

Title: User identifying method and system in computer communication network
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ABSTRACT

A simple, convenient and reliable method provided for identifying a user through a computer network. This method comprises the steps of sending a string of characters randomly selected from a table recording a set of characters from a central computer to a terminal computer, converting one or more characters from the string according to a conversion rule, sending one or more characters from the terminal computer to the central computer and identifying the user of the terminal computer based on the string of characters sent from the central computer, the conversion rule and the one or more characters sent by the user.

TECHNICAL FIELD

The present invention relates to a user identifying method and system in a computer communication network.

RELATED ART

Development of computer communication networks is remarkable in these years. Opportunities of providing, getting, transmitting and managing information based on the world wide web (WWW) and home pages as well as applications of the networks to electronic transactions, etc. are ever-increasing and will be spread widely even into the general public.

A problem involved in connection with the use of a computer communications network is the identification of a user. User identification is highly important because it serves as a signature in the calculation of a user's charge or in an electronic transaction taking place over the computer communication network.

There has been widely used at present such a user identifying technique that in a host computer (central computer) connected via a communication network, such as a telephone line, with terminal computers possessed by many users, each user wanting to use the central computer pre-registers his password or encrypted data. When the user wants to use the central computer, he transmits the password from his own terminal computer to the central computer via the communication network, where it is compared with the registered password to validate the identity of the user.

OBJECT OF THE INVENTION

The technique of using a pre-registered password involves a problem when the user wants to use the network with through a terminal computer other than his own computer, as a computer or Internet cafe possessed by a third party. In such a case, the third party computer can be configured to secretly record a character string entered by the user from a keyboard, and the user's password is thereby easily discovered.

Further, when the pre-registered password method is employed, and the user is permitted to set his own password, and in particular, when the user is a novice, the user often tends to use a common phrase, such as his own name, birth date, etc., which can be easily decoded. Furthermore, in utilizing this method it may be necessary to make the password long for security purposes, thereby making it difficult for the user to memorize the password. For this reason the novice user often notes the password on a notebook or the

like, allowing for the possibility that the secrecy of the password could be compromised should the notebook be stolen.

In addition, since the user's identity is generally checked only at the start of a user's session with the central computer, if the user temporarily leaves the terminal computer, there is a danger that an unauthorized user could use the terminal computer to access central computer. For these reasons, the use of a password system may present a security problem under certain conditions.

It is therefore an object of the present invention to solve the above problems and to provide a user identifying method which even a novice can easily use, and by which a password cannot be easily discovered by others.