

ing, from a mobile device is desirable. In addition to balance information, the ability to invoke other financial institution operations while mobile is desirable. Such other operations include funds transfer between accounts, selection of different payment sources or accounts from a particular financial institution, remittance and payment, inquiry and payment of loans, and the like, at any time and anywhere, without requiring an appearance at a banking facility in person or at a PC terminal with internet connectivity.

[0019] Some online financial service providers, e.g. Check-Free Corporation, offer a service known as “bill aggregation” or “bill presentment,” whereby multiple payment obligations are collected into a centralized computer facility and provided to the consumer as a list. For example, U.S. Pat. No. 6,289,322 to Kitchen et al. describes a method of electronically presenting billing information, which can be used in connection with “online bill payment.” This method includes receiving billing information associated with a plurality of different billers, different portions of which represent bills for different people (as payers). Billing information is consolidated for each registered user or payer. Individual customers can go to an Internet web site to register an account, add information about billers, add information about financial institutions, and pay bills online. However, the system described in U.S. Pat. No. 6,289,322 patent is intended for users with a PC and Internet access and has several shortcomings for use in a mobile environment. One particular shortcoming is that a web-based user interface actually provides too much information about the user’s accounts and bill detail, and is difficult to view and navigate on a small mobile device. Another shortcoming is the lack of integration of online bill payment with the use of multiple and conveniently selectable different payment sources.

[0020] U.S. Published Pat. App. No. 20050086164 to Kim et al. describes a method for utilizing a mobile phone to pay a charge of goods or services rendered through approval of a mobile phone network. First, a buyer uses his or her mobile phone to connect to a payment transaction server. A buyer and “merchant store” identification code (for each) and a bill for the goods or services is transmitted to the payment transaction server. The payment transaction server examines the data received from the mobile phone and determines the approval of the transaction based on a balance corresponding to the buyer identification code. When approved, an approval notification is sent to a terminal at the merchant store. After the confirmation from the approval notification at the merchant store, the buyer receives the goods or services.

[0021] A system as described in the Kim et al. publication depends on having a pre-established balance in a prepaid account established by the buyer with the mobile phone networks. Furthermore, the method involves delivering voice prompts to the user via the mobile phone and receiving the user’s selection of options by activation of keys on the mobile phone keypad. While such a device and system is certainly one way that financial transactions can be conducted using a mobile phone, the well-known method of voice prompts for keypad data entry is slow and awkward, and is a known source of consumer frustration. Furthermore, modern mobile devices are more than just a telephone—many such devices now include displays, controls, and keypads, and provide more ways for wireless interaction than voice messages and prompts.

[0022] Mobile communication devices and systems have now progressed beyond the limitations of voice prompts and

telephone keypad data entry and option selection. The first generation (1G) of mobile telephone systems was limited to analog radio voice transmission, and has been surpassed by second generation (2G) systems that provide digital signal transmission features and enable greater functionality. Present mobile device communication systems (beyond 2G) are now all digital and utilize data communication channels for carrying voice signals as well as other data signals. Features enabled by the digital data communications include Short Message System (SMS) message for text messaging, ringtone downloads, and other features. Consumer-oriented mobile communication systems are now progressing beyond advanced second generation (2.5G) technologies into third generation (3G) technologies that provide high speed broadband data connectivity for mobile devices. New 3G systems and devices permit capabilities such as full Internet usage on mobile devices, SMS messaging capability, person-to-person direct calling, direct download of content such as ringtones, music, and videos, and many other features.

[0023] Significantly, modern mobile devices now involve highly converged PDA and telephone capabilities. New mobile devices possess color displays, touch screens, full telephone capability as well as music playback, streamed videos, memory for data storage (e.g. memory cards), wireless headsets, infrared data connections, and many other features. A system that facilitates convenient, secure, and rapid mobile financial transactions will invariably take advantage of available communication bandwidth and device features in the modern 2.5G and 3G networks and their devices. However, prior to the present invention there has been no effective attempt to identify the usage methodologies and features that consumers want—those that allow convenient, secure, and rapid mobile financial transactions, in a way that is consumer-friendly and allows reduction of personal possession clutter.

[0024] In particular, consumers require strong security in using their devices. They require speedy, convenient check-out if used at retail point of sale (POS). They must be able to “PayAnyone”, at any time, in any of a number of different ways. They must be provided with the information they need to conduct a transaction—and only such information as is necessary—and this information must be current. Similarly, financial institutions require strong security, which includes authentication, for transactions initiated in a mobile environment. There must be an opportunity for revenue opportunities as well as user retention. There must be opportunity to lower the expense of customer service by use of automation. For retailers and entities that send bills, there must be rapid payment. Any POS transactions must clear quickly. Charges based on credit cards and debit cards must be authenticated and clear quickly—fraud prevention and reduction is paramount both for financial institutions as well as billing entities and other payees. Facilitation of, or at least compatibility with, customer loyalty programs is highly desirable.

[0025] All of these requirements—some of which are merely desirable but some are absolutely essential—present a challenge to the present day mobile communication and financial services infrastructure. Prior to the present invention, no system has been made that addresses all of these features, goals, and desires of a mobile communication based financial transaction system in a satisfactory manner.

[0026] Therefore, there is a need for a comprehensive solution that allows consumers using mobile devices to consolidate their bills and other payment obligations, pay such bills and other obligations at anytime and anywhere, using any