sending party are forwarded to a receiving party through a two way message transmission service center (not shown), which is part of the existing telephone network (not shown). In the case of wireless network **16** it is part of a mobile switching center. Two way message transmission service messages may originate or terminate at any mobile, wireless, or wireline device **22** (**FIG. 1**), including mobile handsets, two-way pagers, wireless networked personal digital assistants, conventional wireline telephones, and desktop, or laptop personal computers. Two way message transmission service permits the sending of text, numeric, or alphanumeric messages.

[**0034**] As an illustrative example, short message service (SMS) will be discussed as it is implemented in the GSM (global system for mobiles) wireless network. Implementation in other mobile phone systems and in two-way, digital paging systems is very similar. In GSM, SMS messages can be up to 160 characters in length. The messages are sent through the network's signaling path and so may be sent and received simultaneously with GSM voice, data and fax calls.

[**0035**] As previously discussed, the present invention can be implemented using the current, native capabilities of two-way wireless devices. Most GSM phones have built-in functionality that allows a user to automatically answer a received message by entering a character, pushing a button, or navigating a menu. In this case, the approval message would be received as an SMS message at the GSM phone and the user may hear the phone beep, vibrate or otherwise signal the user who may see a message as follows:

[**0036**] >Charge approval: Smithville Diner-$34.50. Respond "**1**" to approve or "**2**" to disapprove<

[**0037**] Send response? ("Enter" for yes or "Clear" for no)

[**0038**] The last line is automatically presented to the user as part of the phone's normal function. At this point, the user presses enter and gets a message from the phone:

[**0039**] Type response and press "Enter" to send. On some phones this message is generated only after navigating a "response menu." In any case, to approve the user presses "**1**" and then "Enter". To disapprove, the user presses "**2**" and then enter. The approval response is sent back to the processing center and the transaction is complete from the user's perspective.

[**0040**] While the above-described system works well, user interaction according to the invention can be made even simpler and potentially more secure through the use of a communication device that includes specialized hardware and software for implementing the invention. The hardware includes keys or soft key functions for "approve" and "disapprove" and possibly others which are related to the payment authorization service of the invention. The software includes an approval protocol for more efficiently transmitting and receiving transaction information; microcode for automatically formatting and presenting the transaction information, eliminating the need for text like, "Respond '**1**' to approve or '**2**' to disapprove"; and microcode for detecting the user's response. The software also optionally includes enhanced security features. Such communication devices would make use of the service less obtrusive to users. Financial institutions could encourage use by providing devices and/or prepaid wireless service in return for user participation.

[**0041**] A special purpose approval protocol can be implemented to enhance the present invention. Such a protocol can have several embodiments. One embodiment uses IP enabled wireless terminals. Such devices typically support Java Remote Method Invocation (RMI) and the IPSec protocol for end to end message encryption and device authentication and are readily apparent to those skilled in the art. A wireless device can include a Java Bean that implements the user interface request for approval.

[**0042**] Alternatively there can be included a secure socket and web server push model. The user's device executes a web client using a standard protocol (WAP, HTML, . . .). Where the client device is not capable of Java RMI or IP Sec, a special purpose protocol can be implemented. The protocol typically contains two messages: one for requesting approval and one for either accepting or rejecting the request. This could, for example, include an extension to the native messaging protocols for the device in question such as GSM's SMS. In this case the existing protocol is extended to identify the special context of the message. The message body provides structured fields for the relevant information and is well known in the art.

[**0043**] Further, the entire message can be encrypted using the mechanisms of the native protocols, however, the message body itself might use digital signature and encryption technology if necessary and readily apparent to those skilled in the art.

[**0044**] **FIG. 4** illustrates the method of a personal communication device which specifically implements the invention as described above. An approval protocol request message containing the appropriate transaction information is received from the credit account processing center (Block **64**). An optional security check, as described above, can be performed (Block **66**). Transaction information is then presented to the user for approval (Block **68**). The device detects a response from the user (Block **70**) by the user pressing one of an approval or disapproval button or soft key. It is, however, also possible to implement this feature using voice response hardware or software. An appropriate approval protocol response is sent back to the processing center through the network (Block **72**) based on the user's response which was detected at (Block **70**).

[**0045**] A personal communication device **22**, **FIG. 5**, which can be used to implement some aspects of the invention includes of a controller **74**, which includes a microprocessor **76**, that controls the operation of device **22**. In the case of a pager or phone, microprocessor **76** is typically an embedded controller, digital signal processor, or some combination of the two. Controller **74** also includes a buffer **78** to store displayed messages and detected inputs. In the case of a personal computer system this can include the central processing unit (CPU). A memory **80** includes at least a read-only memory (ROM) which stores computer code that operates device **22**. Controller **74** uses this code to perform the operations required by the user, including implementing the invention. Memory **80** can also include "on-board" random-access memory (RAM) used to store, for example, a personal telephone directory, saved text messages, and similar information. An Encoder/decoder **82** encodes and decodes text messages. In some cases Encoder/decoder **82** can be integrated into controller **74**. If device **22** is a wireless device, RF unit **84** and antenna **86** provide communication with wireless network **16** (**FIG. 1**).