

24 connected to the base **22** and movable relative thereto. The touch screen display **24** includes a display device **26** and a touch-sensitive input surface **28** overlying the display device **26**. The electronic device **20** includes a feedback mechanism **26** including a switch **28** moveable relative to the base **22** for actuating in response to application of a force to the touch-sensitive input surface **28** causing movement of the touch screen display **24**. Operational components are disposed between the touch screen display **24** and the base **22** for operation of the electronic device **20**. The touch-sensitive input surface **28** is connected to a processor **40** of the portable electronic device **20** via a controller **34**.

[0024] Referring now to FIG. 3, there is shown therein a block diagram of an exemplary embodiment of a portable electronic device **20**. The portable electronic device **20** includes a number of components such as the processor **40** that controls the overall operation of the portable electronic device **20**. Communication functions, including data and voice communications, are performed through a communication subsystem **42**. Data received by the portable electronic device **20** can be decompressed and decrypted by decoder **44**, operating according to any suitable decompression techniques (e.g. YK decompression, and other known techniques) and encryption techniques (e.g. using an encryption techniques such as Data Encryption Standard (DES), Triple DES, or Advanced Encryption Standard (AES)). The communication subsystem **42** receives messages from and sends messages to a wireless network **1000**. In this exemplary embodiment of the portable electronic device **20**, the communication subsystem **42** is configured in accordance with the Global System for Mobile Communication (GSM) and General Packet Radio Services (GPRS) standards. The GSM/GPRS wireless network is used worldwide and it is expected that these standards will be superseded eventually by Enhanced Data GSM Environment (EDGE) and Universal Mobile Telecommunications Service (UMTS). New standards are still being defined, but it is believed that they will have similarities to the network behavior described herein, and it will also be understood by persons skilled in the art that the embodiments described herein are intended to use any other suitable standards that are developed in the future. The wireless link connecting the communication subsystem **42** with the wireless network **1000** represents one or more different Radio Frequency (RF) channels, operating according to defined protocols specified for GSM/GPRS communications. With newer network protocols, these channels are capable of supporting both circuit switched voice communications and packet switched data communications.

[0025] Although the wireless network **1000** associated with portable electronic device **20** is a GSM/GPRS wireless network in one exemplary implementation, other wireless networks may also be associated with the portable electronic device **20** in variant implementations. The different types of wireless networks that may be employed include, for example, data-centric wireless networks, voice-centric wireless networks, and dual-mode networks that can support both voice and data communications over the same physical base stations. Combined dual-mode networks include, but are not limited to, Code Division Multiple Access (CDMA) or CDMA2000 networks, GSM/GPRS networks (as mentioned above), and future third-generation (3G) networks like EDGE and UMTS. Some other examples of data-centric networks include WiFi 802.11, Mobitex™ and DataTAC™ network communication systems. Examples of other voice-centric

data networks include Personal Communication Systems (PCS) networks like GSM and Time Division Multiple Access (TDMA) systems. The processor **40** also interacts with additional subsystems such as a Random Access Memory (RAM) **46**, a flash memory **48**, the display device **26** with the input surface **28**, an auxiliary input/output (I/O) subsystem **50**, a data port **52**, a speaker **54**, a microphone **56**, short-range communications **58** and other device subsystems **60**.

[0026] Some of the subsystems of the portable electronic device **20** perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. By way of example, the display **28** and the input surface may be used for both communication-related functions, such as entering a text message for transmission over the network **1000**, and device-resident functions such as a calculator or task list.

[0027] The portable electronic device **20** can send and receive communication signals over the wireless network **1000** after network registration or actuation procedures have been completed. Network access is associated with a subscriber or user of the portable electronic device **20**. To identify a subscriber according to the present embodiment, the portable electronic device **20** uses a SIM/RUIM card **62** (i.e. Subscriber Identity Module or a Removable User Identity Module) to be inserted into a SIM/RUIM interface **64** in order to communicate with a network. The SIM/RUIM card **62** is one type of a conventional “smart card” that can be used to identify a subscriber of the portable electronic device **20** and to personalize the portable electronic device **20**, among other things. In the present embodiment the portable electronic device **20** is not fully operational for communication with the wireless network **1000** without the SIM/RUIM card **62**. By inserting the SIM/RUIM card **62** into the SIM/RUIM interface **64**, a subscriber can access all subscribed services. Services may include: web browsing and messaging such as e-mail, voice mail, Short Message Service (SMS), and Multimedia Messaging Services (MMS). More advanced services may include: point of sale, field service and sales force automation. The SIM/RUIM card **62** includes a processor and memory for storing information. Once the SIM/RUIM card **62** is inserted into the SIM/RUIM interface **64**, it is coupled to the processor **40**. In order to identify the subscriber, the SIM/RUIM card **62** can include some user parameters such as an International Mobile Subscriber Identity (IMSI). An advantage of using the SIM/RUIM card **62** is that a subscriber is not necessarily bound by any single physical portable electronic device. The SIM/RUIM card **62** may store additional subscriber information for a portable electronic device as well, including datebook (or calendar) information and recent call information. Alternatively, user identification information can also be programmed into the flash memory **48**.

[0028] The portable electronic device **20** is a battery-powered device and includes a battery interface **66** for receiving one or more rechargeable batteries **68**. In at least some embodiments, the battery **68** can be a smart battery with an embedded microprocessor. The battery interface **66** is coupled to a regulator (not shown), which assists the battery **68** in providing power V+ to the portable electronic device **20**. Although current technology makes use of a battery, future technologies such as micro fuel cells may provide the power to the portable electronic device **20**.

[0029] The portable electronic device **20** also includes an operating system **70** and software components **72** to **82** which