Form der Zentraltaste 7 größenmäßig so dimensioniert, daß es beispielsweise mittels eines Clips 9 beliebig getragen werden kann oder mit einer nicht dargestellten Kordel um den Hals gehängt werden kann, so daß beispielsweise ein Monteur mit beiden Händen arbeiten kann und gleichzeitig durch das umgehängte und in Betrieb gesetzte Mobilteil 1 online instruiert werden kann. Dazu kann vorzugsweise ein bekannter Ohrhörer vorgesehen sein, da der Monteur ja während seiner Tätigkeit das Mobilteil 1 nicht an seinem Ohr halten kann.

Nunmehr soll eine weitere Ausführungsform eines erfindungsgemäßen Mobilteils 1 bezugnehmend auf Fig. 2 erläutert werden. Das in Fig. 2 dargestellte Mobilteil 1 weist sämtliche Elemente des in Fig. 1 dargestellten Mobilteils 1 auf. Von dem in Fig. 1 dargestellten Mobilteil unterscheidet sich das in Fig. 2 dargestellte Mobilteil 1 im wesentlichen dadurch, daß mehrere Direkt-Verbindungstasten 7, 11, 12, 13 vorgesehen sind. Weiterhin ist bei dem Ausführungsbeispiel von Fig. 2 die Ein-/Aus-Schaltfunktion für das Mobilteil 1 separat zu der Zentraltaste 7, nämlich in Form eines Ein-/Ausschalters 15 vorgesehen. Dieser Ein-/Ausschalter des Mobilteils 1 gemäß Fig. 2 befindet sich seitlich an dem Gehäuse 4 des Mobilteils 1 und kann zum Ein- bzw. Ausschalten des Geräts nach oben bzw. unten verschoben werden. Weiterhin weist das in Fig. 2 dargestellte Mobilteil ein Anzeigefeld 10 auf.

Nun soll die Funktion der weiteren Direkt-Verbindungstasten 11, 12, 13 des Mobilteils 1 von Fig. 2 erläutert werden. Diese Direkt-Verbindungstasten 11, 12, 13 haben mit der Zentraltaste 7 gemeinsam, daß durch eine einmalige Betätigung von ihnen eine Verbindung zu einem ihnen jeweils zugewiesenen Verbindungsziel aufgebaut werden kann. Beispielsweise kann der Taste 13 ein Notrufziel, d. h. eine Notruforganisation als Verbindungsziel zugewiesen sein. Die Tasten 11 und 12 können als Direkt-Verbindungstasten beispielsweise für häufig erwünschte Verbindungen frei vom Benutzer des Mobilteils 1 belegt werden, wie im folgenden beschrieben werden wird.

Auch wenn es nicht dargestellt ist, so kann das Mobilteil 1 von Fig. 2 auch eine Schnittstelle aufweisen, die den Anschluß an ein bekanntes GSM-Modem ermöglicht.

Die vom Benutzer frei belegbaren Tasten können wie folgt belegt werden. Zuerst stellt der Benutzer durch Betätigung der Zentraltaste 7 eine Verbindung zu der zentralen Vermittlungseinrichtung her. Sobald er eine Verbindung mit der zentralen Vermittlungs-

einrichtung hat, übermittelt der Benutzer des Mobilteils 1 der zentralen Vermittlungseinrichtung Informationen, nämlich welches Verbindungsziel welcher der frei belegbaren Tasten 11, 12 zugewiesen werden soll. Die eigentliche Belegung (Programmierung) der frei belegbaren Tasten 11, 12 erfolgt nun nicht unmittelbar auf dem Mobilteil 1 selbst, sondern beispielsweise über bekannte DTMF-Befehle von der zentralen Vermittlungseinrichtung zu dem Mobilteil 1 über einen Funkübertragungsweg. Die Belegung der frei belegbaren Tasten 11, 12 findet also nicht jeweils lokal an einem Mobilteil 1 statt, sondern erfolgt vielmehr als eine Möglichkeit zentral von der Vermittlungseinrichtung.

Vor der eigentlichen Speicherung der übertragenen Belegung werden die von der zentralen Vermittlungseinrichtung 30 her übertragenen Daten auf dem Display 10 des Mobilteils 1 angezeigt. Die endgültige Abspeicherung der Belegung erfolgt erst danach durch Drücken einer Taste, beispielsweise einer der Wahltasten 7, 11, 12, 13 durch den Benutzer.

Von der zentralen Vermittlungseinrichtung 30 her können also Kurzwahlspeicher, die einzelnen Tasten zugeordnet sind, sowie Speicherplätze eines Telefonbuchs auf der SIM-Karte belegt werden. Weiterhin kann als Antwort auf einen entsprechenden Anruf von dem Mobilteil 1 zu der Zentralvermittlungseinrichtung 30 die zentrale Vermittlungseinrichtung 30 zu dem Mobilteil 1 Informationen übertragen, die den Rufton-Typ oder die Ruftöne festlegen, die bei der Benutzung des Mobilteils 1 erklingen sollen. Weiterhin können andere Konditionierungen des Mobilteils 1, wie beispielsweise Anrufsperre, Rufumleitung, Deaktivierung des Begrüßungstextes und Änderung/Auswahl von Ikonen für die Speicherplätze der Kurzwahlspeicher der Direktwahltasten als Antwort auf einen Anruf von dem Mobilteil 1 zu der zentralen Vermittlungseinrichtung 30 durch eine Übertragung von entsprechenden Informationen von der zentralen Vermittlungseinrichtung 30 zu dem Mobilteil 1 erfolgen.

Eine weitere Möglichkeit, wie die Programmierung der frei belegbaren Tasten 11, 12 erfolgen kann, ist in Fig. 3 dargestellt. In Fig. 3 ist das Mobilteil 1 in dem Zustand dargestellt, in dem es in eine Feststation 20 eingesetzt ist. Im eingesetzten Zustand ist es dabei mit der Feststation 20 elektrisch so verbunden, daß ein Akku 14, der die Spannungsversorgung des Mobilteils 1 garantiert von der Feststation 20 her aufgeladen wird. Die Feststation 20 dient somit auch als Ladestation für den Akku 14 des Mobilteils 1. Wie in Figur 3 ersichtlich weist die Feststation 20 sämtliche Bedienungselemente auf, wie es bei einem herkömmlichen Telefon üblich ist, nämlich ein komplettes Tasten-Bedienfeld 23 mit wenigstens 10 Bedientasten sowie eine großformatige LCD-Anzeige 21. Darüber hinaus weist die in Fig. 3 dargestellte Feststation 20 eine Zentraltaste 22 auf, die dieselbe Funktion

wie die oben erläuterte Zentraltaste 7 des Mobilteils 1 erfüllt, wenn das Mobilteil 1 in die Feststation 20 eingesetzt ist. Wie bereits erläutert, wird der Akku 14 des Mobilteils 1 in dem in die Feststation 20 eingesetzten Zustand des Mobilteils 1 geladen. Darüber hinaus ermöglicht das Bedienfeld 23 der Feststation 20, die Belegung der frei belegbaren Tasten 11, 12 des Mobilteils 1 auszuführen. Das heißt, es werden Zuweisungsdaten von der Feststation 20 zu dem Mobilteil 1 übertragen, die jeweils Verbindungsziele den einzelnen frei belegbaren Tasten 11, 12 zuweisen. Wie bereits ausgeführt, ist es auch mittels der Feststation 20 nicht möglich, die Zuweisung des Verbindungszieles für die Zentraltaste 7 zu ändern.

Bezugnehmend auf Fig. 4 soll nunmehr der innere Aufbau eines Mobilteils 1 erläutert werden. Der zentrale Baustein der Elektronik in einem Mobilteil 1 ist wie dargestellt ein Prozessor 40, der beispielsweise ein handelsüblicher Chip für Mobiltelefone sein kann. Dem Prozessor 40 werden dabei Sprachdaten zugeführt, die durch eine Digitalisierung der durch das Mikrofon 8 eingegebenen analogen Sprachsignale durch einen A/D-Wandler 46 bereitgestellt werden. Dem Prozessor 40 werden weiterhin die Informationen von den Wahltasten, nämlich den Direkt-Verbindungstasten des Mobilteils 1 zugeführt. In Fig. 4 ist als Beispiel die Zuführung von Signalen von der Zentraltaste 7 dargestellt. Die Taste 7 ist wie dargestellt mit einem Timer (Zeitgeber) 43 verbunden. Der Timer 43 erfaßt somit, ob und wie lange die Taste 7 gedrückt ist. Ein Zähler 44, der wiederum mit dem Timer 43 verbunden ist, ermittelt die durch den Timer 43 erfaßte Betätigungs-Zeitdauer der Taste 7. Der Inhalt des Zählers 44 wird dann dem Prozessor 40 zugeführt. Mittels des Timers 43 und des Zählers 44 kann der Prozessor 40 somit erfassen, ob eine Taste, im dargestellten Fall die Zentraltaste 7 gedrückt ist und wie lange eine Taste gedrückt wurde. Der Prozessor 40 kann somit eine Schaltzustandsauswertung durchführen. Dies bedeutet, daß der Prozessor 40 beispielsweise erfassen kann, daß die Zentraltaste 7 des Mobilteils 1 gemäß der Ausführungsform von Fig. 1 erstmalig gedrückt wird. Diesen Schaltzustand 1 setzt der Prozessor 40 derart um, daß er die Spannungsversorgung für das Mobilteil 1 einschaltet und gleichzeitig die Registrierung des Mobilteils 1 in dem entsprechenden Mobilfunknetz veranlaßt. Da der Prozessor 40 auch erfaßt, wie lange die Taste 7 beim erstmaligen Betätigen gedrückt wurde, kann er beispielsweise veranlassen, daß bei Überschreiten einer vorbestimmten Zeitdauer der Betätigung der Taste 7 automatisch ein Notruf an eine Notruforganisation als Verbindungsziel abgesendet wird.

Ein nochmaliges Drücken der Zentraltaste 7 erzeugt den Schaltzustand 2. Diesen Schaltzustand 2 wertet der Prozessor 40 dahingehend aus, daß er die Verbindung zu der zentralen Vermittlungseinrichtung herstellt. Der Prozessor 40 wertet somit die Schaltzustände sowie die Zeitdauer der Betätigung der einzelnen Wahltasten des Mobilteils 1 aus.

Mit dem Prozessor 40 ist in bekannter Weise ein HF-Modul als Sende-/Empfangsvorrichtung verbunden, mit dem wiederum die Antenne 2 des Mobilteils verbunden ist.

Bei einem üblichen Mobiltelefon, das eine Adreßbuch-Funktion aufweist, wird normalerweise bei Aktivieren der Adreßbuch-Funktion Adreßbuch-Daten aus einem ersten Wählregister, das beispielsweise auf einer Chipkarte gespeichert sein kann, in ein zweites Wählregister geladen. Gemäß der vorliegenden Erfindung indessen weist die Elektronik eines Mobilteils 1 nur ein Wählregister 47 auf, das die Zuweisungsdaten der Verbindungsziele für die frei belegbaren Tasten 11, 12 (siehe Ausführungsbeispiel von Fig.2) enthält. Bei einer Zuweisung von Verbindungszielen an eine frei belegbare Taste mittels der zentralen Vermittlungseinrichtung oder der Feststation 20 wie oben erläutert, wird somit der Inhalt des Wählregisters 47 allein geändert.

Bezugnehmend auf Fig. 5 soll nunmehr die Funktion unter Betrieb der zentralen Vermittlungseinrichtung näher erläutert werden. In Fig. 5 sind Mobilteile 1, 101, 201, 301 dargestellt, die miteinander insbesondere über eine zentrale Vermittlungseinrichtung 30 kommunizieren können. In Fig. 5 ist der Fall dargestellt, daß das Mobilteil 1 eine Funkverbindung 33 mittels einer Antenne 31 mit der zentralen Vermittlungseinrichtung 30 aufgebaut hat, und die zentrale Vermittlungseinrichtung 30 diesen Anruf mittels einer Antenne 32 über einen weiteren Funkübertragungsweg 34 an ein weiteres Mobilteil 201 weiter vermittelt hat. Die Weitervermittlung erfolgt dabei wie folgt. Beispielsweise bei der erstmaligen Registrierung eines Mobilteiles wird in der zentralen Vermittlungseinrichtung 30 eine Paßwort-Tabelle angelegt. In der Paßwort-Tabelle sind Teilnehmerdaten, wie beispielsweise die Anrufnummer oder die Chipkartennummer (PIN-Nummer) usw. zu jeweils den Teilnehmerdaten zugeordnete Paßwörter abgespeichert. Wenn nun ein Mobilteil 1 eine Verbindung 33 zu der zentralen Vermittlungseinrichtung 30 in der oben beschriebenen Weise beispielsweise über die Zentraltaste 7 hergestellt hat, werden der zentralen Vermittlungseinrichtung 30 automatisch gleichzeitig mit dem Anruf die Teilnehmerdaten beispielsweise in dem sogenannten A-Feld des GSM-Standards übertragen. Die zentrale Vermittlungseinrichtung 30 ist somit durch die Übertragung der Teilnehmerdaten automatisch von dem Mobilteil 1 her sofort informiert, welcher Teilnehmer eine Verbindung zu der zentralen Vermittlungseinrichtung 30 aufgebaut hat. Nach dieser automatischen Übertragung der Teilnehmerdaten von dem Mobilteil 1 zu der zentralen Vermittlungseinrichtung 30 fragt die zentrale Vermittlungseinheit 30 von dem Mobilteil 1 ein Paßwort ab. Dieses als Antwort auf die Abfrage von der zentralen Vermittlungseinrichtung 30 hin von dem Mobilteil 1 her übermittelte Paßwort wird dann in der Paßwort-Tabelle in der zentralen Vermittlungseinrichtung 30 abgeglichen. Dies

bedeutet, daß die zentrale Vermittlungseinheit 30 überprüft, ob das übermittelte Paßwort tatsächlich den automatisch erhaltenen Teilnehmerdaten zugeordnet ist. Nur wenn diese Überprüfung der Paßwort-Tabelle positiv ist, d.h. wenn das übermittelte Paßwort und die übermittelten Teilnehmerdaten tatsächlich der Kombination Paßwort/Teilnehmerdaten der Paßwort-Tabelle in der zentralen Vermittlungseinrichtung 30 entsprechen, vermittelt die zentrale Vermittlungseinrichtung 30 den Anruf 33 von dem Mobilteil 1 her zu dem gewünschten Teilnehmer; im dargestellten Fall zu dem Mobilteil 201.

Auch wenn im dargestellten Beispiel die Weitervermittlung eines Gesprächs an ein weiteres Mobilteil erfolgt, so ist doch ersichtlich, daß der Anruf von einem erfindungsgemäßen Mobilteil genauso an einen Festnetz-Anschluß weitervermittelt werden kann.

Diese Sicherheitsfunktion durch die Abfrage des Paßworts ist wichtig, da erfindungsgemäß beim Einschalten des Mobilteils 1 kein PIN-Code eingegeben werden muß und somit diese Möglichkeit einer Diebstahlsicherung bzw. Mißbrauchssicherung entfällt. Nicht autorisierte Personen können somit mit einem erfindungsgemäßen Mobilteil lediglich Gespräche entgegennehmen. Das Führen von ausgehenden Gesprächen ist lediglich zu den Verbindungszielen möglich, die für den Fall der Ausführungsform von Fig. 2 den frei belegbaren Tasten 11, 12 zugewiesen sind. In der Regel sind diese Verbindungsziele, die den frei belegbaren Tasten 11, 12 zugewiesen sind, indessen nur für eine bestimmte Person von Bedeutung, so daß ein mißbräuchlicher Verwender kein Interesse an der Verwendung dieser vorgegebenen Verbindungsziele hat.

Die in einem Mobilteil enthaltene Karte allein hat für den widerrechtlichen Verwender ebenfalls wenig nutzen, da ja nach Einlegen dieser Karte in ein anderes Mobilteil ein Berechtigungs-Prüfvorgang erfolgt, der negativ enden wird.

Die Paßwort-Funktion wird übrigens auch bei der Funktion der Zuweisung der frei belegbaren Tasten 11, 12 bei der Ausführungsform des Mobilteils 1 gemäß Fig. 2 von der zentralen Vermittlungseinrichtung 30 her verwendet. Nach einem Anruf bei der zentralen Vermittlungseinrichtung 30 kann somit eine Tastenbelegung erst nach zutreffender Nennung des Paßworts vorgenommen werden. Der Vermittlungsoperator in der zentralen Vermittlungseinrichtung 30 sendet dann die entsprechenden beispielsweise DTMF-Befehle an das anrufende Mobilteil. Somit kann ein mißbräuchlicher Benutzer die für ihn ungünstigen Verbindungsziele, die beispielsweise bei einem entwendeten Mobilteil 1 den frei belegbaren Tasten 11, 12 vom rechtmäßigen Benutzer zugewiesen wurden, nicht dahingehend abändern, daß er mittels der zentralen Vermittlungseinrichtung für ihn

günstigere bzw. häufiger gewünschte Verbindungsziele den frei belegbaren Tasten 11, 12 mittels der zentralen Vermittlungseinrichtung 30 zuweisen läßt.

Um die Vermittlung eines in einem Mobilteil in der zentralen Vermittlungseinrichtung 30 eingehenden Anrufs besonders schnell und einfach zu gestalten, können beispielsweise bei der erstmaligen Registrierung des Mobilteils 1 der Paßwort-Tabelle in der zentralen Vermittlungseinrichtung 30 bevorzugte Verbindungsziele, deren Anzahl vom Betreiber der zentralen Vermittlungseinrichtung 30 begrenzt werden kann, vorgegeben werden. Unmittelbar nach Anruf von einem Mobilteil 1 und der automatischen Übertragung der entsprechenden Teilnehmerdaten ermittelt somit die zentrale Vermittlungseinrichtung 30 ausgehend von den Teilnehmerdaten der entsprechenden Paßwort-Tabelle die bevorzugten Verbindungsziele, so daß eine Vermittlung zu den bevorzugten Verbindungszielen mit weitaus geringerem Aufwand erfolgen kann, als wenn eine Verbindung zu beliebigen anderen Verbindungszielen, die natürlich weiterhin möglich ist, mit im Verhältnis dazu größerem Suchaufwand erfolgen muß.

Gemäß der Erfindung kann also der Tastensatz stark verringert werden und es wird dennoch die vollständige Funktionsfähigkeit des Geräts gewährleistet sind, indem der Zugriff auf gewisse Funktionen des Mobilteils beispielsweise in einen intelligenten Vermittlungsdienst oder eine Feststation ausgelagert werden und somit nicht unmittelbar auf dem Mobilteil erfolgt.

Bezugszeichenliste:

Mobilteil:
1: Mobilteil
2: Antenne
3: Lautsprecher
4: Gehäuse
5: Leuchtdiode
6: Leuchtdiode
7: Zentraltaste
8: Mikrophon
9: Clip
10: Anzeigefeld
11: Direktverbindungs-Taste
12: Direkverbindungs-Taste
13: Notruftaste
14: Akku

Ladestation:
20: Feststation (Ladestation)
21: Anzeigefeld
22: Zentraltaste (Feststation)
23: Tastenfeld

30: Zentrale Vermittlungsvorrichtung
31: Antenne
32: Antenne
33: Übertragungsweg
34: Übertragungsweg

Innerer Aufbau eines Mobilteils:
40: Prozessor
41: HF-Modul (Sender)
43: Timer
44: Zähler
46: A/D-Wandler
47: Wählregister

101: weiteres Mobilteil
201: weiteres Mobilteil
302: weiteres Mobilteil

Ansprüche

1. Verfahren zur Konfigurierung eines Mobilteil (1) für eine Mobilfunk-Übertragung, wobei das Mobilteil (1) eine oder mehrere Wahltasten (7, 11, 12, 13) aufweist, aufweisend die folgenden Schritte:
- Übertragung von Sprachinformation von dem Mobilteil (1) zu einer zentralen Vermittlungsstelle (30), wobei die Sprachinformation eine gewünschte Belegung von Direktwahltasten der Wahltasten (7, 11, 12, 13) des Mobilteils (1) wiedergibt, und
- Zuweisung eines Verbindungsziels abhängig von der übertragenen Sprachinformation an die Direktwahltasten der Wahltasten (11, 12, 13) durch eine drahtlose Datenübermittlung von der zentralen Vermittlungsstelle (30) zu dem Mobilteil (1).

2. Verfahren zur Konfigurierung eines Mobilteils (1) für eine Mobilfunk-Übertragung, wobei das Mobilteil (1) eine oder mehrere Wahltasten (7, 11, 12, 13) aufweist, gekennzeichnet durch die folgenden Schritte:
- Zuweisung jeweils eines Verbindungszieles (101, 201, 301) an alle Wahltasten (7, 11, 12, 13) des Mobilteils (1), so daß durch Betätigung einer der Wahltasten (7, 11, 12, 13) ausschließlich eine Verbindung zu dem zugewiesenen Verbindungsziel aufgebaut werden kann, wobei
zur Zuweisung eines Verbindungsziels zu jeweils einer der Wahltasten (7, 11, 12, 13) das Mobilteil (1) in eine Feststation (20) eingesetzt wird und die Zuordnung durch eine Datenübertragung von der Feststation (20) zu der Mobilstation (1) erfolgt.

3. Verfahren nach Anspruch 1 oder 2,
dadurch gekennzeichnet,
daß die Zuweisung eines vorbestimmten Verbindungsziels die Wahltasten (7, 11, 12, 13) durch unmittelbaren Zugriff auf das Mobilteil 1 nicht geändert werden kann.

4. Verfahren nach einem der vorhergehenden Ansprüche,
dadurch gekennzeichnet,
daß einer Zentraltaste (7) unter den Wahltasten eine Vermittlungseinrichtung (30) als Verbindungsziel zugewiesen wird.

5. Verfahren nach Anspruch 2,
dadurch gekennzeichnet,

daß ein Akku (14) des Mobilteils (1) im in der Feststation (20) eingesetzten Zustand des Mobilteils (1) aufgeladen wird.

6. Verfahren nach einem der vorhergehenden Ansprüche,
dadurch gekennzeichnet,
daß das Mobilteil (1) durch die Betätigung der Zentraltaste (7) eingeschalten wird, durch eine weitere Betätigung der Zentraltaste (7) die Verbindung (33) zu der zentralen Vermittlungseinrichtung (30) aufgebaut wird, durch eine nochmals weitere Betätigung der Zentraltaste (7) die Verbindung (33) abgebrochen wird und durch eine nochmals weitere Betätigung der Zentraltaste (7) das Mobilteil (1) ausgeschaltet wird.

7. Verfahren nach einem der vorhergehenden Ansprüche,
dadurch gekennzeichnet,
daß einer (13) der Wahltasten (7, 11, 12, 13) ein Notruf-Verbindungsziel zugewiesen wird.

8. Verfahren zur Mobilfunkübertragung,
dadurch gekennzeichnet, daß
- ein Mobilteil (1) verwendet wird, daß durch ein Verfahren nach einem der Ansprüche 2 bis 5 konfiguriert ist,
- in der zentralen Vermittlungseinrichtung (30) eine Paßwort-Tabelle eingespeichert wird, die Teilnehmerdaten mit jeweils zugeordnetem Paßwort enthält,
- nach Aufbau der Verbindung (33) von dem Mobilteil (1) zu der zentralen Vermittlungseinrichtung (30) Teilnehmerdaten und ein Paßwort übermittelt werden,
- die übermittelten Teilnehmerdaten bzw. das übermittelte Paßwort mit der Paßwort-Tabelle in der zentralen Vermittlungseinrichtung (30) abgeglichen werden, und
- die zentrale Vermittlungseinrichtung (30) eine Weitervermittlung (34) nur vornimmt, wenn der Abgleich eine Übereinstimmung der übermittelten Teilnehmerdaten und des übermittelten Paßworts mit den entsprechenden Daten der Paßwort-Tabelle ergibt.

9. Verfahren nach Anspruch 8,
dadurch gekennzeichnet,
daß in der Paßwort-Tabelle der zentralen Vermittlungseinrichtung (30) jeweils eine Liste an bevorzugten Verbindungszielen einem Paßwort und/oder bestimmten Teilnehmerdaten zugeordnet wird.

10. Mobilfunk-Übertragungsystem mit einem Mobilteil, das Direktverbindungstasten (7, 11, 12, 13) aufweist, und einer zentralen Vermittlungseinrichtung (30),
dadurch gekennzeichnet, daß

- die zentrale Vermittlungseinrichtung (30) eine Paßwort-Tabelle aufweist, die Teilnehmerdaten mit jeweils zugeordnetem Paßwort enthält,
- eine Einrichtung vorgesehen ist, durch die nach Aufbau der Verbindung (33) von dem Mobilteil (1) zu der zentralen Vermittlungseinrichtung (30) Teilnehmerdaten und ein Paßwort zu der zentralen Vermittlungseinrichtung (30) übermittelbar sind,
- in der zentralen Vermittlungseinrichtung (30) eine Einrichtung zum Abgleich der übermittelten Teilnehmerdaten bzw. des übermittelten Paßworts mit der Paßwort-Tabelle vorgesehen ist, wobei

in der zentralen Vermittlungseinrichtung (30) eine Einrichtung zur Zuordnung eines Verbindungsziels zu jeweils einer der Direktverbindungs-Tasten (11, 12, 13) durch eine drahtlose Datenübermittlung von der zentralen Vermittlungsstelle (30) zu dem Mobilteil (1) vorgesehen ist, wobei diese Zuordnung als Antwort auf eine entsprechende Übertragung von Sprachinformationen von dem Mobilteil (1) zu der zentralen Vermittlungseinrichtung (30) erfolgt.

11. Mobilfunk-Übertragungsystem nach Anspruch 10,
dadurch gekennzeichnet,
daß eine Feststation (20) vorgesehen ist, in die das Mobilteil (20) einsetzbar ist, um eine Zuordnung jeweils eines Verbindungszieles zu einer der Direktverbindungs-Tasten (11, 12, 13) mit Ausnahme der Zentraltaste (7) durch eine Datenübertragung von der Feststation (20) zu dem Mobilteil (1) auszuführen.

12. Mobilfunk-Übertragungsystem nach Anspruch 11,
dadurch gekennzeichnet,
daß die Feststation als Ladestation (2) ausgeführt ist und das Mobilteil (1) einen Akku (14) aufweist, der im in der Feststation (20) eingesetzten Zustand des Mobilteils (1) aufladbar ist.

13. Mobilfunk-Übertragungsystem nach einem der Ansprüche 11 oder 12,
dadurch gekennzeichnet,
daß in der Paßwort-Tabelle der zentralen Vermittlungseinrichtung (30) eine Liste an möglichen Verbindungszielen vorgesehen ist, die jeweils einem Paßwort und/oder jeweils bestimmten Teilnehmerdaten zugeordnet ist.

Fig. 1

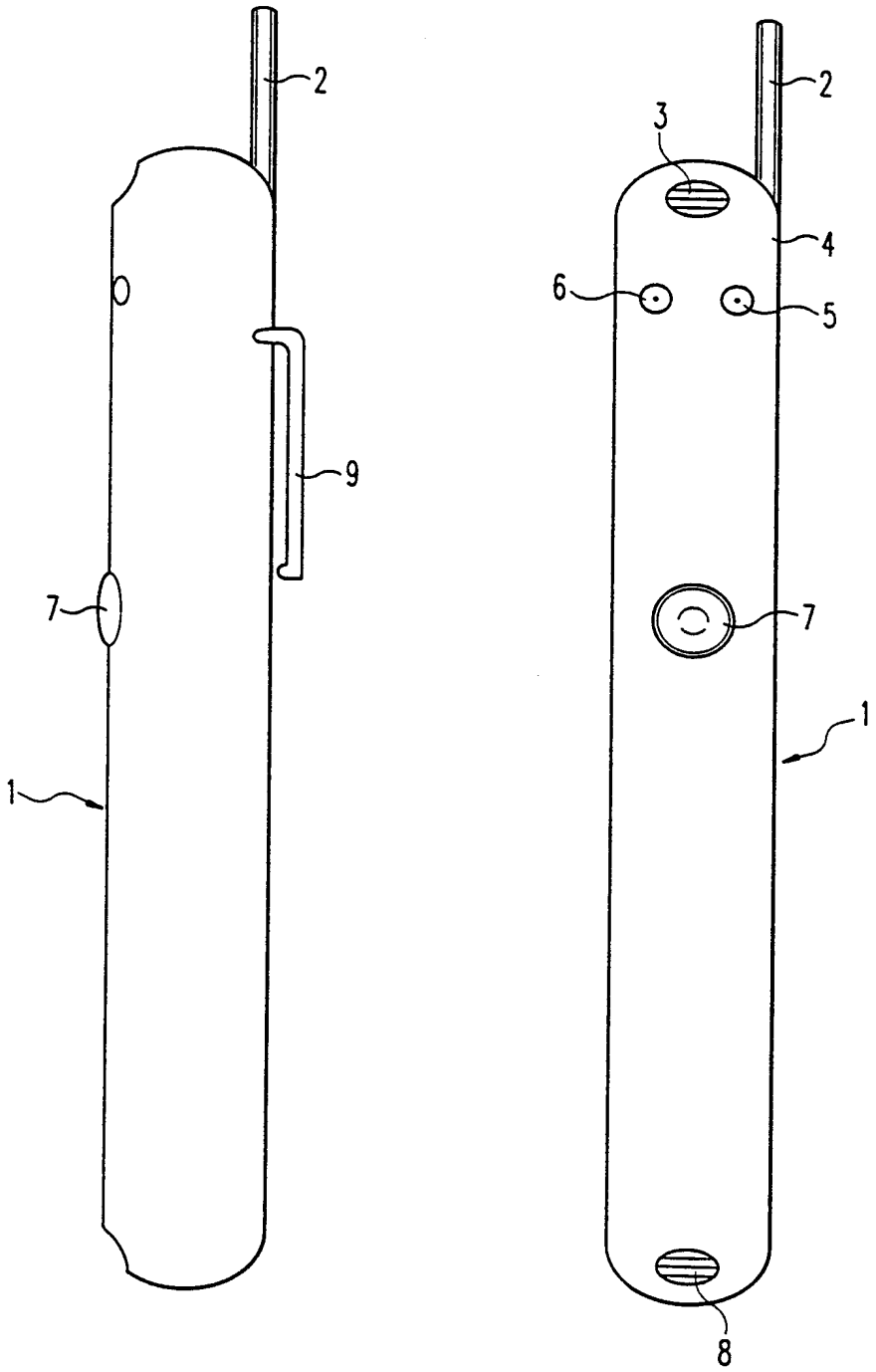


Fig. 2

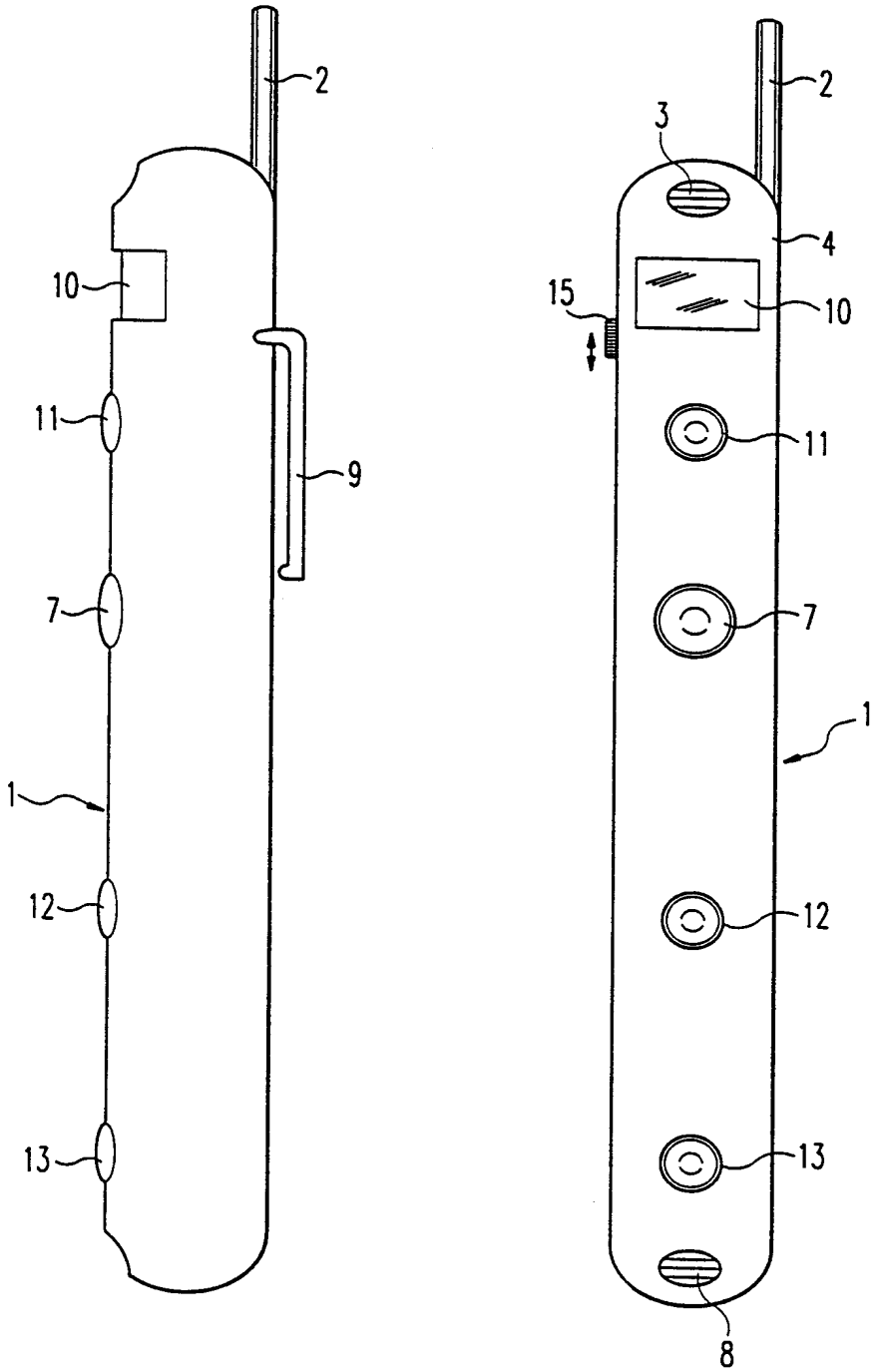


Fig. 3

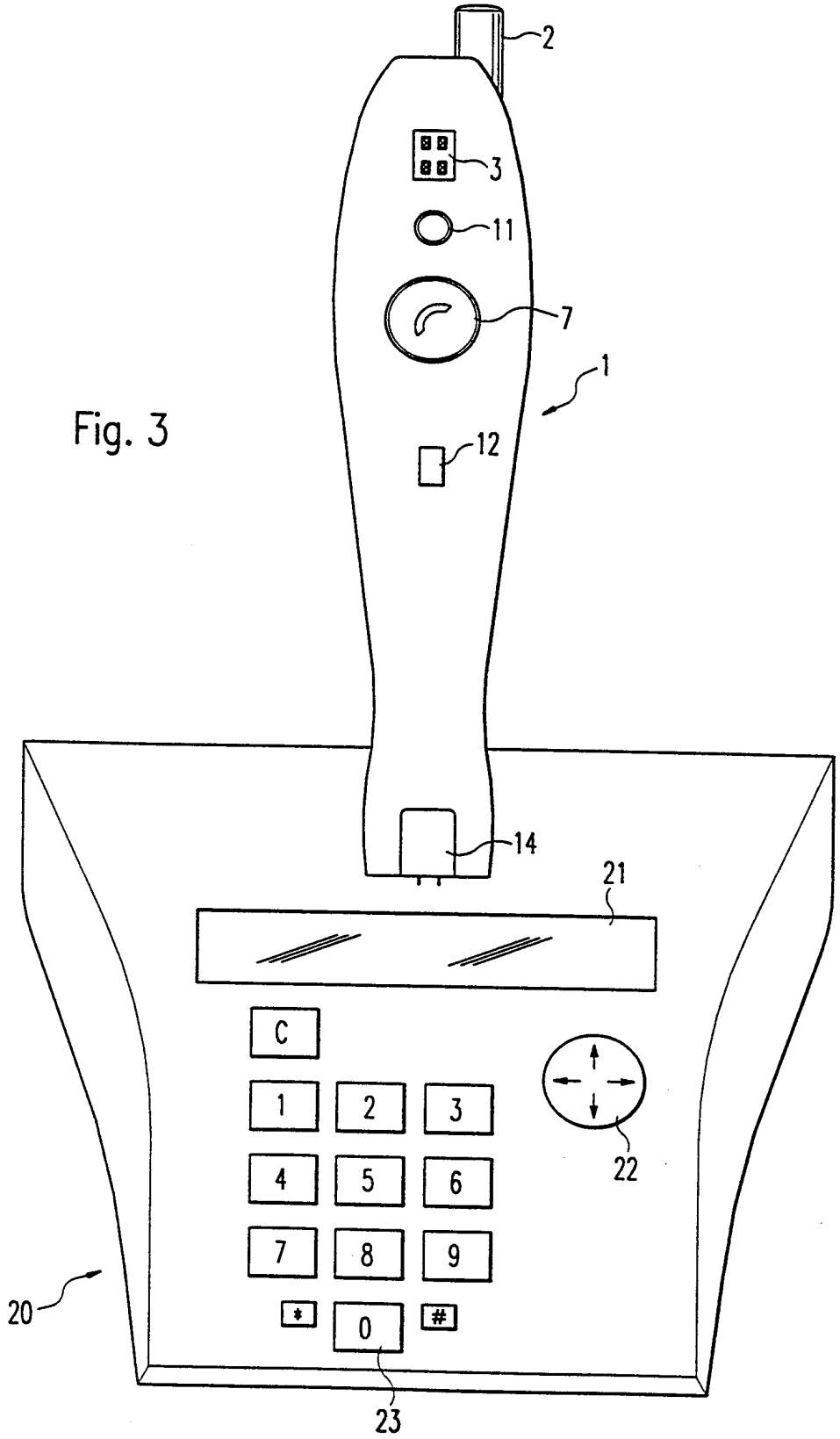
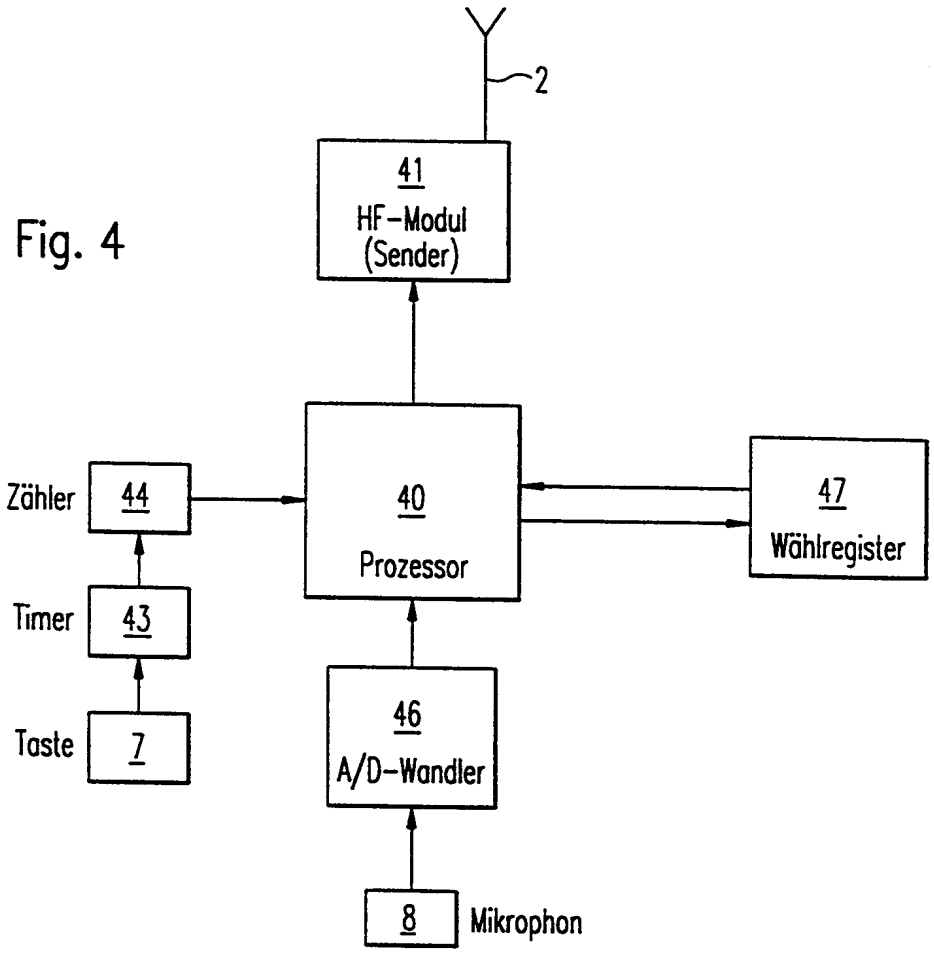


Fig. 4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41
HF-Modul
(Sender)
Zähler
44
40
Prozessor
47
Wählregister
Timer
43
Taste
7
46
A/D-Wandler
8
Mikrophon

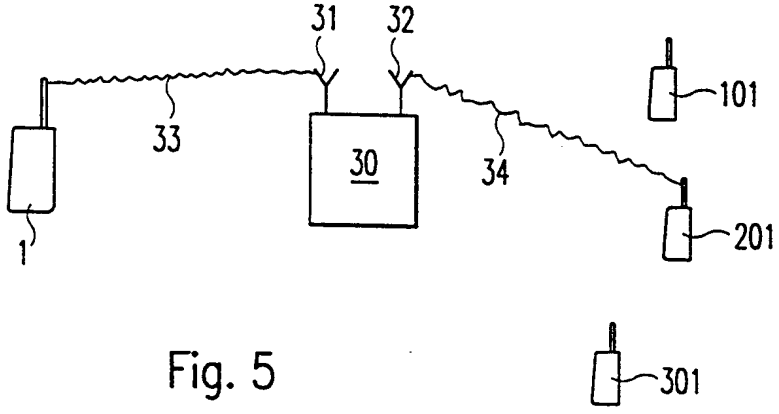
31
32
101
33
30
34
1
201
301

Fig. 5

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(71) Anmelder *(für alle Bestimmungsstaaten ausser US)*: EASY-PHONE GMBH [DE/DE]; Inselkammerstrasse 1, D–82008 Unterhaching (DE).

(72) Erfinder; und
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(74) Anwalt: SCHULZ, Rütger; Mitscherlich & Partner, Sonnenstrasse 33, D–80331 München (DE).

(81) Bestimmungsstaaten: AU, CA, CZ, NO, RU, SG, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Veröffentlicht
Mit internationalem Recherchenbericht.

(88) Veröffentlichungsdatum des internationalen Recherchenrichts: 4. Februar 1999 (04.02.99)

(54) Title: MOBILE RADIO TELEPHONE WITH REDUCED KEY SET

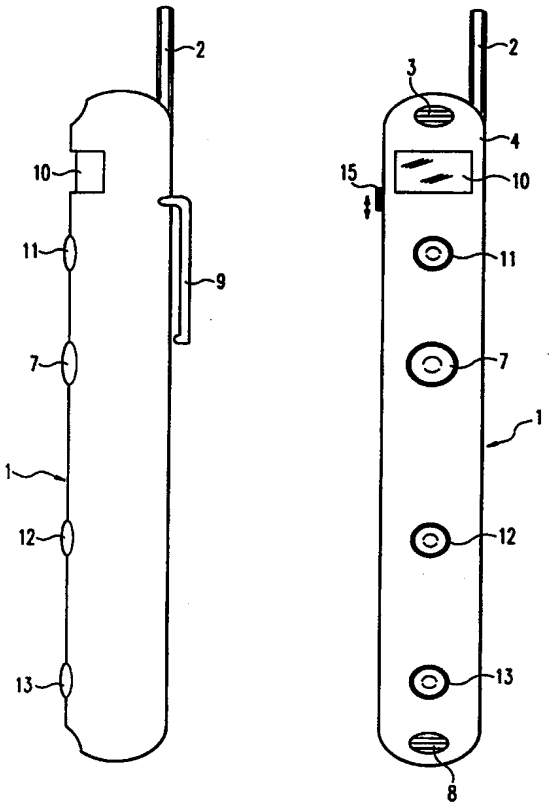
(54) Bezeichnung: MOBILFUNKGERÄT MIT VERRINGERTEM TASTENSATZ

(57) Abstract

The invention seeks to reduce the size of a mobile radio telephone (1) by reducing its key set (7, 11, 12, 13). The invention relates to a system and a method for mobile radio telephone transmission by means of a mobile unit (1) having just one or more direct connection keys (7, 11, 12, 13) to establish a connection. By pressing these keys once, a connection is established to the destination allocated to the respective direct connection key (7, 11, 12, 13). Connection (33) of the mobile unit (1) to a central communication device (30) is established by pressing a central key (7) on the mobile unit (1).

(57) Zusammenfassung

Die Erfindung schafft die Möglichkeit der Verkleinerung eines Mobilfunkgerätes (1) durch Verringerung des Tastensatzes (7, 11, 12, 13). Gemäß der Erfindung ist ein System und ein Verfahren zur Mobilfunkübertragung mittels eines Mobilteils (1) vorgesehen, das zum Verbindungsaufbau lediglich eine oder mehrere Direktverbindungs–Tasten (7, 11, 12, 13) aufweist, durch deren einmalige Betätigung jeweils eine Verbindung zu einem der jeweiligen Direktverbindungs–Taste (7, 11, 12, 13) zugeordneten Verbindungsziel aufgebaut wird. Durch Betätigung einer Zentraltaste (7) des Mobilteils (1) wird eine Verbindung (33) von dem Mobilteil (1) zu einer zentralen Vermittlungseinrichtung (30) aufgebaut.



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Inter nal Application No
PCT/EP 98/02566

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IPC 6 H04M1/66 H04M1/72

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Y		8-13

Y	PATENT ABSTRACTS OF JAPAN vol. 017, no. 287 (E-1374), 2 June 1993 & JP 05 014461 A (TOSHIBA CORP), 22 January 1993 see abstract	8-13

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Date of the actual completion of theinternational search	Date of mailing of the international search report
10 November 1998	18/11/1998

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Golzio, D

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 524 652 A (RANSOME IND LIMITED) 27 January 1993 see column 2, line 23 - column 3, line 11 see column 3, line 20-24 see column 3, line 31-54 see claims 1-3	2-7
A	see figure 1	1,8-13
A	US 4 969 180 A (WATTERSON MICHAEL R ET AL) 6 November 1990 see abstract see column 2, line 11 - column 5, line 7 see column 6, line 17 - column 7, line 60 see figures 1,4	1,2,10
A	GB 2 305 577 A (CLAYTON JOHN WEBSTER) 9 April 1997 see abstract; figures 1,2	1,2,10

1

INTERNATIONAL SEARCH REPORT

information on patent family members

Inter nal Application No
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0554625 A	11-08-1993	GB 2264209 A	18-08-1993
		DE 69225213 D	28-05-1998
		JP 6021885 A	28-01-1994
EP 0524652 A	27-01-1993	GB 2258584 A,B	10-02-1993
		US 5487108 A	23-01-1996
US 4969180 A	06-11-1990	NONE	
GB 2305577 A	09-04-1997	NONE	

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C. ALS WESENTLICH ANGESEHENE UNTERLAGEN

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X	EP 0 554 625 A (NOKIA MOBILE PHONES UK) 11. August 1993 siehe das ganze Dokument	1-7
Y		8-13

Y	PATENT ABSTRACTS OF JAPAN vol. 017, no. 287 (E-1374), 2. Juni 1993 & JP 05 014461 A (TOSHIBA CORP), 22. Januar 1993 siehe Zusammenfassung	8-13

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X	EP 0 524 652 A (RANSOME IND LIMITED) 27. Januar 1993 siehe Spalte 2, Zeile 23 - Spalte 3, Zeile 11 siehe Spalte 3, Zeile 20-24 siehe Spalte 3, Zeile 31-54 siehe Ansprüche 1-3	2-7
A	siehe Abbildung 1	1,8-13
A	US 4 969 180 A (WATTERSON MICHAEL R ET AL) 6. November 1990 siehe Zusammenfassung siehe Spalte 2, Zeile 11 - Spalte 5, Zeile 7 siehe Spalte 6, Zeile 17 - Spalte 7, Zeile 60 siehe Abbildungen 1,4	1,2,10
A	GB 2 305 577 A (CLAYTON JOHN WEBSTER) 9. April 1997 siehe Zusammenfassung; Abbildungen 1,2	1,2,10

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		JP 6021885 A	28-01-1994
EP 0524652 A	27-01-1993	GB 2258584 A,B	10-02-1993
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A1

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(30) Priority Data:
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(71)(72) Applicants and Inventors: WESBY, Philip, Bernard [GB/FI]; Viinirinne 8A, FIN–02630 Espoo (FI). WESBY VAN SWAAY, Eveline [NL/FI]; Viinirinne 8A, FIN–02630 Espoo (FI). PARKKALI, Rauli [FI/FI]; Urheilukatu 18 B 28, FIN–00250 Helsinki (FI). AHNLUND, Hans, Kjell, Olof [SE/FI]; Apollogatan 10 A 36, F–00100 Helsinki (FI).

(74) Agent: ROBSON, Aidan, John; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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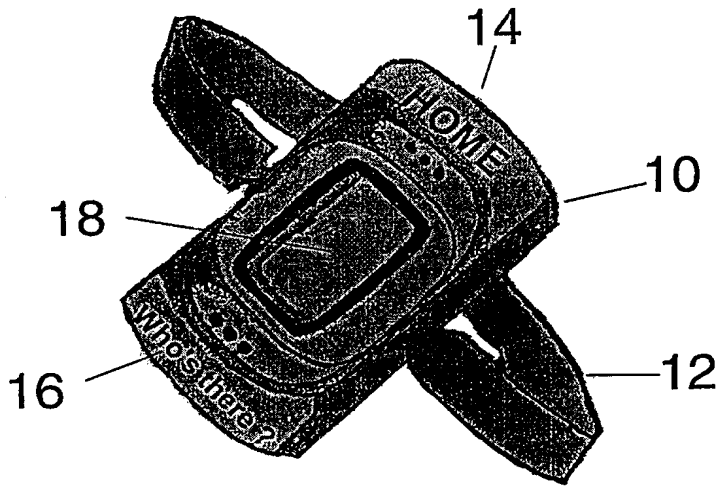
(54) Title: EMERGENCY MOBILE RADIO TELEPHONE WITH REDUCE KEY SET



(57) Abstract

A mobile radio telephone or portable hot link communicator is described which provides a simple, efficient and effective means of communication to enable a child or elderly person to communicate with a known parent, relative or friend carrying a standard mobile telephone. The hot–link communicator is wrist worn, or hangs from a cord around the wearer's neck, and it comprises a preprogrammed Module that links it with preferably only one other mobile or fixed telephone. The hot link communicator comprises the very basic functionality, and in some embodiments, no display, only a preprogrammed dialling button and an answer button. The hot link communicator makes possible communication between parents needing to communicate with their children and between supervising adults and elderly persons needing assistance in that the children and elderly persons do not need to input numbers in sequence via a key pad or search for a telephone in the rain and dark.

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EMERGENCY MOBILE RADIO TELEPHONE WITH REDUCE KEY SET

DESCRIPTION

BACKGROUND OF THE INVENTION

The invention relates to a portable communicating apparatus. More particularly, it relates to a portable communicating hot link apparatus which can provide a simple, efficient and effective means of communication between children and their parents, between elderly persons and caring relatives, and between mentally less-able individuals and supervising adults.

Children often disappear from view from parents causing anxiety and worry until their whereabouts is known again. Mobile telephone technology, such as GSM, DCS, and CDMA can provide an essential link between older children and their parents, but this is not the answer for younger children, elderly persons, or mentally less-able individuals. The mobile telephone is very valuable and might easily be lost or stolen from a child or from a mentally less-able individual. Similarly, elderly citizens may experience distress should they become lost in a crowd or lose sight of a supervising adult. In all these instances, children, mentally less able individuals, and elderly persons would quite likely experience difficulty in pressing the right sequence of keys on the mobile telephone, particularly if it were dark or in instances of bad weather.

Elderly persons often make appointments to meet supervising adults, such as their grown up children, but due to the fast commotion of life, they may miss the particular agreed meeting point or they may forget the time of the meeting. There is clearly a need for a communicating device which can address the communication technology requirements of this situation.

Current mobile phone technology products do not offer a very simple and cheap technology solution which addresses this essential one-to-one communication need.

In addition to these specific communication problem needs, there is a growing concern about the potentially harmful effect of electromagnetic radiation upon the developing brains of young children. Within this context, there is an opportunity to design a communication device for children which positions the radiating electromagnetic field of a communication device away from the close proximity of the brain. In this regard, parents who maintain the belief that mobile telephones present a health risk due to the radiating antenna, may rest secure in the knowledge that this risk can be significantly reduced.

Further to these limitations of existing technologies, and so far as is known, no portable communication apparatus is presently available which serves to offer a hot link communicator comprising the minimum mobile telephone functionality suited to the specific needs of this problem area.

OBJECTS OF THE INVENTION

Accordingly, it is an object of the present invention to provide a novel portable hot link communicating apparatus to meet the minimum specific requirements of parents wishing to have the facility of immediate communication with their children, between mentally less-able individuals and supervising adults, and between elderly persons and caring relatives.

It is a further object of the present invention to provide a novel portable hot link communicating apparatus which comprises a preprogrammed identity module comprising the number of the mobile or fixed telephone to which the hot link communicating device is linked.

It is a further object of the present invention to provide a novel portable hot link communicating apparatus which may comprise no key pad at all, other than a simple array of press pads to initiate a call or to answer an incoming call thereby minimising cost and functionality of the said communication apparatus.

It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which may comprise no display thereby minimising cost and functionality of the said communication apparatus.

It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which comprises a simple and effective way of attaching it to the wearer such as a wrist strap, a hip belt clip, or a neck cord. In this context, it is a further object of the invention to provide a portable hot link communicating apparatus which may function effectively while worn on the wrist such that the electromagnetic field of the radiating antenna is positioned away from the close proximity of the developing brains of young children while a call is in progress.

It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which may be moulded in any of a number of bright colours and designs which are attractive to young children and which are therefore readily worn by said children.

It is a further object of the present invention, to provide a novel portable hot link communicating apparatus which makes use of state of the art battery technology such that the hot link communicating device may be powered by a light-weight, low volume rechargeable battery with sufficient power to remain active for 24 hours.

Other objects and advantages of this invention will become apparent from the description to follow when read in conjunction with the accompanying drawings.

BRIEF SUMMARY OF THE INVENTION

Certain of the foregoing and related objects are readily-attained according to the present invention by the provision of a novel portable communicating apparatus or hot link communicator which serves to address the diverse requirements of communication between parents and children, between supervising adults and mentally less-able individuals, and between elderly persons and caring relatives.

The hot link communicator preferably comprises a basic mobile telephone circuit having no key pad or display and a rechargeable battery and antenna and a preprogrammed identity module linking it to a single mobile or fixed telephone. Where appropriate, in an alternative embodiment the hot link communicator is able to place a call to one of a plurality of separate telephone numbers comprising mobile telephones, fixed telephones or other hot link communicators. In one embodiment in which the hot link communicator is able to select one of two numbers, an additional separate call button is provided for this purpose. In an alternative embodiment, selection of one of a plurality of numbers is done using the single call initiate button and by sequentially stepping through the numbers stored in the preprogrammed identity module. The indication of which number is being selected can be shown on the screen of the hot link communicator in a number of embodiments; alternatively one of a number of coloured lights may be programmed to light up to avoid the expense of the screen.

To all extents and purposes, the hot link communicator, works identically as a mobile telephone when it is active and receives a call. It differs from

the complexity of a mobile telephone in that it comprises no key pad, and in its place, it comprises the circuitry to dial a number preprogrammed into its identity module.

The linked mobile telephone, or any mobile telephone comprising the same type of identity module, is thus easily employed to preprogram the unique number of any mobile or fixed telephone to which the hot link communicator is to be linked. This programming feature offers a significant degree in freedom in linking any particular hot link communicator with any particular mobile or fixed telephone. Furthermore, the same method may be employed to program two identity modules and thereby link two hot link communicators to each other.

Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawings which disclose one embodiment of the invention. It is to be understood, however, that the drawings are designed for the purpose of illustration only and that the particular description of the portable hot link communicating apparatus is given by way of example only and does not limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an illustration of one embodiment of the portable hot link communicating apparatus.

FIG. 2 is an illustration of the use of the hot link communicator within the context of the mobile telephone network.

FIG. 3 is a circuit block schematic indicating the necessary functional components of the hot link communicating apparatus.

FIG.4 comprises a schematic of a number of hot link mould shapes that may be used to maximise the acceptability of the product to children and adults.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now in detail to the drawings and in particular FIG. 1 thereof, therein illustrated is a portable hot link communicating apparatus embodying the present invention.

This device comprises a novel combination of existing technologies and features which make possible the existence of a new and improved portable hot link communicating apparatus to address the needs of parents wishing to have the facility of immediate communication with their children and vice versa, between supervising individuals and mentally less-able persons, and between elderly persons and caring relatives.

Furthermore this novel hot link communicator is able to receive and send calls to a preprogrammed mobile or fixed telephone by making use of simplified circuitry to select and call at least one number programmed into the identity module associated with the hot link communicator.

This unique combination of features greatly simplifies the hot link communicator circuitry and thereby reduces the cost of the device.

In a preferred embodiment, the invention is suitably employed within any specific mobile telephone system such as GSM, DCS, and CDMA. For the purpose of detailed description and in order to make clear the advantages and benefits of the hot link communicator, the particular embodiment of the GSM standard of mobile telephone technology is selected. Furthermore, the corresponding identity module within the GSM standard of mobile telephone technology, the subscriber identity module, or SIM card is described. This selection of GSM is made by way of example only and does not limit the

scope of the invention to the GSM standard since it is obviously and suitably adapted to DCS and CDMA telephone technologies by making the corresponding and obvious technical modifications to the hot link communicator circuitry.

In the preferred embodiment, the essential hardware components comprise a basic GSM telephone circuit, a rechargeable battery, a compact GSM antenna, a brightly coloured moulding, in the instance that it is intended for children, a preprogrammed SIM card, and two buttons: one to initiate a telephone call, the other to answer an incoming call, and a ringing tone generator as well as a basic two way microphone device.

With particular reference to FIG. 1 there is shown an illustration of one embodiment of the portable hot link communicating apparatus. The hot link communicator 10 comprises a wrist strap 12, a call button 14, and a call receive button 16. The optional central display 18 may comprise a digital watch and possibly some indication of the coverage level, as is standard in the display of mobile telephones. In a further embodiment the display 18 may indicate who is calling, in the instance that this is preprogrammed into the identity module. Furthermore, in a further embodiment, the display 18 can be used to indicate to which one of a plurality of stored telephone numbers the hot link communicator can initiate a call, in which case a particular sequence of key presses can be programmed to step through the list of stored numbers.

FIG. 2 shows an illustration of the ease of use of the hot link communicator within the context of mobile telephone technology.

FIG. 3 shows a circuit block schematic indicating the necessary functional components of the hot link communicating apparatus according to one embodiment based on the standard schematic for GSM. The hot link communicator differs from the standard GSM telephone

circuit in that the circuit has no keypad for entering numbers and in its place it makes use of a simplified button for automatically calling a number in the preprogrammed Identity Module.

FIG.4 shows a number of possible shapes of the hot link communicator into which the plastic housing could be moulded to make the communicator most acceptable to children.

The hot link communicator is intended to provide an emergency telephone connection using the simplest combination of technologies in a new and unique way. It is intended that the hot link communicator may contain levels of sophistication to suit different specific needs of individuals. As has been stated before, the hot link communicator may comprise a screen display. In addition, the hot link communicator may comprise the capability to initiate telephone calls to one of a number of telephone numbers stored in the preprogrammed identity module. In GSM this preprogrammed identity module is described as the SIM card or Subscribers Identity Module. Nevertheless, the SIM card is only mentioned by way of example and the invention is not limited to this particular module and any circuitry may be devised to achieve the necessary functionality of the hot link communicator pre-programed identity module.

In one alternative embodiment, the hot link communicator is able to select one of a plurality of numbers stored in the preprogrammed identity module. This can be realised in a number of ways such as programming the call initiate button 14 to toggle through the list of stored numbers wherein each is sequentially displayed on the screen. Alternatively, a number of coloured lights may be used to indicate from whom a call is being received or to whom a call is about to be initiated wherein one particular coloured light corresponds to a particular telephone number stored on the preprogrammed identity module. The use of coloured

lights may serve to be advantageous when the hot link communicator is to be used by a young child who is unable to recognised alphanumeric text on a screen display.

While only one embodiment of the present invention: the hot link communicator within the context of the digital GSM telephone system in particular, has been shown and described in detail, it will be obvious to those persons of ordinary skill in the art, that many changes and modifications may be made thereunto without departing from the spirit of the invention. For example, the hot link communicator may make use of any telephone technology such as CDMA, and DCS. Furthermore the hot link communicator may be stored in a battery recharging device when not worn such that it remains available for use when needed.

CLAIMS:

1. A portable hot link communicator device comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, characterised by:
a simplified array of press pads to initiate a preprogrammed unique subscriber telephone number and to answer an incoming call.

2. A portable hot link communicator device according to claim 1 further comprising;
a programmable identity module comprising at least one unique subscriber telephone number.

3. A portable hot link communicator device according to claim 2 wherein at least one button of said simple array of press pads automatically initiates a call of a unique subscriber telephone number from said preprogrammed identity module.

4. A portable hot link communicator device according to claim 2 wherein said programmable identity module is preprogrammed by a mobile phone comprising the same type of identity module.

5. A portable hot link communicator device according to claims 2 or 4 wherein said programmable identity module is preprogrammed to be connected to another portable hot link communicator device.

6. A portable hot link communicator device according to any of the preceding claims for use in a mobile telephone system.

7. A portable hot link communicator device according to claim 6 wherein said mobile telephone system is a --- (GSM).

8. A portable hot link communicator device according to claim 6 wherein said mobile telephone system is a --- (DCS).

9. A portable hot link communicator device according to claim 6 wherein said mobile telephone system is a Code Division Multiple Access (CDMA).

10. A portable hot link communicator device according to claim 7 wherein said programmable identity module is a subscriber identity module (SIM).

11. A portable hot link communicator device according to any of the preceding claims wherein said simple array of press pads comprises only two buttons, one button to initiate a preprogrammed call from said identity module comprising a unique subscriber telephone number and one button to answer said incoming call.

12. A portable hot link communicator device according to any of the preceding claims further comprising a screen display.

13. A portable hot link communicator device according to claim 12 wherein said central screen display further comprises a digital watch and/or some display indications of the coverage level standard for mobile telephone.

14. A portable hot link communicator device according to claims 12 or 13 wherein said display indicates who is calling when the number is programmed in said preprogrammed identity module.

15. A portable hot link communicator device according to claims 12 to 14 wherein said central display indicates to which one of a plurality of said stored preprogrammed unique subscriber telephone numbers a call is going to be initiated by stepping in the list of said stored preprogrammed unique subscriber telephone numbers.

16. A portable hot link communicator device according to claims 15 wherein a particular sequence of key presses are programmed to step in the list of said stored preprogrammed unique subscriber telephone numbers.

17. A portable hot link communicator device according to claims 15 wherein the call initiate button is programmed to toggle through the list of stored preprogrammed unique subscriber telephone numbers.

18. A portable hot link communicator device according to any of the preceding claims wherein coloured lights indicate which one of said stored preprogrammed unique subscriber telephone numbers is received and/or which one of said stored preprogrammed unique subscriber telephone numbers is to be initiated.

19. A portable hot link communicator device according to any of the preceding claims further comprising a brightly coloured moulding.

20. A portable hot link communicator device according to claim 19 further comprising a wrist strap.

21. A portable hot link communicator device according to claim 19 further comprising a neck strap.

22. A portable hot link communicator device according to claim 19 further comprising a belt clip.

23. A method for initiating a call from a portable hot link communicator device comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, the method characterised by the step of:

pre-programming a Programmable Identity Module in said portable hot link communicator device comprising a simplified array of press pads with at least one unique telephone number.

24. The method for initiating a call from a portable hot link communicator device in a telephone system according to claim 23 wherein said telephone system is a GSM and said Programmable Identity Module is a Subscriber Identity Module (SIM).

25. The method for initiating a call from a portable hot link communicator device in a telephone system according to claim 24 wherein said Programmable Identity Module is preprogrammed by a mobile phone comprising the same Subscriber Identity Module (SIM).

26. The method for initiating a call from a portable hot link communicator device in a telephone system according to claim 23 to 25 further comprising the steps of:

selecting a button from a simple array of press pads, pressing said selected button in order to initiate a call of a unique preprogrammed number from said Programmable Identity Module.

27. The method for initiating a call from a portable hot link communicator device in a telephone system according to claim 23 to 25 further comprising the steps of:

selecting a specific button from said simplified array of press pads;

pressing said selected button in order to display a stored preprogrammed unique subscriber telephone number;

stepping in the list of said stored preprogrammed unique subscriber telephone numbers by repeatedly pressing said specific button;

selecting one of said numbers from said list;

maintaining pressed said button or another button from said simple array of press pad for a few seconds in order to initiate the call of said unique stored preprogrammed number from said Programmable Identity Module.

28. The method for initiating a call from a portable hot link communicator device in a telephone system according to claim 24 to 27 further comprising the steps of:

switching or flashing on a coloured light from at least one different coloured lights corresponding to said unique telephone number.

29. A method for answering an incoming call at a portable hot link communicator device comprising a digital mobile telephone circuit, a rechargeable battery, a compact antenna, a ringing tone generator, a basic two-way microphone device for providing the facility of immediate communication or emergency telephone connection, the method characterised by the steps of:

indicating that a call is coming by the ringing tone generator of said portable hot link

communicator device comprising a preprogrammed identity module comprising at least one unique subscriber telephone number and a simplified array of press pads;

pressing a specific button from said simplified array of press pads;

communicating through said two-way microphone device.

30. The method for answering an incoming call at a portable hot link communicator device in a telephone system according to claim 29 wherein said telephone system is a GSM and said Programmable Identity Module is a Subscriber Identity Module (SIM).

31. A method for answering an incoming call at a portable hot link communicator device according to claim 29 or 30 further comprising the steps of:

preprogramming said Programmable Identity Module in said portable hot link communicator with at least one unique telephone number frequently calling said hot link communicator device.

32. The method for answering an incoming call at a portable hot link communicator device in a telephone system according to claim 31 wherein said Programmable Identity Module is preprogrammed by a mobile phone comprising the same Subscriber Identity Module (SIM).

33. A method for answering an incoming call, at a portable hot link communicator device according to claim 29 or 30 further comprising the step of:

switching or flashing on a coloured light from at least one different coloured lights corresponding to said received telephone call when programmed in said preprogrammed identity module.

34. A method for answering an incoming call at a portable hot link communicator device according to claim 29 or 30 further comprising the step of:

displaying who is calling when the calling number is programmed in said preprogrammed identity module.

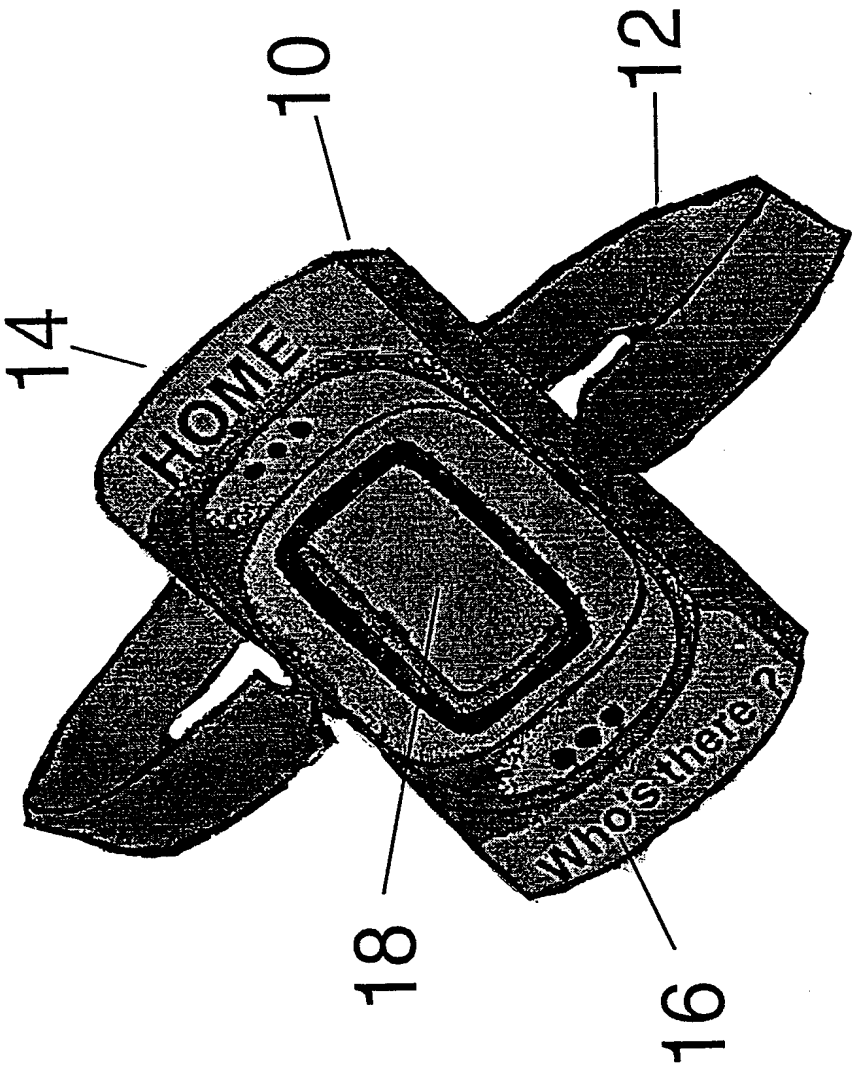

FIG.1

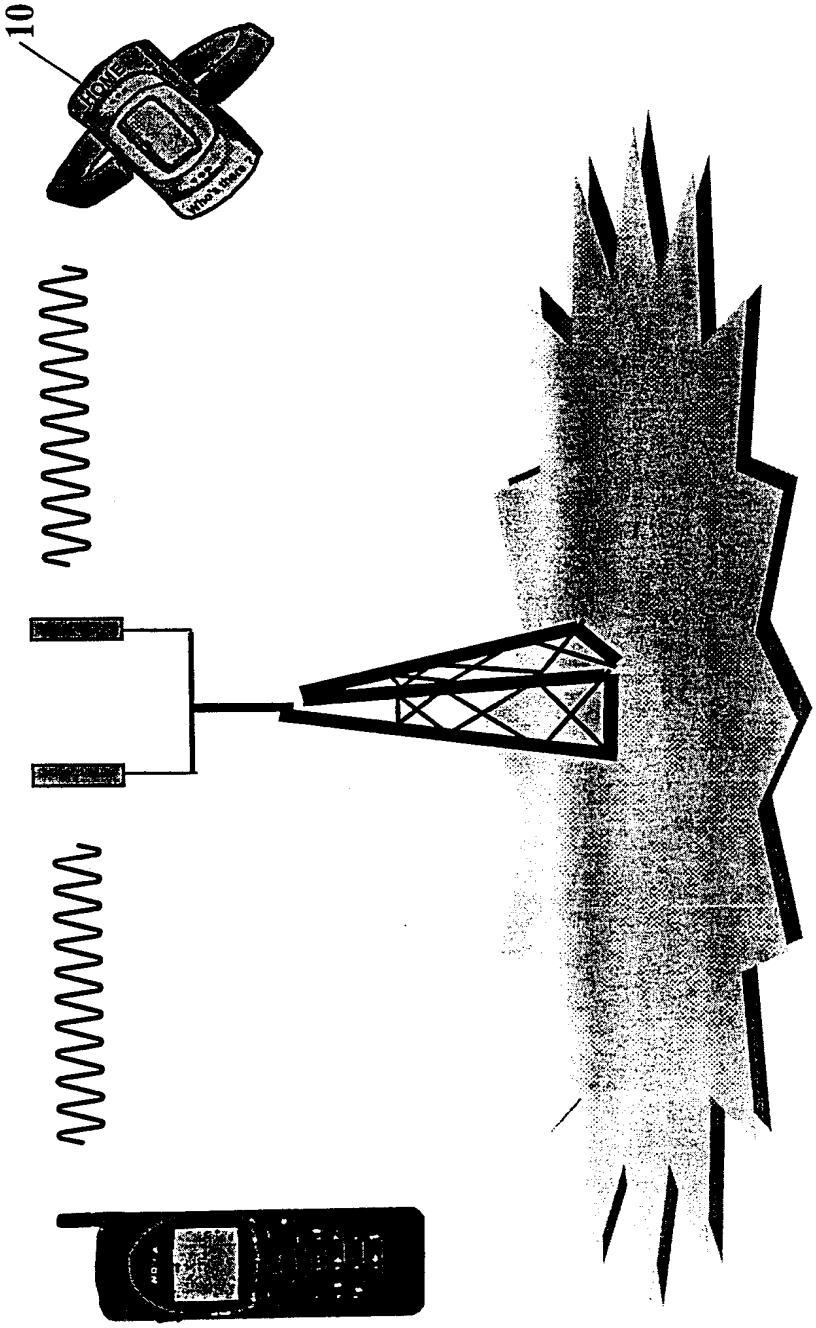

Fig. 2

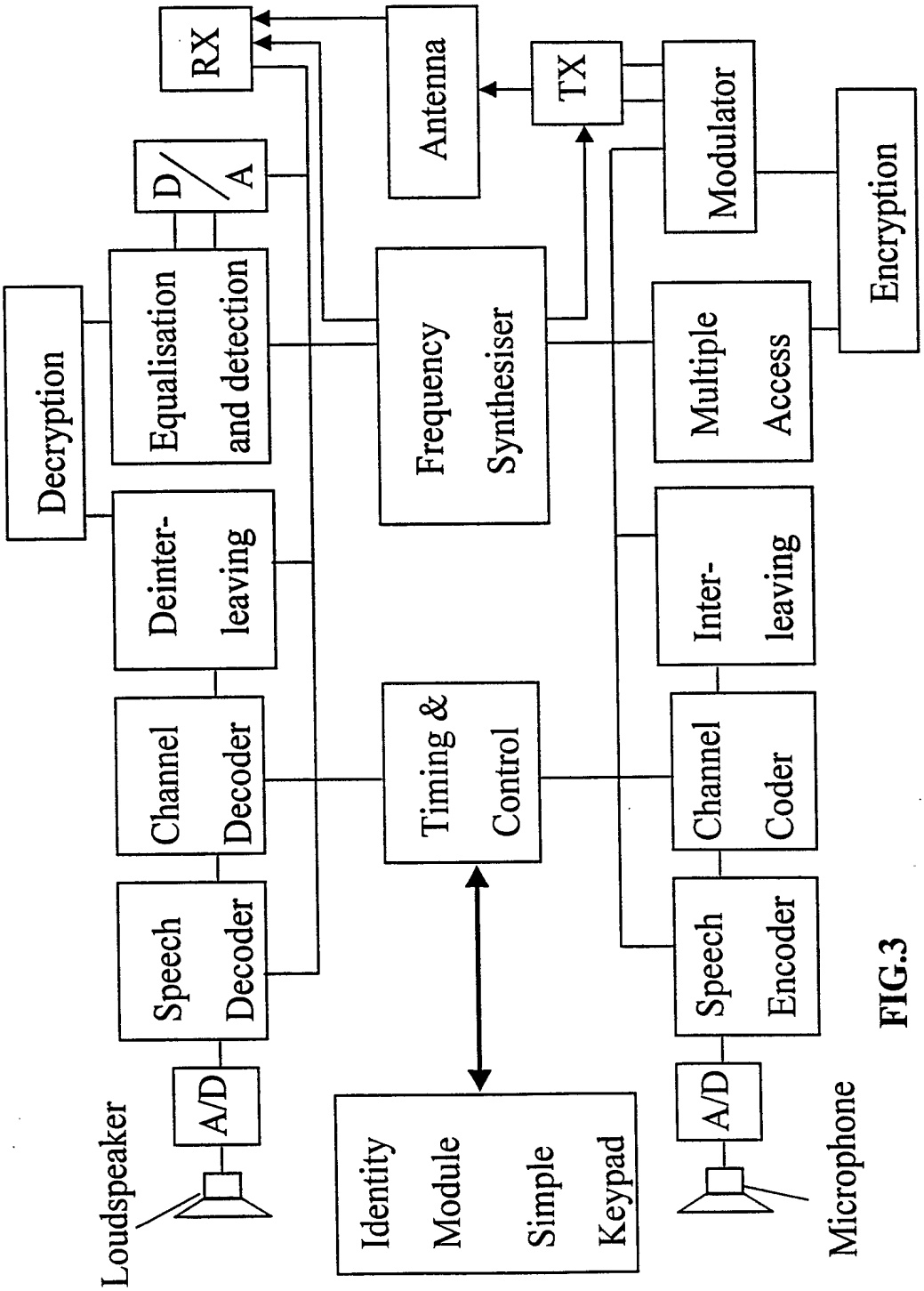
RX
Antenna
TX
Modulator
Encryption
D/A
Equalisation and detection
Frequency Synthesiser
Multiple Access
Decryption
Deinter-leaving
Inter-leaving
Channel Decoder
Timing & Control
Channel Coder
Speech Decoder
Speech Encoder
A/D
A/D
Loudspeaker
Identity Module
Simple Keypad
Microphone

FIG.3

FIG. 4

INTERNATIONAL SEARCH REPORT

Interr ıal Application No
PCT/GB 98/02715

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 H04M1/72 H04M1/66 H04M1/274

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 772 336 A (MATHIS MARCO ;STRAEULI ALFRED (CH)) 7 May 1997 see column 1, line 56 - column 2, line 47; figure 1 see column 3, line 1-5 see column 3, line 20-47; claims 3,4; figure 3	1-3,6,7, 19,22, 23,26
A	---	8,9,24, 30,31
X	EP 0 524 652 A (RANSOME IND LIMITED) 27 January 1993 see abstract see column 2, line 23-35 see column 3, line 1-5 see column 3, line 25-30	1,6,12
A	---	13-15
	-/--	

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
8 January 1999	20/01/1999

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	de Biolley, L

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 98/02715

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 097, no. 007, 31 July 1997 & JP 09 064950 A (HITACHI LTD), 7 March 1997 see abstract	1,2,29
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A,P	DE 196 25 581 A (PLAAS LINK ANDREAS DR RER NAT) 18 December 1997 see abstract see column 3, line 44-58	19-22
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A	EP 0 432 746 A (SIEMENS NIXDORF INF SYST) 19 June 1991 see abstract; claims 1,2; figure 1	18,33,34

1

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter ional Application No
PCT/GB 98/02715

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0772336 A	07-05-1997	NONE	
EP 0524652 A	27-01-1993	GB 2258584 A,B	10-02-1993
		US 5487108 A	23-01-1996
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WO 9851059 A	12-11-1998	DE 19718711 C	03-12-1998
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EP 0432746 A	19-06-1991	DE 3941161 A	20-06-1991
		DE 59009880 D	21-12-1995

Form PCT/ISA/210 (patent family annex) (July 1992)

Electronic Patent Application Fee Transmittal

Application Number:	11329212
Filing Date:	10-Jan-2006
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Filer:	Jonathan Lovely
Attorney Docket Number:	1503/105

Filed as Small Entity

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

Electronic Acknowledgement Receipt

EFS ID:	2691473
Application Number:	11329212
International Application Number:	
Confirmation Number:	6667
Title of Invention:	Programmable communicator
First Named Inventor/Applicant Name:	Eveline Wesby Van Swaay
Customer Number:	2101
Filer:	Jonathan Lovely
Filer Authorized By:	
Attorney Docket Number:	1503/105
Receipt Date:	09-JAN-2008
Filing Date:	10-JAN-2006
Time Stamp:	15:57:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$180
RAM confirmation Number	1252
Deposit Account	194972
Authorized User	

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Supplemental Response or Supplemental Amendment	1503_105_SupplementalResponse.pdf	120836 34e039d67053ec55628ed2b8f794ec5b3d5c454e	no	14
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Filed	IDS_Transmittal.pdf	136782 6a900f49dd249a8e433e448119f8d9fc67b2f92f	no	9
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Foreign Reference	BI_EP432746.pdf	545101 c2162c4fb09cb1b9a627352d50d1b781a8d6e0e6	no	9
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4	Foreign Reference	BJ_EP524652.pdf	332759 4df30aa696fd3abb73c5f9217cae27cb2caac03e	no	6
Warnings:					
Information:					
5	Foreign Reference	BK_JP1995087211.pdf	550796 3b811822b800b57c2c62285bb22641975ad44bbf	no	9
Warnings:					
Information:					
6	Foreign Reference	BL_EP772336.pdf	309294 1eb3443de21ce8ab944b1611778b4e16d2e7beb6	no	8
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7	Foreign Reference	BM_WO1997023104.pdf	1342855 4652dcf7f66373fa66a9b9cf7e18c440e564e727	no	39
Warnings:					
Information:					

8	Foreign Reference	BN_DE19625581.pdf	382564 391f9901b8781def4617c5f78e39e3af06434a46	no	6
Warnings:					
Information:					
9	Foreign Reference	BO_EP1013055.pdf	186906 e0c05d684fee2c9221a5a980cc6d1bc9d33fdc5f	no	15
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Information:					
10	Foreign Reference	BP_WO1998051059.pdf	1248472 2cc25afc2f2b4fb849b1f57b48df14619f10d552	no	30
Warnings:					
Information:					
11	Foreign Reference	BQ_WO1999013629.pdf	980246 6e8bc706b0f23aae0875273d89c9181fd756efce	no	25
Warnings:					
Information:					
12	NPL Documents	BR_Abstract_JP07087211.pdf	48148 b6982b8139d8302a32d5b21b10490041fde195f8	no	2
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13	NPL Documents	BS_PatentAbstract_JP09064950.pdf	38798 eeacc8d7a0ff68480891d663798879fa04bc9be7	no	1
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14	NPL Documents	BT_ExaminationReport_EP01945162.pdf	92920 bbb7e706037a66e1a4d46562cbe3e044e2e3cc23	no	2
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Information:					
			Total Files Size (in bytes):	6324622	

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eveline Wesby Van Swaay

Application No.: 11/329,212
Filed: 01/10/2006
For: Programmable Communicator

Group No.: 2612
Examiner: Nguyen, Nam V.
Confirmation No.: 6667

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is a small entity. A statement was already filed.

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for one month:

Fee: $60.00

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col. 1)		(Col. 2)		(Col. 3)		SMALL ENTITY			
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE			ADDIT. FEE
TOTAL	50	–	20	=	30	x	$ 25.00	=	$	750.00
INDEP.	4	–	3	=	1	x	$ 105.00	=	$	105.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM						+	$ 0.00	=	$	0.00
							TOTAL ADDIT. FEE		$	855.00

Total additional fee for claims required $855.00

FEE PAYMENT

5. Authorization is hereby made to charge the amount of $915.00 to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

FEE DEFICIENCY

6. If an additional extension and/or fee is required, charge Account No. 19-4972.

If an additional fee for claims is required, charge Account No. 19-4972.

Date: November 30, 2007

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01503/00105 781368.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Wesby Van Swaay	Att'y Docket:	1503/105
Appln. No.:	11/329,212	Filing Date:	January 10, 2006
Customer No.:	02101	Conf. No.:	6667
Examiner:	Nguyen, Nam V.	Art Unit:	2612
Invention:	PROGRAMMABLE COMMUNICATOR		

FILED BY USPTO ELECTRONIC FILING SYSTEM

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE

Dear Sir:

Applicant respectfully submits this response and requests that the following amendments and remarks, in response to the Non-Final Office Action mailed August 3, 2007 be considered.

Listing of the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper

LISTING OF THE CLAIMS

1 – 20 (Cancelled)

21. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate over a communications network;

a programmable identity module, the programmable identity module being remotely programmable and having a unique identifier associated with the programmable communicator;

a processing module configured to receive and authenticate an at least one transmission from a programming transmitter, the at least one transmission including at least one telephone number or IP address, wherein the processing module is configured to authenticate the at least one transmission by determining if the at least one transmission contains the unique identifier; and

a memory module configured to store the at least one telephone number or IP address from the authenticated transmission as one of a plurality of permitted callers.

22. (New) A programmable communicator device according to claim 21, wherein the at least one transmission is coded and the processing module is configured to process the coded transmission and permit only transmissions containing a coded number.

23. (New) A programmable communicator device according to claim 21, wherein the programming transmitter is a portable device connected to the communications network.

24. (New) A programmable communicator according to claim 21 further comprising:

a GPS module configured to determine at least one location of the programmable communicator and store the at least one location into the GPS module's memory; and

wherein the programmable communicator is further configured to receive and authenticate a request and transmit the at least one location to at least one of the plurality of stored permitted callers in response to the authenticated request.

25. (New) A programmable communicator according to claim 21 further comprising:

a location processing module configured to process a location request received and authenticated by the programmable communicator and generate at least one signal representative of the programmable communicator's location according to a remote locating technology,

wherein the programmable communicator is further configured to transmits the at least one signal representative of the programmable communicator's location to a location determination center in response to the authenticated location request, the location determination center configured to determining the location of the programmable communicator based on the at least one signal.

26. (New) A programmable communicator according to claim 21 further comprising:

a sensor module configured to monitor at least one condition and prompt the programmable communicator when the at least one condition meets a threshold limit, wherein the programmable communicator is further configured to send a transmission to at least one of the plurality of stored permitted callers in response to the prompt.

27. (New) A programmable communicator according to claim 21 further comprising:

a back-up communication device located within an attachment, the back-up communication device configured to prompt the programmable communicator if the attachment is broken or opened or if there is a change in status which crosses a threshold, wherein the programmable communicator is further configured to send at least one transmission to at least one of the plurality of stored permitted callers in response to the prompt.

28. (New) A programmable communicator according to claim 27, wherein the attachment is a wrist strap.

29. (New) A programmable communicator according to claim 27, wherein the attachment is a smart clothes attachment.

30. (New) A programmable communicator according to claim 21 further comprising:

a secondary power supply configured to provide power to the programmable communicator if a primary power supply fails or is removed, wherein the programmable communicator is further configured to transmit an alarm message including a location of the programmable communicator if the primary power supply fails or is removed.

31. (New) A programmable communicator according to claim 21 wherein the programmable communicator is linked to at least one remote device.

32. (New) A programmable communicator according to claim 31, wherein the programmable communicator is further configured to receive a command from an authenticated programming transmitter, the command prompting the programmable communicator to instruct the at least one remote device to read the command, wherein the at least one remote device is configured to perform a task and monitor at least one

parameter in response to the command, the at least one remote device further configured to periodically store monitored parameter data to the memory module.

33. (New) A programmable communicator according to claim 32, wherein the programmable communicator is further configured to relay the stored monitored parameter data to at least one of the plurality of stored permitted callers.

34. (New) A programmable communicator according to claim 33, wherein the stored monitored parameter data is relayed periodically.

35. (New) A programmable communicator according to claim 34, wherein the stored monitored parameter data is relayed in response to a request from an external device associated with at least one of the plurality of stored permitted callers.

36. (New) A programmable communicator according to claim 32, further comprising:

a status report module configured to send a transmission to an external device associated with at least one of the plurality of stored permitted callers when the programmable communicator detects a change in status of the at least one remote devices.

37. (New) A programmable communicator according to claim 36, further comprising:

an alarm module configured to send an alarm message to the external device associated with at least one of the plurality of stored permitted callers, the alarm message indicating a current status of the at least one remote device.

38. (New) A programmable communicator device according to claim 21, wherein the programmable communicator is further configured to communicate between at least one remote monitoring device and at least one interfaced device.

39. (New) A programmable communicator device according to claim 38, wherein the interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

40. (New) A programmable communicator device according to claim 38, wherein the at least one interfaced device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

41. (New) A programmable communicator device according to claim 38, wherein at least one interfaced device is linked to the programmable communicator via a wireless connection.

42. (New) A programmable communicator device according to claim 41, wherein

the wireless connection comprises a wireless interface, wherein the programmable communicator is further configured to gather data from the at least one remote device, process the data, and send the processed data to at least one of the plurality of stored permitted callers.

43. (New) A programmable communicator device according to claim 21, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

44. (New) A programmable communicator device according to claim 21, wherein the programmable communicator device is integrated with a wireless telephone such that the programmable communicator and the wireless telephone form a single device.

45. (New) A programmable communicator device according to claim 21, wherein the at least one transmission can be sent using a messaging protocol such as a mobile telecommunications Short Message Service (SMS) or via a packet switching network such as GPRS within the telecommunications standard of GSM or WCDMA or US-TDMA.

46 (New) A programmable communicator device according to claim 21, further comprising:

a programming transmitter located in the vicinity of the programmable communicator, and configured to receive communications over the Internet and programming the programmable communicator using at least one of a wireless communication, infrared light, or a Bluetooth radio link.

47 (New) A programmable communicator device according to claim 21, wherein,

the programmable communicator is further configured to receive data from at least one data monitoring devices and transmit the received data to at least one of the plurality of stored permitted callers.

48 (New) A programmable communicator device according to claim 21, wherein the at least one telephone number or IP address may correspond to a central communications point in the telecommunications network.

49. (New) A programmable communicator device comprising:

a wireless communications circuit having an antenna and configured to communicate between at least one remote monitoring device and at least one interfaced device over a communications network;

a programmable identity module, the programmable identity module being remotely programmable and having a unique identifier;

a memory module configured to store at least one telephone number or IP address of the at least one remote monitoring center as one of a plurality of permitted callers; and

a processing module configured to receive data from the at least one interfaced device and determine if the received data indicates a change in status of the at least one interfaced devices that crosses a threshold, wherein the processing module is further configured to send a transmission to the at least one remote monitoring device if the change in status crosses the threshold, the transmission including the unique identifier.

50. (New) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to an alarm condition.

51. (New) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response to a request from the programmable communicator.

52. (New) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent in response a request from the at least one remote monitoring device.

53. (New) A programmable communicator device according to claim 49, wherein the data received from the at least one interfaced device is sent periodically.

54. (New) A programmable communicator device according to claim 49, wherein the at least one interfaced device is a medical device configured to monitor at least one from the group consisting of body temperature, blood pressure, periodic or continuous electrocardiogram heart rhythm, blood glucose concentration, blood electrolyte concentration, kidney function, liver function, and labor contractions.

55. (New) A programmable communicator device according to claim 49, wherein the at least one interface device is at least one of a domestic appliance, a vending machine, a door status monitoring device, a window monitoring device, a bicycle monitoring device, a life vest monitoring device, a ski jacket monitoring device, a pressure monitoring device, a proximity detector, and a fire alarm.

56. (New) A programmable communicator device according to claim 49, wherein the received data includes data relating to at least one of movement of the interfaced device, breakage of the interfaced device, changes in pressure of the interfaced device, changes in temperature of the interfaced device, variations in detectible human skin characteristics, changes in status of the interfaced device, motion changes, changes in infra red radiation, changes in sound levels, changes in sound thresholds, changes in humidity, changes in pressure, voice capture and recognition, and changes in sound thresholds.

57. (New) A programmable communicator device according to claim 49, wherein at least one interfaced devices is linked to the programmable communicator via a wireless connection.

58. (New) A programmable communicator device according to claim 49, wherein the at least one telephone number or IP address stored as one of the plurality of permitted callers may be updated when the programmable communicator receives an authenticated transmission from a programming transmitter.

59. (New) A programmable communicator device according to claim 49, wherein the programming transmitter is a device having a web interface.

60. (New) A method for remotely programming and monitoring a communicator device comprising:

receiving at least one transmission from a programming transmitter in a processing module, the transmission including at least one telephone number or IP address;

authenticating the least one transmission by determining if the at least one transmission includes a unique identifier associated with the communicator device; and

storing the at least one telephone number or IP address contained within the at least one transmission into memory.

61. (New) A method according to claim 60, wherein the memory includes a permitted callers list and wherein the at least one telephone number or IP address is stored within the permitted callers list.

62. (New) A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

determining the location of the programmable communicator using a GPS module;

transmitting the location of the programmable communicator to at least one telephone number or IP address stored in memory.

63. (New)A method according to claim 60 further comprising:

receiving a location request;

authenticating the location request by determining if the location request includes the unique identifier;

processing the authenticated location request; and

generating at least one signal representative of the programmable communicator's location;

transmitting the at least one signal to a location determination center, wherein the location determination center determines programmable communicator's location based on the at least one signal representative of the programmable communicator's location.

64. (New) A method according to claim 60 further comprising:

monitoring at least one condition;

prompting the programmable communicator when the at least one condition meets a threshold limit; and

sending a transmission to at least one of the telephone numbers or IP addresses stored within the memory, the programmable communicator sending the transmission in response to the prompt.

65. (New) A method according to claim 60, further comprising:

receiving a command from an authenticated programming transmitter, the command prompting the command prompting the programmable communicator to instruct at least one remote device linked to the programmable communicator to read the command;

instructing the at least one remote device to read the command in response, wherein the at least one remote device performs a task and monitors at least one parameter in response to the command, the at least one remote device periodically storing monitored parameter data to a memory module;

relaying the stored monitored parameter data to at least one of the telephone numbers or IP addresses stored in memory.

66. (New) A method according to claim 65 further comprising:

sending a status report transmission to an external device associated with the at least one telephone number or IP address stored in memory when the programmable communicator detects a change in status of the least one remote devices.

67. (New) A method according to claim 66 further comprising:

sending an alarm message to the external device, the alarm message indicating a current status of the at least one remote device.

68. (New) A method for using a programmable communicator comprising:

establishing communication between the programmable communicator, at least one remote monitoring device, and at least one interfaced device over a communications network;

storing at least one telephone number or IP address of the at least one remote monitoring device in memory;

receiving data from the at least one interfaced device;

processing the data received from the at least one interfaced device to determine whether received data indicates a change in status of the least one interfaced device that crosses a threshold; and

sending a transmission to the at least one remote monitoring device if the change in status crosses the threshold.

69. (New) A method according to claim 68 further comprising:

sending a request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

70. (New) A method according to claim 68 further comprising:

receiving a request for data from the at least one remote monitoring devices; and

sending the request for data to the at least one interfaced device, the at least one interfaced device sending the data in response to the request.

REMARKS

Applicants wish to thank the Examiner for the review of the present application. Applicants have cancelled claims 1-20 and added new claims 21-70. Thus, claims 21-70 are currently pending in the application. As discussed below, new claims 21-48 and 60-67 are similar to the originally filed claims. Additionally, support for new claims 49-59 and 68-70 can be found at paragraphs 34, 35, 52, 62, 67, 68, 72, 87, 90-92.

Discussion of Prior Art Cited in Office Action

Although the originally filed claims are no longer pending in the application and the rejections made in the Office Action dated August 3, 2007 are now moot, Applicants would like to provide to following comments regarding the Borgstahl and Anderson references in relation to new claims 21-48 and 60-67, which resemble original claims 1-20.

New claim 21 defines, in relevant part, a programmable communicator device having a wireless communications circuit, a programmable identity module with a unique identifier, a processing module, and a memory module. The processing module is configured to receive and authenticate transmissions from a programming transmitter. The processing module is configured to authenticate the transmission by determining if the transmission includes the unique identifier associated with the programmable communicator. The transmission also includes at least one telephone number or IP address, which are stored as one of a plurality of permitted callers if the transmission is able to be authenticated.

Borgstahl (US Patent Number 6,424,623) fails to teach such a device. Rather Borgstahl teaches a virtual queuing system using short-range wireless links. In particular, Borgstahl uses peer to peer devices that, when in close enough proximity, connect to one another (Col. 4, lines 41-50). When the peer to peer devices connect, each device sends the other devices a needs/capabilities message that indicates the functions that the device is able to perform (e.g., capabilities) and the functions that the device needs (e.g., needs) (col. 6, lines 44-60). The peer to peer devices do not send a transmission containing at least one telephone number or IP address as required by new claim 21.

Additionally, although Borgstahl's transmissions include an authorization key and Borgstahl performs an authorization step, the Borgstahl's authorization key is different from the unique identifier described in new claim 21. In particular, Borgstahl's authorization key is not a unique identifier associated with the receiving device (e.g., the programmable communicator described in new claim 21). Rather, because the peer devices within Borgstahl broadcast a need/capability message to any other peer device within the detection zone, the sending devices within Borgstahl do not necessarily know which and how many devices will receive the message. In other words, Borgstahl's authorization key must be generic so that any and all devices within the detection zone can receive and authorize the needs/capabilities message. This is in direct contrast to claim 21, which requires that the processing module authenticate on the basis of an identifier that is unique to and associated with a particular receiving device.

Anderson (US Patent Number 5,995,603) also fails to teach such a device and fails to teach the deficiencies of Borgstahl. In relation to the originally filed claims, the office action adds Anderson suggesting that Anderson teaches memory configured to store telephone numbers or IP addresses received in transmissions from an authenticated caller. Applicants respectfully disagree. Rather, Anderson merely teaches a telephone call screening device that receives telephone calls, extracts the caller-ID information (e.g., name, phone number, etc.), and compares the caller-ID information to a pre-stored list of authorized numbers. If the caller-ID information matches an entry in the pre-stored list, Anderson allows the phone to ring. Otherwise Anderson prevents the call from ringing normally.

Anderson creates the pre-stored list in a variety of ways. First, the user may simply add the telephone number to the list using the keypad. This clearly cannot constitute the authenticated transmission required by new claim 21. Alternatively, in Anderson, the user may press the "add" button when the system is receiving an incoming call. However, this also fails to constitute the authenticated transmission required by original claim 1 or new claim 21. In particular, the transmission does not include the unique identifier required by the pending claims. Additionally, Anderson does not include the claimed processing module to authenticate the transmission and then store the

telephone number as one of the plurality of permitted callers. Instead, Anderson merely displays the telephone number and the user must then manually add the telephone number to the list by pressing "add".

Additionally, to the extent that Anderson authenticates an incoming call, as mentioned above, Anderson merely compares the incoming telephone number to the callers list. Therefore, even if the comparison to the callers list constitutes authentication, Anderson is comparing an identifier associated with the sending device, not the receiving device. Nowhere does Anderson teach or suggest authenticating the incoming transmission/telephone call based on the unique identifier associated with the receiving device.

Therefore, Borgstahl and Anderson fail to teach or suggest, alone or in combination, all of the limitations of new claim 21. Accordingly, new claim 21 is allowable over Borgstahl and Anderson. Additionally, dependent claims 22-48, which depend from new claim 21 are allowable over Borgstahl and Anderson for at least the same reasons.

In a manner similar to that described above with respect to new claim 21, new claim 60 defines a method including the steps of receiving a transmission including a unique identifier associated with the programmable communicator, authenticating the transmission, and storing the telephone numbers and/or IP addresses contained within the transmission in memory. Accordingly new claim 60 is allowable over Borgstahl and Anderson for at least the same reasons as discussed above with regard to new claim 21. Additionally, dependent claims 61-67, which depend from claim 60 are also allowable for at least the same reasons.

It is believed that the application is now in order for allowance and Applicants respectfully request that a notice of allowance be issued. Applicants believe that a one month extension of time is required and hereby request that the associated fees be charged to Deposit Account No. 19-4972. Applicants also request that any other fee required for timely consideration of this application be charged to Deposit Account No. 19-4972. Applicants also request that the examiner contact applicant's attorney, Jonathan Lovely, if it will assist in processing this application through issuance.

DATE: November 30, 2007

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

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01503/00105 767056.1

Practitioner's Docket No. 1503/105 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wesby Van Swaay, Eveline
Application No.: 11/329,212 Group No.: 2612
Filed: January 10, 2006 Examiner: Nguyen, Nam V.
For: **Programmable Communicator**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant:
(1) Within three months of the filing date of a national application;
(2) Within three months of the date of entry of the national stage as set forth in section 1.491 in an international application; or
(3) Before the mailing date of a first Office action on the merits, whichever event occurs last." 37 C.F.R. section 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. section 1.56(a).
"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
(1) each inventor named in the application;
(2) each attorney or agent who prepares or prosecutes the application; and
(3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. section 1.56(c).

NOTE: The "duty as described in section 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by sections 1.97(b) - (d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O.G. 13-25 at 17.

WARNING: *"No information disclosure statement may be filed in a provisional application." 37 C.F.R. section 1.51(b).*

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: discard unused sections and number pages consecutively)

1. [x]Preliminary Statements
2. [x]Forms PTO/SB/08A and 08B (substitute for Form PTO-1449)
3. [ ]Statement as to Information Not Found in Patents or Publications
4. [ ]Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. [ ]Cumulative Patents or Publications
6. [x]Copies of Listed Information Items Accompanying This Statement
7. [ ]Concise Explanation of Non-English Language Listed Information Items
   - 7A. [ ]EPO Search Report
   - 7B. [ ]English Language Version of EPO Search Report
8. [ ]Translation(s) of Non-English Language Documents
9. [ ]Concise Explanation of English Language Listed Information Items (Optional)
10. [x]Identification of Person(s) Making This Information Disclosure Statement

(complete the following, if appropriate)

Sections , respectively, have been continued on ADDED PAGE(S).

NOTE :"Once the minimum requirements are met, the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

Section 1. Preliminary statements

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. section 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Wesby Van Swaay, Eveline	Attorney Docket:	1503/105
Serial No:	11/329,212	Art Group Unit:	2612
Date Filed:	January 10, 2006	Examiner Name:	Nguyen, Nam V.
Invention:	**Programmable Communicator**		

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	**Reference Number**	**Document Number**	**Issue Date**	**Inventor**	**Class/Subclass**
	BC	**US 5,974,312**	**Oct. 26, 1999**	**Hayes, Jr., et al.**	**455/419**

FOREIGN PATENT DOCUMENTS						
Examiner Initials	**Reference Number**	**Country Code**	**Document Number**	**Publication Date**	**Patenteee or Applicant**	**Class/Subclass**
	BD	**WO**	**99/34339**	**8 July 1999**	**Bennett et al.**	**G08B**
	BE	**WO**	**00/56016**	**21 Sept. 2000**	**Albrecht, Thomas**	**H04L**
	BF	**WO**	**00/70889**	**23 Nov. 2000**	**Saltzstein, Wm. E. et al.**	**H04Q**
	BG	**WO**	**01/03414**	**11 Jan. 2001**	**Crookham, Joe P. et al.**	**H04M**

Examiner Signature: _____

Date Considered: _____

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.

Section 6. Copies of Listed Information Items Accompanying This Statement

NOTE: 37 C.F.R. section 1.98(a)(2) requires that any information disclosure statement filed under section 1.97 shall include: "A legible copy of: (1) Each U.S. and foreign patent; (ii) Each publication or that portion which caused it to be listed; and (iii) All other information or that portion which caused it to be listed, except that no copy of a U.S. patent application need be included . . ."

NOTE: The wording in section 1.98(a)(2)(iii) makes it clear that the requirement to submit a copy of each item of information listed in an information disclosure statement does not apply to the citation of a U.S. patent application. Notice of January 9, 1992, 1135 O.G. 13-25, at 14.

Legible copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement.

(complete the following, if applicable)

[x]Exception(s) to above:

U.S. patent citations are not included pursuant to the United State Patent and Trademarks Office's September 21, 2004 waiver of the copy requirement in 37 CFR 1.98 for cited pending U.S. patent citations when the patent citations are available in the USPTO's IFW system.

[ ]Items in prior application, from which an earlier filing date is claimed for this application, as identified in Section 4.

[ ]Cumulative patents or publications identified in Section 5.

Section 10. Identification of Person(s) Making This Information Disclosure Statement

The person making this certification is

(check each applicable item)

(a) [ ]the inventor(s) who signs below

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

(b) [ ]an individual associated with the filing and prosecution of this application (37 C.F.R. section 1.56(c))

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

(c) [x] the practitioner who signs below on the basis of the information:

(check each applicable item)

[ ] supplied by the inventor(s).

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(57) Abstract

A home automation and security system is provided in which a home automation and security controller in a customer premises is coupled with a remotely located central control facility using a continuous connectivity access line providing a data channel separate from a voice channel. The controller at the customer premises is responsible for monitoring and applying control signals to devices in the home and for supporting a human interface. The remotely located central control facility is responsible for providing the computational and database resources to the controller. By redistributing functionality, the network–based structure of this home automation and security system can overcome the disadvantages of conventional home automation and security systems.

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System and Method for Home Automation and Security

Technical Field

The present invention relates generally to telecommunication services and more specifically to a new system and method for home automation and security.

Background

Home automation and security systems currently are controlled by equipment installed at a customer premises. By programming an in-house device, a user controls the operation of appliances connected to the system. For example, a user can program an in-house device to turn on a light at a specific time. The in-house device also can monitor sensors located throughout the house and can sound an alarm or phone a monitoring agency when the sensors are triggered. Some systems offer a remote-access feature allowing a user to access the in-house device through the public switched telephone system.

There are several disadvantages associated with conventional home automation and security systems. First, most systems use relatively simple user interfaces that limit the user's control over the system. To provide a more elaborate and friendly user interface, some systems incorporate, or provide a connection to, a device comparable to a personal computer. While these systems provide the user with better home automation and security functionality, their high cost limits their wide-spread use. Additionally, changing built-in control programs typically requires a change to the in-house equipment itself. Further, using the remote-access feature of the conventional systems interferes with normal use of the home telephone.

There is, therefore, a need for a new system and method for home automation and security that will overcome the disadvantages described above.

Brief Description of the Drawings

Figure 1 is an illustration of a station set of a preferred embodiment.

Figure 2 is a block diagram of a home automation and security system of a preferred embodiment.

Figure 3 is a block diagram of a home automation and security system of a preferred embodiment that uses data-over-voice modems.

Figure 4 is a flow chart of a home automation method of a preferred embodiment.

Figure 5 is a flow chart of a home security method of a preferred embodiment

Figure 6 is an illustration of a dedicated user interface device of a preferred embodiment.

Figure 7 is a block diagram of a home automation and security system of a preferred embodiment that uses a digital subscriber line.

Detailed Description of the Presently Preferred Embodiments

Now turning to the drawings, Figure 2 is a block diagram of a home automation and security system 200 of a preferred embodiment. As shown in Figure 2, a home automation and security controller 210 in a customer premises 220 is coupled with a remotely-located central control facility 230 using a continuous connectivity access line 240. In one preferred embodiment, the continuous connectivity access line is supported by data-over-voice (DOV) modems, while in another preferred embodiment the access line is supported by a Digital Subscriber Line (xDSL). In both embodiments, the access line 240 has a data channel separate from a voice channel. Unlike conventional systems, the home automation and security controller 210 at the customer premises 220 is responsible for monitoring and applying control signals to devices in the home and for supporting a human interface, while the computational and database resources of the system 200 are provided to the controller 210 (and controllers of other customer premises) by the remotely-located central control facility 230.

With such redistributed functionality, the network-based structure of this home automation and security system overcomes the disadvantages of conventional home automation and security systems. First, the system described below offers a more intensive computational facility as compared to current systems. Because the computational resources are centralized, updating or replacing control software does not require changes to customer premises equipment. Further, the system has access

to external databases, allowing more powerful and versatile forms of home automation and security. Second, this system offers a more sophisticated user interface (such as an elaborate graphical or speech-based user interface) without requiring the use of a personal computer or comparably powerful and expensive dedicated processor at the customer premises. Third, unlike the remote access feature of a conventional system which typically requires input of touch-tone signals with only tones as prompts, the remote access feature of these preferred embodiments supports user-friendly Interactive Voice Response units and allows users to access their home system using a personal computer. Additionally, because the access line has a data channel separate from the voice channel, the remote access feature of these preferred embodiments does not interfere with normal use of the home telephone.

Referring again to the drawings, Figure 3 is a block diagram of a home automation and security system 300 of a preferred embodiment in which the continuous connectivity access line is supported by data-over-voice (DOV) modems. Figure 3 shows equipment at a customer premises 305 and equipment remotely located from the customer premises 305. The customer premises 305 comprises a home automation and security controller 310, a telephone 315, and a user-interface controller 317, all of which are coupled with a first data-over-voice modem 320. As used herein, the term "coupled with" means directly coupled with or indirectly coupled with through one or more components. The first data-over-voice modem 320 simultaneously transports voice and data traffic (nominally 56Kbps) through a twisted-pair local loop. The controller 310 comprises sensors 325 and alerting devices 327 to perform home security functions and device control means 330 to control the operation of devices coupled with the controller 310 in the customer premises 305. Device control means 330 are well known in the art and can comprise any convenient transport medium, such as but not limited to twisted pairs, in-home electrical wiring, power lines, or a free-field electromagnetic or optical connection. For example, to control a VCR, the device control means 330 can comprise an infra-red emitter to communicate with an infra-red receiver used for the VCR remote control. The transport protocol can be RS-232, RS-485, X-10, LonWorks, CEBus, or any other transport protocol that meets the cost, bandwidth, and reliability requirements for a particular installation.

Remotely located from the customer premises 305 is a second data-over-voice modem 335, which is coupled to a central office 340 with a POTS line 343 and a gateway 345 (preferably with a T1 line). The second data-over-voice modem 335 separates the data and voice traffic and sends the signals to the gateway 345 and a line card in the central office 340, respectively. The central office 340 is coupled to the public switched telephone network ("PSTN") 395. The gateway 345 is coupled with a home automation and security server 350, which comprises a home automation and security application 355, through a data network 360. The data network 360 (which can be SONET with ATM or any other comparable network technology) can comprise any number of computer data network devices or can be a single connection directly coupling the gateway 345 with the server 350. The data network 360 also can couple a speech processing server 390 and an Internet service provider 385 coupled with the Internet 375.

Unlike conventional systems, the controller 310 at the customer premises 305 is responsible for monitoring and applying control signals to devices in the home and for supporting a human interface, while the computational and database resources of the system 300 are provided to the controller 310 (and controllers of other customer premises) by the application 355. It is important to note that controller 310 - server 350 communication does not involve the POTS line or the public switched telephone network 395. As described below, even communication with a user in the customer premises 305, whether via dialed digits or a spoken commands, is sent as packets over the data channel.

The system 300 of Figure 3 can be used in a home automation method, as illustrated in the flow chart of Figure 4. As shown in Figure 4, this method comprises the steps of sending a command to the home automation controller 310 from the home automation application 355 to control an operation of a load coupled with the home automation controller 310 (step 410) and then using the home automation controller 310 to control the operation of the load in response to the command from the application 355 (step 420). For example, the application 355 can be programmed to turn on lights in the customer premises 305 at a specific time using the device control means 330. At the appropriate time, the application 355 contacts the controller 310

via the access channel 333 and commands the controller 310 to use the device control means 330 to turn on the lights.

Additionally, the system 300 of Figure 3 can be used in a home security method, as illustrated in the flow chart of Figure 5. This method comprises the steps of sending a signal from the home security controller 310 to the home security application 355 to indicate that a sensor 325 has been triggered (step 510) and using the home security application 355 to activate an alarm in response to the signal (step 520). For example, if the sensor 325 detects that a window has been opened in the customer premises, the controller 310 would generate a message describing the event and send the message to the application 355. The application 355 can automatically activate an alarm, or it can first determine whether the alarm should be activated. For example, the application 355 can be programmed to activate an alarm only if it has been informed that the customer premises 305 has no legitimate occupants. The alarm activation can be a triggering of an alerting device 327 in the customer premises 305 (*e.g.*, sounding an alarm, turning on lights, etc.). As part of the alarm activation, the application 355 also can send a message to a monitoring bureau via the central office 340 and the PSTN 395. The methods of both Figures 4 and 5 can be implemented with a computer usable medium having computer readable program code means embodied therein.

As mentioned above, the system 300 of Figure 3 provides more intensive computational and database resources and a more sophisticated user interface as compared to conventional systems. Additionally, the continuous connectivity access line 333 allows this system 300 to provide services that are not available with conventional systems. Each of these feature will be described in more detail below.

Computational and Database Resources

With conventional systems, in-house devices have limited computational capabilities due to size and cost constraints. In contrast to in-house devices, the server 350 and application 355 of this preferred embodiment offer greater computational and database resources. Additionally, because the application 355 is centralized and is not part of the controller 310, a user is not limited to applications built into the controller 310 and can use applications from third-party vendors that may be better tailored to his needs. Unlike current systems, changing applications does not require change to

customer premises equipment. Because the application 355 is centralized, these benefits can be shared by many users.

Because the computational resources of the centralized application server 350 are much larger than those of conventional in-house devices, the home security and automation application 355 can be written to take more intelligent action. For example, suppose that the application 355 is in an armed state and a window is opened at the time of day that children normally return home from school. Rather than immediately raising an alarm, the application 355 can use a speaker in the customer premises 305 to prompt the possible intruder/possible child-without-key to enter a security pass code. The application 355 also can have access to a much more complete database of information about home usage. For example, the application 355 can know that a cleaning service enters the home every Thursday at 1 p.m. If someone unlocks a door and enters at that time but does not enter a pass code, the application 355 would not necessary raise an alarm. The application 355, for example, can call the house and, using an interactive voice response system, prompt the service company personnel to enter his pass code over the telephone 315.

As another example, if other residences were equipped with the home automation and security system 300 of Figure 3, children can be asked to enter a unique identifier into the security system at their friend's house if they went there rather than to their own house after school. Alternatively, if the child were wearing a transponder, their presence would automatically be announced to the automation system of any building they entered. The automation and security system at their friend's house can then send a message to the child's home application 355 (via the data network 360 or the PSTN 395), which then can record the child's location and report on it if requested to do so. Knowing the child is in another location, the application 355 can immediately activate an alerting device 327 once a sensor is activated 325 instead of assuming that the cause for the activation is the child returning home from school.

In another application, the application 355 can send messages to the controller 310 to turn on certain devices and activate certain alerting devices 327 in response to receiving an alert (*e.g.*, civil defense warnings and severe weather alerts) from an information source coupled to the data network 360 or the PSTN 395. For example, if

the controller 310 receives a "take cover" warning from a weather source because a tornado has been spotted in the vicinity, the controller 310 can turn on all the lights in the house, sound a siren, and broadcast an appropriate spoken message over the home public address system. Additionally, the application 355 can monitor a news channel and announce events in the news that are thought to be of pressing interest to the occupants. For example, a home owner can be told of train or traffic delays, and a family can be told of weather-related school closings.

As described above, the data network 360 can be coupled with larger databases than are available to the conventional home automation and security systems. With access to a larger database, a user has more control over, for example, VCR programming. The application 355 can monitor and track changes in the scheduled time of a program to automatically adjust the VCR programming to ensure that a desired program is recorded. Additionally, the application 355 can provide the user with a better interface through which to program the VCR. With conventional systems, program schedules are sent to a cable box or a specially-equipped television set for display to the user. The user navigates through a typically grid-like display on the television set and selects programs for recording. Because of memory limitations in set-top boxes or the circuitry of specially-equipped television sets, users typically have access to only a few days of program listings, and the listings include only terse descriptions of the programs. In contrast, the application 355 of this preferred embodiment can have access (via the data network 360) to information about many weeks of programming and detailed information about each program.

User Interface

Because the user interface is supported by a centralized server 350, the cost and size of the controller 310 does not limit the user interface, as in conventional systems. Accordingly, the computational resources available to the application 355 of this preferred embodiment can provide a more sophisticated user interface as compared to conventional systems. The system 300 of this preferred embodiment can communicate with a user via an interactive voice session, and because the server 350 can be a larger and more versatile machine than a conventional in-house unit, the dialog can be vastly easier for the user. When the application 355 is aware that it must communicate with the user over a standard telephone, it initiates an interactive voice

session. An initial greeting is sent, and the user can respond by either dialing a touch-tone digit or by speaking. Processing of voice commands can be done by a speech processing server 390 coupled with the data network 360. Using readily-available current technology, the speech processing server 390 can perform speaker-independent recognition or speaker verification.

In the course of the user's interaction with the home automation and security system 300, the user may inquire about the status of devices in the home, issue commands to change device status, or may change the way in which the application 355 responds to reported events. The user's dialog with the application 355 can result in messages being sent to the controller 310. For example, the user can call from a bedside phone to instruct the application 355 to enter a "night mode." The application 355 then can send a message to the controller 310 instructing it to turn off all lights under its control. A user instruction to enter night mode also can configure the application 355 to immediately respond to reports from in-home sensors 325 that a door or window was opened or that a motion detector was tripped. The nature of a response to an unexpected sensor event can be whatever the user deems appropriate. The application 355 can place a telephone call to the house, turn on house lighting, sound an alarm in the house, or place a call to a monitoring bureau. As described above, the service logic that determines what should be done when an event is detected in the home is in the application server 350. The controller 310 is responsible only for reporting events and sending control signals to devices when instructed to do so.

A user can access the server 350 from within his home using the telephone 315 (*e.g.*, a standard telephone station set 100 shown in Figure 1). The user-interface controller 317 coupled with the telephone 315 can monitor the signals from the telephone 315 to determine whether the user is attempting to access the server 350 or is attempting to place a telephone call. When the telephone 315 goes off-hook, the user-interface controller 317 supplies dial tone without passing the on-hook signal to the central office 340. In response to the user dialing anything other than a specified series of keys (such as "**"), the user-interface controller 317 establishes a connection and passes the dialed digits to the central office 340. If the user dials the specified series of keys (such as "**"), the telephone 315 connects to the home automation and security server 350 without an off-hook signal being sent to the central office 340. A

message requesting initiation of a home automation and security system dialog is sent from the first 320 to the second 335 data-over-voice modem via the data channel of the access line 333 and finally to the gateway 345. The gateway 345 then sends an appropriate message to the server 350, which establishes a connection between the home automation and security controller 310 and the home automation and security application 355 running in the server 350.

In another embodiment, a user can access the application 355 with his home computer 313. As shown in Figure 3, the computer 313 can be connected to the first data-over-voice modem 320 with a multiplexer 314 that also is coupled with the controller 310. The application 355 can provide the computer 313 with a highly graphical interface in the form of a "Web page." As described above, the application 355 communicates with the computer 313 using a data channel separate from the voice channel. Consequently, it is possible for someone on the premises to use the telephone 315 at the same that the application 355 is exchanging messages with the computer 313.

In yet another embodiment, a dedicated user interface device 600 (Figure 6) can be coupled with the controller 310 to access the application 355. The dedicated user interface device 600 comprises a display 610, preferably an LCD with eight lines, each with forty text characters per line. The display 610 also preferably comprises built-in graphical cells (*i.e.*, icons). User input devices can include a keypad 615 (arranged, for example, as a touch-tone pad) and function keys 620, some of which can be located at each side of the display 610 and labeled by displaying appropriate icons or text strings. The dedicated user interface device 600 also can include a speaker 630 and a microphone 640 to support speech prompts and spoken user commands.

While the dedicated user interface device 600 and the controller 310 comprise some processing capability, the application 355 in the server 350 is in complete control of the user interface device 600. The application 355 determines what the user will see on the display 610 and hear over the speaker 630. The application 355 interprets all user inputs, button presses, touch-screen contacts and spoken commands. The application 355 can send a complete bit map of the screen or can send a character image showing which of a set of characters (*e.g.*, ASCII characters, extended ASCII drawing characters, and pre-determined icons) should be displayed at a particular

location on the display 610. The application 355 also can send a more abstract markup language representation. As is well known in the art, tradeoffs can be made either to conserve bandwidth by sending a higher-level representation or to minimize the need for processing capacity in the dedicated user interface device 600 by sending more literal descriptions of the screen.

The application 355 also can be accessed from a location remote from the customer premises 305. When the user is off premises, he can use an ordinary touch-tone telephone to call the application 355. A user can place a telephone call to an access number, which can be routed from the central office 340 directly to the server 350 through a T1 line, for example, or indirectly through the gateway 345. The application 355 can communicate with the user via tone or speech prompts, and user responses can be either dialed touch-tone digits or spoken words. When a telephone is used to remotely access the application 355, a talking path can be established between the remote user and either a specialized voice I/O device in the customer premises 305 (*e.g.*, a loudspeaker and microphone) or the regular home telephone 315. Speech to and from the home can be routed through the data channel of the access line 333 without using a normal telephone connection into the home. In this way, the remote user can talk to someone in the home, and the other home telephones still can be used for normal telephone calls. Additionally, a remote user can use the data channel to monitor activity in the house by receiving signals sent from the microphone of the specialized voice I/O device.

The user also can use a personal computer to remotely access the application. The computer can be coupled to the server 350 over the Internet 375 (or a private data network) or over a dial-up connection through the PSTN 395. In one embodiment, the server 350 functions as a Web server. After entering the server's 350 public home page, the user (after passing through a security check) can go to the page for their home automation and security system. This page can be designed to provide the appropriate status information and controls. In the course of the user's interaction with the application 355, the user can inquire about the status of devices in the home, issue commands to change device status, or change the way in which the application 355 manages home devices or responds to reported events. The application 355 is ultimately responsible for controlling all automated systems in the home. Alternatively,

the application 355 can send commands to devices in the home to pre-program them to respond to local events.

In all of the above embodiments, because the application 355 communicates with the controller 310 using a data channel separate from the voice channel, someone on the premises 305 can use the telephone 315 at the same time that the application 355 is exchanging messages with the controller 310. The continuous connectivity access line 333 provides the system with additional advantages, as described below.

The Continuous Connectivity Access Line

The use of a continuous connectivity access line 333 also allows several services to be offered that are unavailable with current systems. For example, the system 300 of Figure 3 can be used to send messages to utility companies describing current meter readings. Additionally, if the home security system is in "away mode," the home can be assumed to be unoccupied, and the thermostat controlling air conditioning can be set to a relatively high level without inconveniencing the home owner. Further, the application 355 can provide estimates to the utility company of how many air conditioning units can be set back and, hence, how much power can be saved.

As another feature, the system 300 can maintain a log of customer premises' entries and exits. A remote user can be provided with either real-time notification of changes in the security system status (*e.g.*, the kids are home) or can peruse historical records. Further, cut-line protection can be provided at practically no additional cost because the application 355 will immediately be alerted if the access line becomes inoperable for any reason. The application 355 also can receive immediate notification of loss of residential power and can monitor the status of the backup system.

While the embodiments have been described in reference to a continuous connectivity access line supported by data-over-voice modems, as mentioned above, the access line can also be supported by a digital subscriber line. Figure 7 is a block diagram of some of the components of a home automation and security system 700 of a preferred embodiment using an asymmetrical digital subscribed line (ADSL). As shown in Figure 7, the customer premises 705 comprises a premises gateway 720 coupled with a remotely located digital subscriber line access multiplexer ("DSLAM") 735 via a twisted pair. The premises gateway 720 combines voice traffic from

telephones 715 and data traffic from the home automation and security controller 710. The premises gateway 720 also can combine data traffic from personal computers 713 coupled with an Ethernet, for example. The DSLAM 735 separates the traffic and sends the voice traffic to the central office 740 and the data traffic to the gateway 745. The additional elements shown in Figure 3 can be added to enable this system 700 to perform all the functions described in reference to the system 300 of Figure 3.

It is important to note that while the preferred embodiments were described above in terms of a home automation and security system, these two functions can exist independently. For example, while the home automation and security controller 310 is shown as one element, a system can comprise two controllers – one for home automation and one for home security. Alternatively, a customer premises may only have one controller, functioning as either a home automation controller or a home security controller.

It is intended that the foregoing detailed description be understood as an illustration of selected forms that the invention can take and not as a definition of the invention. It is only the following claims, including all equivalents, that are intended to define the scope of this invention.

What is claimed is:

1. A home automation system comprising:

a home automation controller located in a customer premises;

a home automation server, located remotely from the customer premises, comprising a home automation application operative to control operation of a load coupled with the home automation controller; and

an access line coupling the home automation controller with the home automation server.

2. A home security system comprising:

a home security controller, located in a customer premises, comprising at least one security sensor;

a home security server, located remotely from the customer premises, comprising a home security application operative to monitor said at least one security sensor; and

an access line coupling the home security controller with the home security server.

3. The invention of claim 1 or 2, further comprising:

a first data-over-voice modem coupled with the controller; and

a second data-over voice modem coupled with the server;

wherein the access line couples the first data-over-voice modem with the second data-over-voice modem.

4. The invention of claim 1 or 2, further comprising:

a premises gateway coupled with controller; and

a digital subscriber line access multiplexer coupled with the server;

wherein the access line couples the premises gateway with the digital subscriber line access multiplexer.

5. The invention of claim 4, wherein the access line comprises a digital subscriber line.

6. The invention of claim 4, wherein the access line comprises an asymmetrical digital subscriber line.

7. The invention of claim 1 or 2, further comprising a data network coupling the controller with the server.

8. The invention of claim 7, further comprising a speech processing computational server coupled with the data network.

9. The invention of claim 7, further comprising an Internet service provider coupled with the data network.

10. The invention of claim 1 or 2, wherein the server is configured to be coupled with a central office.

11. The invention of claim 1 or 2, further comprising:

a telephone; and

a user-interface controller coupled with the telephone and the access line.

12. The invention of claim 1 or 2, further comprising:

a personal computer; and

a multiplexer coupled with the personal computer, the controller, and the access line.

13. The invention of claim 1, wherein the controller comprises device control means.

14. The invention of claim 2, wherein the controller further comprises at least one alerting device.

15. A home automation system comprising:

a home automation controller located in a customer premises;

a first data-over-voice modem coupled with the controller;

a second data-over voice modem;

an access line coupling the first data-over-voice modem with the second data-over voice modem; and

a home automation server, located remotely from the customer premises and coupled with the second data-over voice modem, comprising a home automation application operative to control operation of a load coupled with the home automation controller.

16. A home security system comprising:

a home security controller, located in a customer premises, comprising at least one security sensor;

a first data-over-voice modem coupled with the controller;

a second data-over voice modem;

an access line coupling the first data-over-voice modem with the second data-over voice modem; and

a home security server, located remotely from the customer premises and coupled with the second data-over voice modem, comprising a home security application operative to monitor said at least one security sensor.

17. A home automation system comprising:

a home automation controller located in a customer premises;

a premises gateway coupled with controller;

a digital subscriber line access multiplexer;

an access line coupling the premises gateway with the digital subscriber line access multiplexer;

a home automation server, located remotely from the customer premises and coupled with the digital subscriber line access multiplexer, comprising a home automation application operative to control operation of a load coupled with the home automation controller.

18. A home security system comprising:

a home security controller, located in a customer premises, comprising at least one security sensor;

a premises gateway coupled with controller;

a digital subscriber line access multiplexer;

an access line coupling the premises gateway with the digital subscriber line access multiplexer;

a home security server, located remotely from the customer premises and coupled with the digital subscriber line access multiplexer, comprising a home security application operative to monitor said at least one security sensor.

19. A home automation system comprising:

first means, located in a customer premises, for controlling an operation of a load coupled with said first means; and

second means, coupled with and located remotely from said first means, for sending a command to said first means to control said operation of said load.

20. A home security system comprising:

first means, located remotely from a customer premises, for activating an alarm in response to a signal indicating a triggered sensor in said customer premises; and

second means, coupled with said first means and located in said customer premises, for sending said signal to said first means in response to a triggered sensor.

21. A home automation controller comprising:

device control means; and

first means, coupled with the device control means, for receiving a command from a remotely located home automation application to control an operation of a load coupled with said controller; and

second means, coupled with the device control means, for using the device control means to control said operation of said load.

22. A home security controller comprising:

at least one security sensor; and

means, coupled with said at least one security sensor, for sending a signal to a remotely located home security application indicating a triggered sensor in a customer premises.

23. A home automation controller input device comprising:

a display;

an input device coupled with the display; and

means, coupled with the input device, for communicating with a remotely located home automation application via an access channel.

24. A home security controller input device comprising:

a display;

an input device coupled with the display; and

means, coupled with the input device, for communicating with a remotely located home security application via an access channel.

25. A home automation method comprising the steps of:

(a) sending a command, to a home automation controller in a customer premises from a home automation application located remotely from the customer premises, to control an operation of a load coupled with the home automation controller; and

(b) using the home automation controller to control said operation of said load in response to said command.

26. The method of claim 25, further comprising the step of using the home automation application to generate said command in response to receiving an alert from an information source.

27. The method of claim 25, wherein said load comprises a VCR.

28. A home security method comprising the steps of:

(a) sending a signal from a home security controller in a customer premises to a home security application located remotely from the customer premises, said signal indicating a triggered sensor in the customer premises; and

(b) using the home security application to activate an alarm in response to said signal.

29. The method of claim 28, wherein step (b) is automatically performed in response to said signal.

30. The method of claim 28, further comprising the step of: (c) using the home security application to determine whether to activate said alarm in response to said signal, and wherein step (b) is performed only in response to a determination by the home security application that said alarm should be activated.

31. The method of claim 28, wherein step (b) comprises the step of using the home security application to activate an alarming device in the customer premises in response to said signal.

32. The method of claim 28, wherein step (b) comprises the step of contacting a monitoring bureau in response to said signal.

33. A computer usable medium having computer readable program code means embodied therein for home automation, the computer readable program code means comprising:

first computer readable program code means for sending a command, to a home automation controller in a customer premises from a home automation application located remotely from the customer premises, to control an operation of a load coupled with the home automation controller; and

second computer readable program code means for using the home automation controller to control said operation of said load in response to said command.

34. A computer usable medium having computer readable program code means embodied therein for home security, the computer readable program code means comprising:

first computer readable program code means for sending a signal from a home security controller in a customer premises to a home security application located remotely from the customer premises, said signal indicating a triggered sensor in the customer premises; and

second computer readable program code means for using the home security application to activate an alarm in response to said signal.

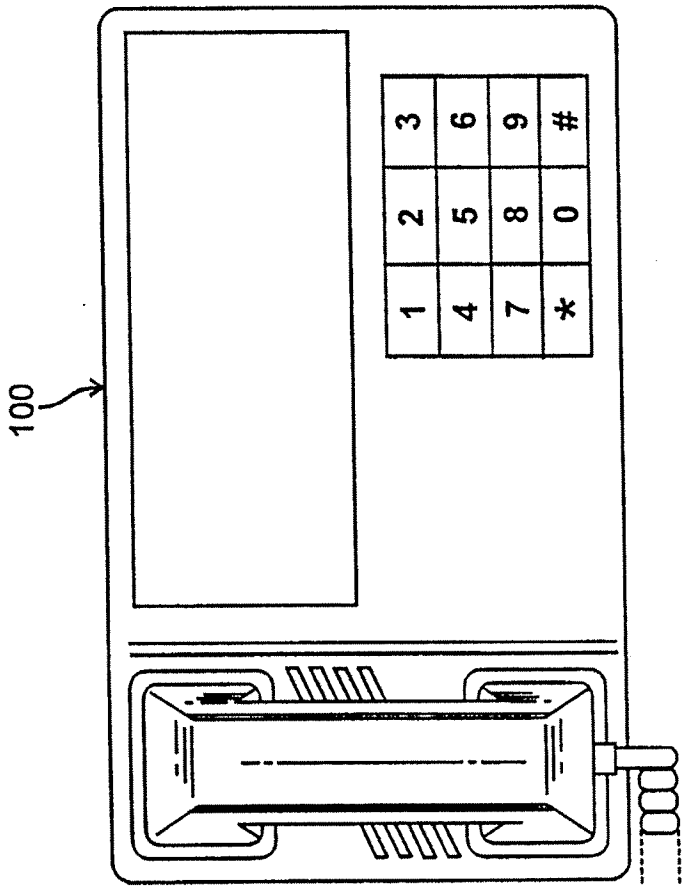

Fig. 1

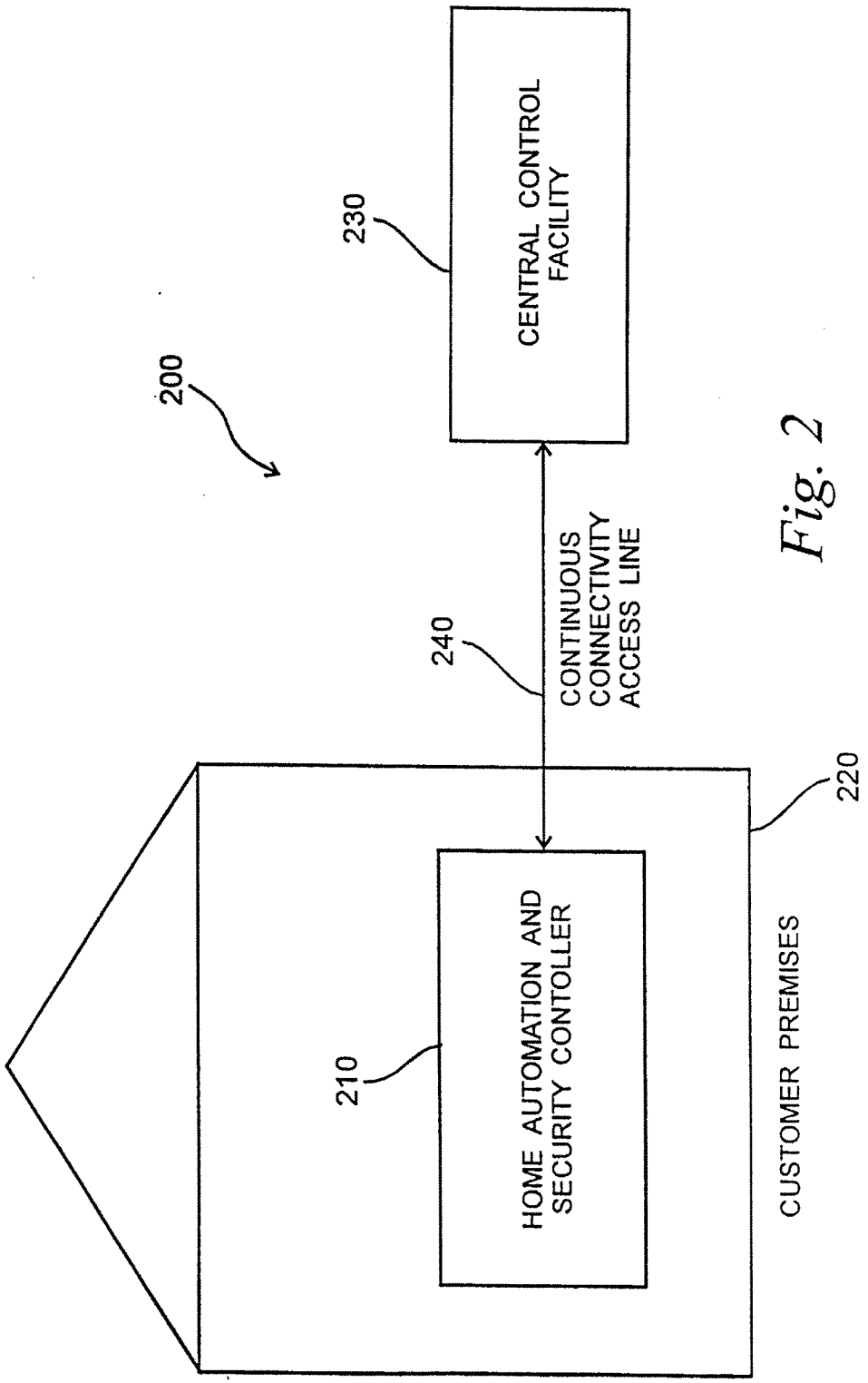
200
230
CENTRAL CONTROL FACILITY
240
CONTINUOUS CONNECTIVITY ACCESS LINE
220
210
HOME AUTOMATION AND SECURITY CONTOLLER
CUSTOMER PREMISES

Fig. 2

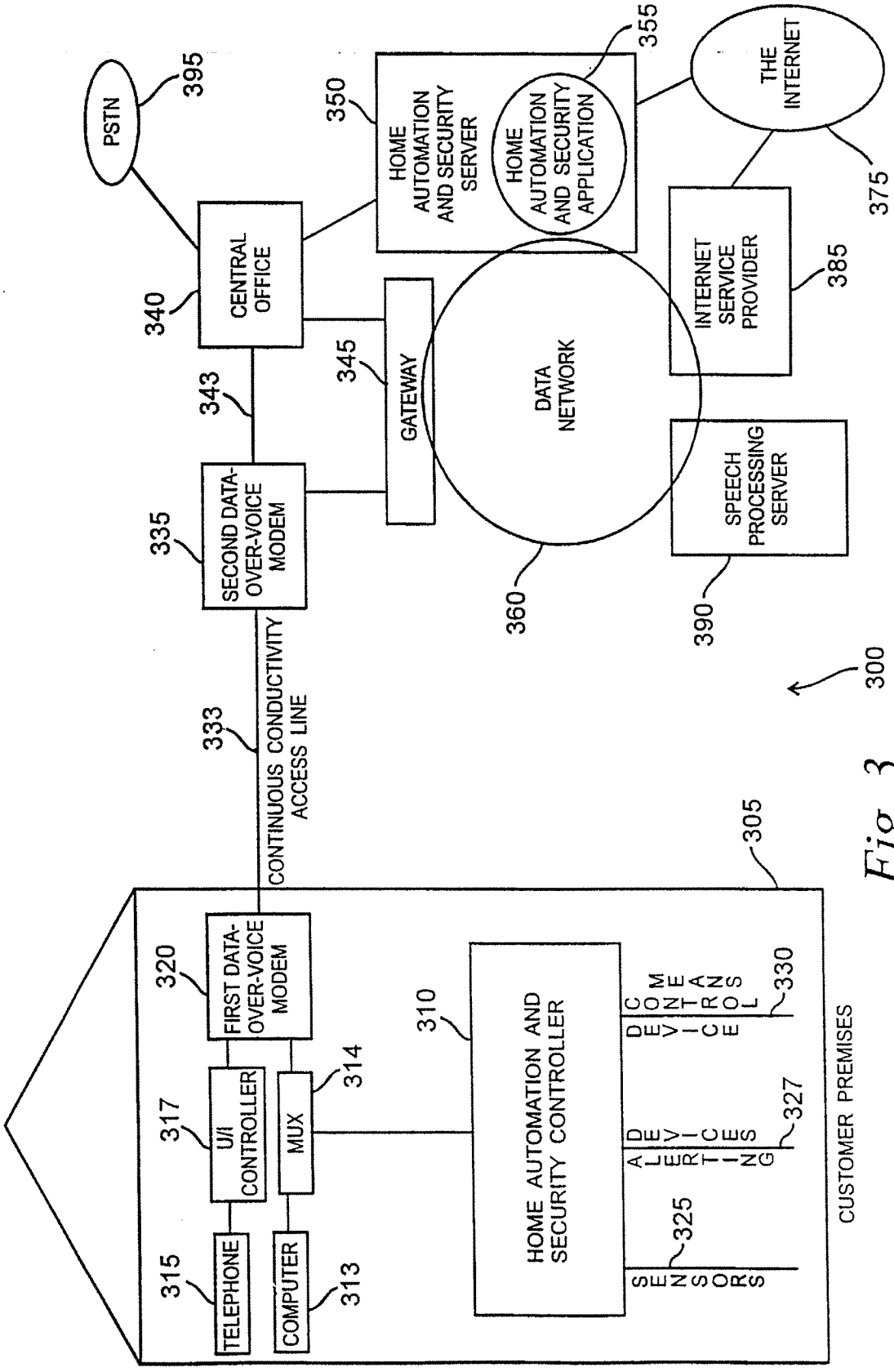
PSTN
395
350
HOME AUTOMATION AND SECURITY SERVER
HOME AUTOMATION AND SECURITY APPLICATION
355
THE INTERNET
375
CENTRAL OFFICE
340
GATEWAY
345
DATA NETWORK
INTERNET SERVICE PROVIDER
385
343
SECOND DATA-OVER-VOICE MODEM
335
SPEECH PROCESSING SERVER
360
390
300
333
CONTINUOUS CONDUCTIVITY ACCESS LINE
305
FIRST DATA-OVER-VOICE MODEM
320
310
HOME AUTOMATION AND SECURITY CONTROLLER
DEVICE CONTROL
330
UI CONTROLLER
317
MUX
314
ALERTING DEVICES
327
TELEPHONE
315
COMPUTER
313
SENSORS
325
CUSTOMER PREMISES

Fig. 3

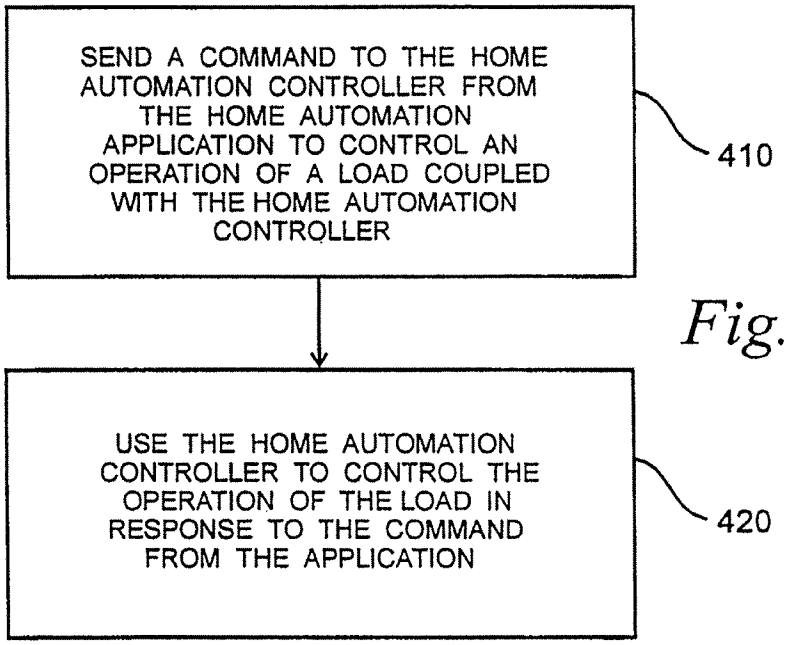
SEND A COMMAND TO THE HOME AUTOMATION CONTROLLER FROM THE HOME AUTOMATION APPLICATION TO CONTROL AN OPERATION OF A LOAD COUPLED WITH THE HOME AUTOMATION CONTROLLER
410
USE THE HOME AUTOMATION CONTROLLER TO CONTROL THE OPERATION OF THE LOAD IN RESPONSE TO THE COMMAND FROM THE APPLICATION
420

Fig. 4

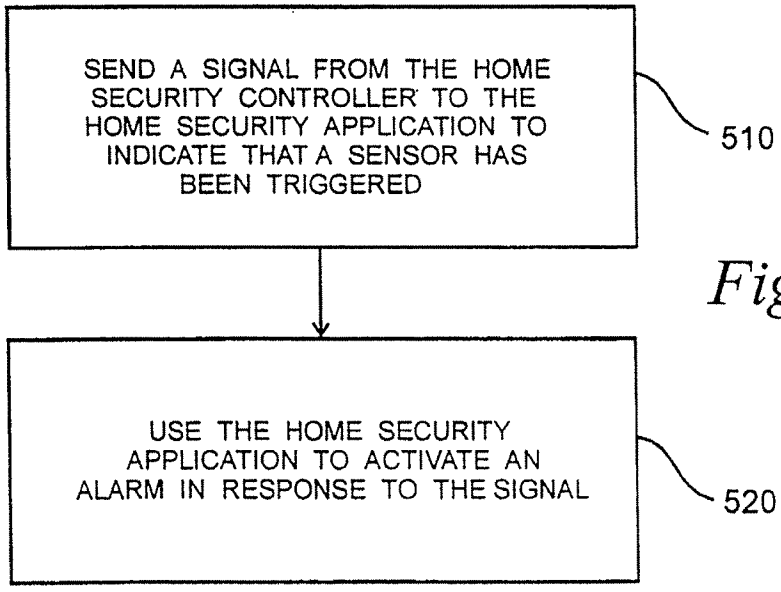
SEND A SIGNAL FROM THE HOME SECURITY CONTROLLER TO THE HOME SECURITY APPLICATION TO INDICATE THAT A SENSOR HAS BEEN TRIGGERED
510
USE THE HOME SECURITY APPLICATION TO ACTIVATE AN ALARM IN RESPONSE TO THE SIGNAL
520

Fig. 5

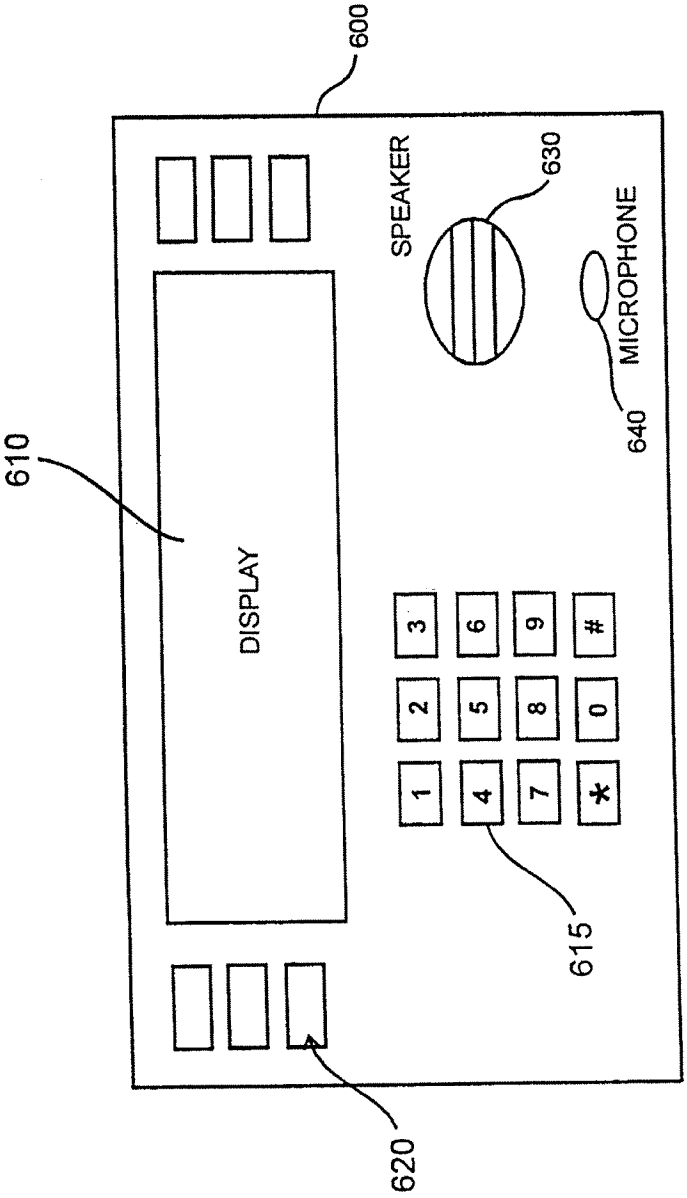
600
SPEAKER
630
MICROPHONE
640
610
DISPLAY
3
6
9
#
2
5
8
0
1
4
7
*
615
620

Fig. 6

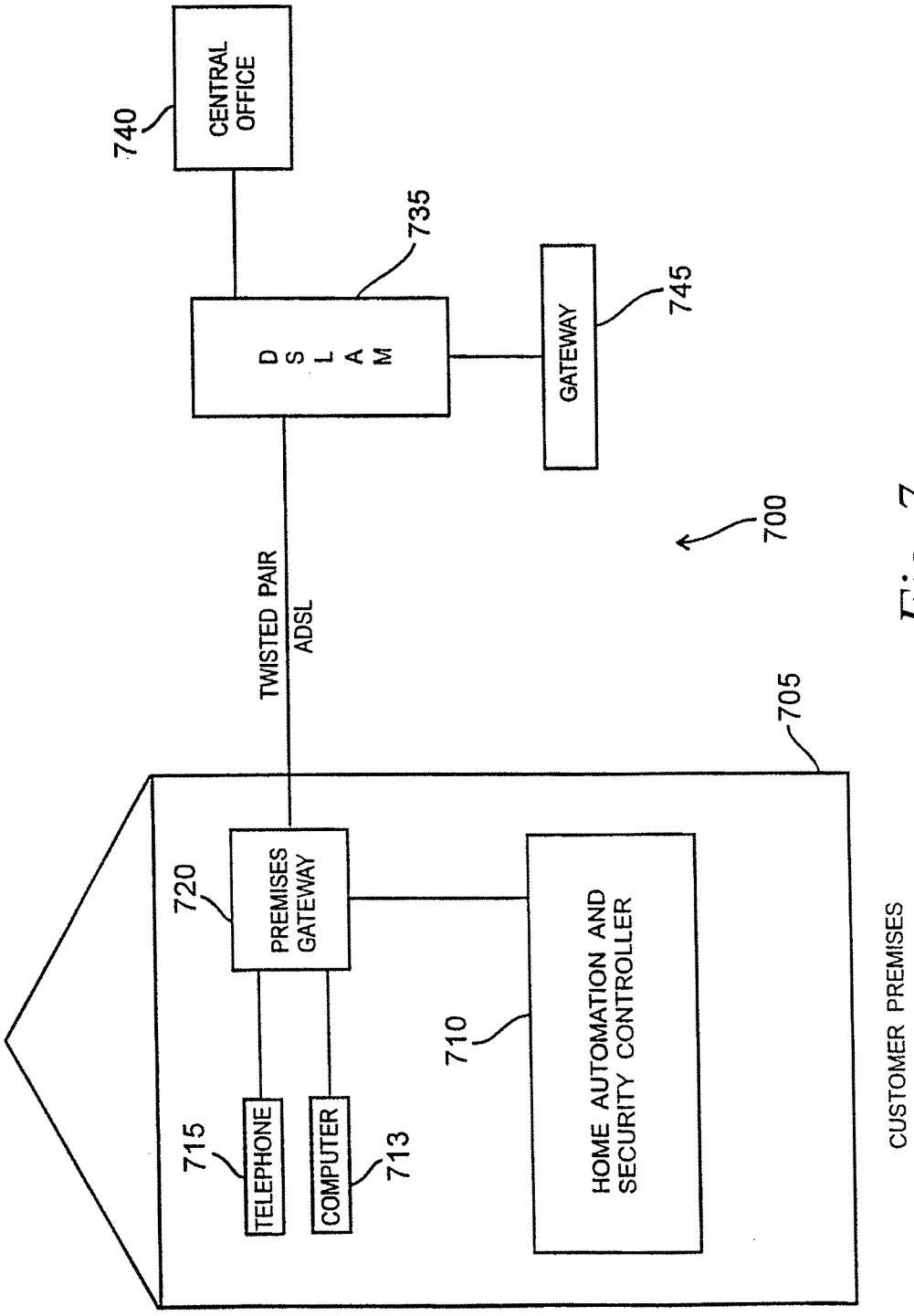
CENTRAL OFFICE
740
735
DSLAM
GATEWAY
745
700
TWISTED PAIR
ADSL
705
720
PREMISES GATEWAY
710
HOME AUTOMATION AND SECURITY CONTROLLER
715
TELEPHONE
COMPUTER
713
CUSTOMER PREMISES

Fig. 7

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International Bureau

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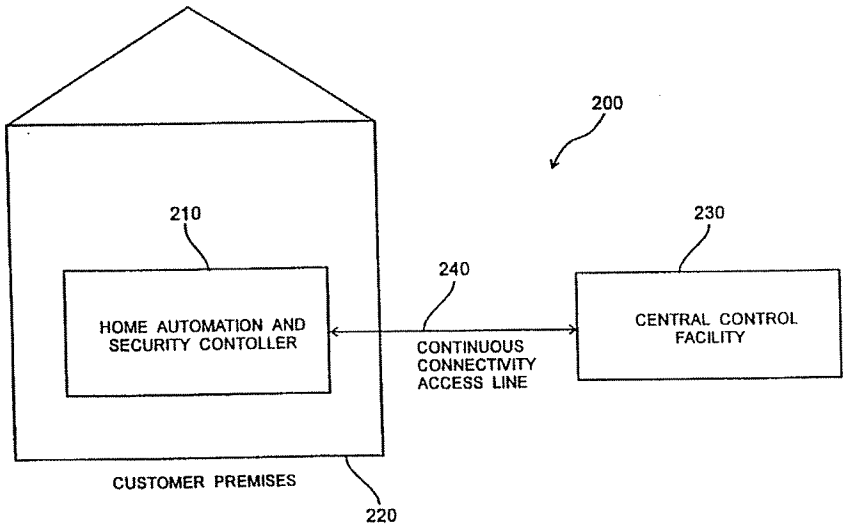

(57) Abstract

A home automation and security system (200) is provided in which a home automation and security controller (210) in a customer premises (220) is coupled with a remotely located central control facility (230) using a continuous connectivity access line (240) providing a data channel separate from a voice channel. The controller (210) at the customer premises (220) is responsible for monitoring and applying control signals to devices (327) in the home and for supporting a human interface (313). The remotely located central control facility (230) is responsible for providing the computational and database resources to the controller (310). By redistributing functionality, the network-based structure of this home automation and security system (200) can overcome the disadvantages of conventional home automation and security systems.

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US CL :340/506

According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)

U.S. : 340/506,511,517,539,825.31,825.32

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,400,246 A (WILSON et al) 21 March 1995, abstract, lines 1-10.	1-34

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