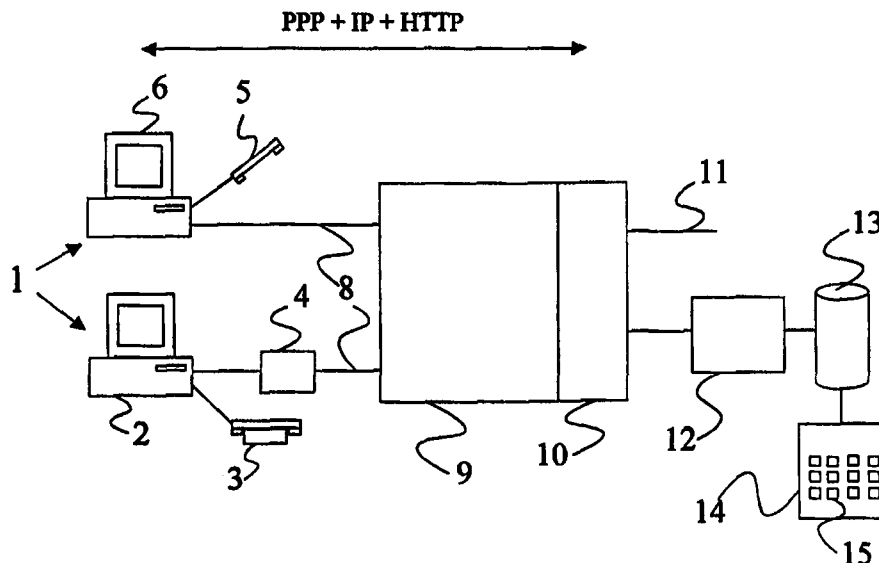




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<p>(21) International Application Number: PCT/FI98/00440 (22) International Filing Date: 26 May 1998 (26.05.98) (30) Priority Data: 972319 30 May 1997 (30.05.97) FI (71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON [SE/SE]; S-126 25 Stockholm (SE). (72) Inventor; and (75) Inventor/Applicant (for US only): ARKKO, Jari [FI/FI]; Karppalantie 25 A 7, FIN-02700 Kauniainen (FI). (74) Agent: BORENIUS &amp; CO. OY AB; Kansakoulukuja 3, FIN-00100 Helsinki (FI).</p>	<p>(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, GW, 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, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</p>	

(54) Title: A METHOD AND ARRANGEMENT IN COMMUNICATION NETWORKS FOR MANAGING USER RELATED FEATURES THROUGH A USER INTERFACE



## (57) Abstract

A method and arrangement for managing a communications network such that a user in a communications network environment is enabled to manage user related features provided in said network through a user interface (1). The managing method comprises steps for (I) establishing a call to a server (12) provided with a feature management service including an individual register (13) of characteristics and available features for predetermined user interfaces (1), (II) terminating the user's access into the network through the user interface (1) to said server (12), (III) identifying the user interface (1) by means of at least one characteristic of said user interface, (IV) inputting said characteristic into said server means (12), and (V) enabling the user to manage the features associated with said at least one inputted characteristic through said user interface (1).

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A METHOD AND ARRANGEMENT IN COMMUNICATION NETWORKS FOR MANAGING  
USER RELATED FEATURES THROUGH A USER INTERFACE

FIELD OF THE INVENTION

5 The present invention relates to a method for managing  
the configuration and/or operation of various features  
of telecommunication networks. The invention relates  
further to an arrangement for accomplishing the managing  
operations of the telecommunication network features.

10

BACKGROUND OF THE INVENTION

Modern telecommunication networks provide various  
sophisticated features and/or services available to  
15 subscribers. These services are in most cases provided  
and run by the telephone companies (operators) and  
include features such as call forwarding, wake-up calls,  
answering services, directory services, text and voice  
mails etc. These services may be implemented, e.g. in a  
20 so-called Intelligent Network (IN).

Conventionally these services have been relatively  
difficult to use. In particular, the configuration  
thereof, e.g. the installation/removal and  
25 activation/deactivation and/or other changes thereof,  
requires in most cases the assistance of the telephone  
company. Some of the configurations are also such that  
they can be accomplished only by the telephone company,  
e.g. by a service person or an authorised clerk of the  
30 telephone company. To receive this kind of assistance,  
the subscriber has either to visit an office of the  
telephone company or at least to make a telephone call  
to them to order the desired configuration of services.

35 One of the reasons for this is the substantially  
unsophisticated and limited user interface of

conventional telephone terminals (a simple keypad with numbers 0...9 and hash (#) and star (\*)). The required key combinations are often long and hard to remember, and the lack of guidance to the user causes mistakes, or even dissuades the user from even trying. In addition, the conventional telephone systems and terminals do not give much feedback, if at all, after the subscriber has keyed in the instructions through the keypad. The nature of the user interface also limits the number and flexibility of the services that can be effectively and readily used.

To overcome the above problems, improved network arrangements and/or telephone terminals have been suggested. For instance, the performance of conventional POTS connections (Plain Old Telephone Service) is improved, e.g. by the so-called ISDN connection (Integrated Services Digital Network). Improved telephone terminals are also suggested, especially in connection with advanced connections such as the ISDN. These are intended to provide the user with an improved interface for setting, configuring, and modifying operations of the various features and/or services.

It is characteristic of ISDN that the user may utilise several communications services either separately or simultaneously. Different applications, which consist of a terminal device, a group of terminal devices, a multiservice switch, a local network, another private network etc., are connected to the ISDN by a limited user access group. The ISDN network enables the development of the conventional telephone to form a part of a multiservice terminal, such as a combination of a telephone and a PC, which enables simultaneous transfer of speech and data. The ISDN interface between the user and the network comprises various types of channels

which can be used between the subscriber and the network for information transfer.

The ISDN B-channel is a channel operating at a rate of 5 64 kbit/s and is provided with timing - it is used for transferring all kinds of information, e.g. in different manners coded speech or data. The ISDN D-channel, which has a transfer rate of either 16 kbit/s or 64 kbit/s, is primarily intended as a signalling channel for circuit 10 switched connections. By combining the different channel structures user accesses are provided. A basic access has a 2B+D structure and a basic system access has a 30B+D structure. By using the basic access system, one or several terminal devices may be connected 15 directly to the ISDN network, whereas the basic system access is used for connecting large switches and local networks to the ISDN network.

The additional features/services referred to above are 20 usually adapted to conventional telephone terminals. It is therefore difficult to introduce more advanced features/services, or their introduction is at least difficult and/or expensive to accomplish as it is necessary to provide subscribers with more advanced 25 terminals. This cost factor has been one of the reasons for the slow introduction of advanced features/services in telecommunications networks, especially amongst home users.

30 There are arrangements utilising open communications networks, such as the Internet or MAN (Metropolitan Area Network) or similar, which provide for the transmission of telephone communications. The skilled person is familiar with these, and understands that the Internet 35 is a global open communications network connecting through PSTNs (Public Switched Telephone Network) and suitable gateways to a great number of local area

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