

What is claimed is:

1. A hardware authentication server, comprising: a processor; and a memory having instructions stored thereon; wherein the instructions, when executed by the processor, cause the processor to obtain telecommunication user information from a hardware telecommunications server, and obtain merchant user information from a hardware merchant server, based on an end-user's cell phone number; and compare the telecommunication user information with the merchant user information according to a predetermined authentication mode, and return a comparison result to the merchant server; wherein the authentication mode comprises: full cell phone number authentication mode, half cell phone number authentication mode, full cell phone number and full user information authentication mode, and half cell phone number and half user information authentication mode; wherein when in the half cell phone number authentication mode, or the half cell phone number and half user information authentication mode, the merchant server continues to carry out comparison of a complete cell phone number and user information.

2. An authentication system, comprising: a hardware telecommunications server; a hardware authentication server; and a hardware merchant server, wherein the telecommunications server provides telecommunication user information to the authentication server based on an end-user's cell phone number, the merchant server provides merchant user information to the authentication server based on the end-user's cell phone number, and the authentication server compares the telecommunication user information obtained from the telecommunications server, and the merchant user information obtained from the merchant server according to a predetermined authentication mode, and returns a comparison result to the

merchant server; wherein the authentication mode comprises: full cell phone number authentication mode, half cell phone number authentication mode, full cell phone number and full user information authentication mode, and half cell phone number and half user information authentication mode; wherein when in the half cell phone number authentication mode, or the half cell phone number and half user information authentication mode, the merchant server continues to carry out comparison of a complete cell phone number and user information.

3. The authentication system according to claim 2, wherein the telecommunications server uses a method of adding user information to a webpage to provide the telecommunication user information to the authentication server, or the authentication server obtains the telecommunication user information from the telecommunications server according to the end-user's IP or IP+Port message.

4. An authentication method, comprising: providing, by a hardware merchant server, merchant user information to a hardware authentication server based on an end-user's cell phone number; providing, by a hardware telecommunications server, telecommunication user information to the authentication server based on the end-user's cell phone number; and carrying out, by the authentication server, comparison of the telecommunication user information obtained from the telecommunications server and the merchant user information obtained from the merchant server according to a predetermined authentication mode, and returning a comparison result to the merchant server; wherein the authentication mode comprises: full cell phone number authentication mode, half cell phone number authentication mode, full cell phone number and full user information authentication mode, and half cell phone number and half user information

authentication mode; wherein when in the half cell phone number authentication mode, or the half cell phone number and half user information authentication mode, the merchant server continues to carry out comparison of a complete cell phone number and user information.

5. The authentication method according to claim 4, wherein the authentication method comprises: generating, by the merchant server, a code comparison request code which contains a merchant abbreviation, the end-user's cell phone number, a time stamp and a random code; sending the code comparison request code and its corresponding merchant user information to the authentication server according to the authentication mode; generating a case code which contains an authentication abbreviation, a merchant identification code, a time stamp and a random code, after the authentication server confirms the merchant's identity and authority, forming a uniform resource locator which contains an encrypted case code, and sending information of the case code, the uniform resource locator, and remaining right to use or usage quota to the merchant server; transferring, by the merchant server, the uniform resource locator to the user's terminal; providing, by the telecommunications server, corresponding telecommunication user information to the authentication server according to a request by the end-user based on the uniform resource locator; carrying out, by the authentication server, comparison of the telecommunication user information and the merchant user information based on the encrypted case code obtained from the uniform resource locator after successful completion of decryption and checking, and sending a comparison result to the merchant server; and carrying out corresponding processing according to the authentication mode after the merchant server obtains the comparison result from the authentication server.