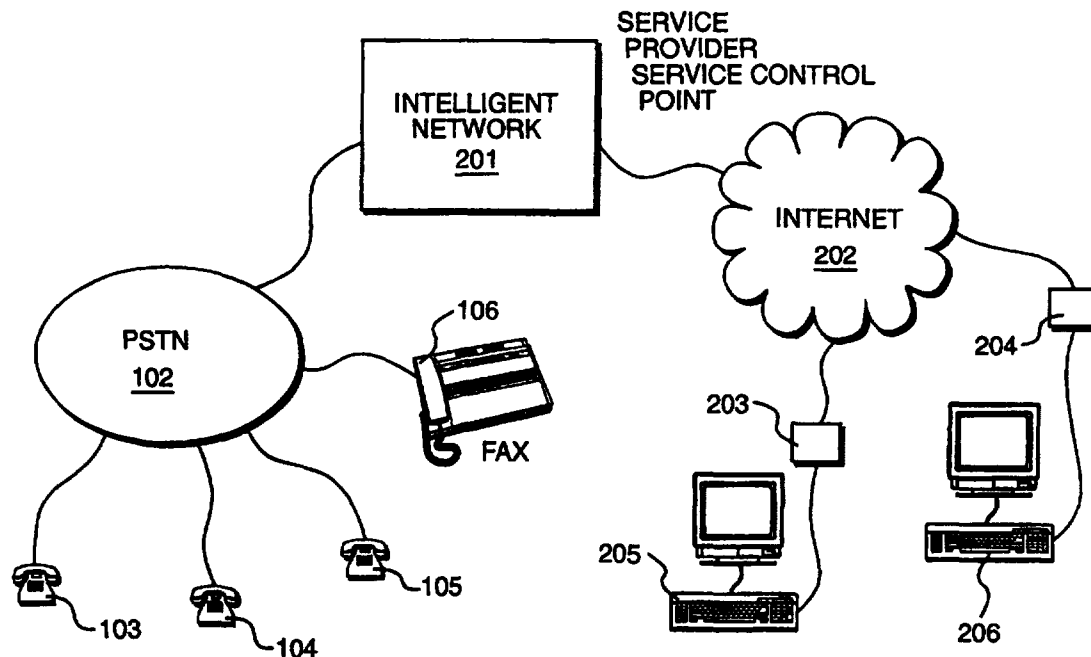


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(54) Title: ACCESSING TELECOMMUNICATIONS SERVICES



(57) Abstract

Communication to a configuring device (201) for configuring a telecommunications network (102) is provided via a second network (202), such as the Internet. Instructions for presenting a user interface at a user terminal (205) are generated by the second network such that when these instructions are executed by a user terminal, a user is invited to supply configuration data. The second network then relays this configuration data to the configuring device.

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## ACCESSING TELECOMMUNICATIONS SERVICES

### 5 Introduction

The present invention relates to providing user access to control apparatus for a telecommunications network such that users may configure aspects of said network.

The basic provision by telecommunications companies of networks  
10 for making phone-to-phone voice calls has been augmented in recent years by the provision of many additional services. Examples of these services include automated telephone answering and message storage, voice call diversion and fax call diversion. Typically these services reduce the need for customers to buy expensive equipment in their own home or office, such  
15 as telephone answering machines by providing highly sophisticated services to a large number of subscribers from a centralized computer site.

The widespread use of mobile phones has considerably increased the demand for augmented services and a new market has been identified, in response to competition from mobile phones, involving the automatic  
20 transfer of calls. In accordance with this service, calls may be made to a person in preference to a location. Such a service involves allocating telephone numbers to people instead of to telephone lines and this service is sometimes referred to as personal number dialling. Thus, with appropriate programming, it is possible for telephone calls to be directed to  
25 customers as they move from one location to another without requiring that customer to carry mobile telephoning equipment.

Theoretically, the variety of services that may be provided over public switched networks is considerable. However, the ability to provide and operate these services is restricted by the simplicity of the standard  
30 telephone, with its limited user interface. Thus, when it is desired to provide a particular customer with an extremely comprehensive array of services,

the simple numerical keypad on a telephone makes access to these services tedious, complex and error-prone.

A solution to this problem is to provide a more comprehensive user interface using a personal computer equipped with appropriate communications hardware and software, in order to improve access to enhanced telecommunications services.

Systems are known in which customers may have telephones and fax machines connected to a public switched network. The network may include intelligent service notes allowing service providers with the ability to store in-coming voice and fax messages, forward telephone calls to different numbers at various times of the day and provide other sophisticated telecommunications services.

A customer may call a number and a database, operated by the service provider, may store records of the times of day during which the owner of the telephone is unavailable, for example at lunch times. Consequently, at particular times of the day, calls to the number are diverted by the service provider to an internal message recording facility. The service provider prompts the caller to leave a message which will then be stored, usually on magnetic media such as a hard disk array, in compressed form, for later play-back.

A problem with known systems of this type is that conventional telecommunications equipment does not facilitate the transmission of sophisticated data requests, therefore it is difficult for customers to relay information to intelligent service notes so as to configure them in the way required by the customer. Consequently, in many situations, the technical possibilities available within the network are not fully exploited.

### **Summary Of The Invention**

According to a first aspect of the present invention, there is provided apparatus for communicating with a configuring device for configuring a telecommunications network, comprising: a second network including input means and output means; and a user terminal connected to said

configuring device by a said second network; wherein said output means is arranged to generate instructions for presenting a user interface; and said input means is arranged to receive configuration data from said terminal and to supply configuration commands to said configuring device.

5           In a preferred embodiment, a telecommunications network is a switched telephone network arranged to receive voice signals and modulated data signals. A network may include means for forwarding incoming calls to selected destinations and may include means for storing incoming voice calls. Said modulated data calls may be facsimile  
10 transmissions and means may be provided for storing said facsimile transmissions.

          In a preferred embodiment, the second network is the Internet and output instructions and input instructions are supplied over said Internet in accordance with the hypertext transport protocol.

15           According to a second aspect of the present invention, there is provided a method of providing user access to configuring apparatus arranged to control aspects of a telecommunications network, such that users may configure aspects of said telecommunications network independently of a network provider, comprising steps of: providing a  
20 second communications channel between a user and said control apparatus via a second network, said second network having a user terminal and an interconnection means for connecting said second network to said control means, wherein a user interface is presented to a user at said user terminal in response to user interface commands supplied to said  
25 user terminal from said interconnection means via said second network, such that said interface commands invited user to modify said telecommunications network and in response to modification instructions generated at said user terminal, control instructions are sent to said control means via said second network and said interconnection means.

30           In a preferred embodiment, communications received by said telecommunications network are stored by said first network and so communications are relayed to said user by a said second network. In a

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