

sent and received messages may be stored remotely from the portable electronic device **210** such as in a data store of an associated host system that the portable electronic device **210** communicates with.

[0023] The software applications can further include a device state module **840**, a Personal Information Manager (PIM) **842**, and other suitable modules (not shown). The device state module **840** provides persistence, i.e., the device state module **840** ensures that important device data is stored in persistent memory, such as the flash memory **808**, so that the data is not lost when the portable electronic device **210** is turned off or loses power.

[0024] The PIM **842** includes functionality for organizing and managing data items of interest to the user, such as, but not limited to, e-mail, contacts, calendar events, voicemails, appointments, and task items. A PIM application has the ability to send and receive data items via the wireless network **850**. PIM data items may be seamlessly integrated, synchronized, and updated via the wireless network **850** with the mobile device subscriber's corresponding data items stored and/or associated with a host computer system. This functionality creates a mirrored host computer on the portable electronic device **210** with respect to such items. This can be particularly advantageous when the host computer system is the mobile device subscriber's office computer system.

[0025] The portable electronic device **210** also includes a connect module **844**, and an IT policy module **846**. The connect module **844** implements the communication protocols that are required for the portable electronic device **210** to communicate with the wireless infrastructure and any host system, such as an enterprise system, that the portable electronic device **210** is authorized to interface with.

[0026] The connect module **844** includes a set of APIs that can be integrated with the portable electronic device **210** to allow the portable electronic device **210** to use any number of services associated with the enterprise system. The connect module **844** allows the portable electronic device **210** to establish an end-to-end secure, authenticated communication pipe with the host system. A subset of applications for which access is provided by the connect module **844** can be used to pass IT policy commands from the host system to the portable electronic device **210**. This can be done in a wireless or wired manner. These instructions can then be passed to the IT policy module **846** to modify the configuration of the portable electronic device **210**. Alternatively, in some cases, the IT policy update can also be done over a wired connection.

[0027] The IT policy module **846** receives IT policy data that encodes the IT policy. The IT policy module **846** then ensures that the IT policy data is authenticated by the portable electronic device **210**. The IT policy data can then be stored in the flash memory **806** in its native form. After the IT policy data is stored, a global notification can be sent by the IT policy module **846** to all of the applications residing on the portable electronic device **210**. Applications for which the IT policy may be applicable then respond by reading the IT policy data to look for IT policy rules that are applicable.

[0028] The IT policy module **846** can include a parser (not shown), which can be used by the applications to read the IT policy rules. In some cases, another module or application can provide the parser. Grouped IT policy rules, described in more detail below, are retrieved as byte streams, which are then sent (recursively, in a sense) into the parser to determine the values of each IT policy rule defined within the grouped IT policy rule. In at least some embodiments, the IT policy

module **846** can determine which applications are affected by the IT policy data and send a notification to only those applications. In either of these cases, for applications that aren't running at the time of the notification, the applications can call the parser or the IT policy module **846** when they are executed to determine if there are any relevant IT policy rules in the newly received IT policy data.

[0029] All applications that support rules in the IT Policy are coded to know the type of data to expect. For example, the value that is set for the "WEP User Name" IT policy rule is known to be a string; therefore the value in the IT policy data that corresponds to this rule is interpreted as a string. As another example, the setting for the "Set Maximum Password Attempts" IT policy rule is known to be an integer, and therefore the value in the IT policy data that corresponds to this rule is interpreted as such.

[0030] After the IT policy rules have been applied to the applicable applications or configuration files, the IT policy module **846** sends an acknowledgement back to the host system to indicate that the IT policy data was received and successfully applied.

[0031] The dial pad module **895** may be a part of the connect module **844** or may be a separate module, as illustrated in FIG. 2. In either scenario, the dial pad module **895** is used by the connect module **844** when a user of the portable electronic device desires to dial and connect to a telephone number. The dial pad module **895** includes instructions to implement one or more telephone number dialing methods. Examples of dialing methods that may be implemented are described below.

[0032] Other types of software applications can also be installed on the portable electronic device **210**. These software applications can be third party applications, which are added after the manufacture of the portable electronic device **210**. Examples of third party applications include games, calculators, utilities, etc, as well as third party APIs. Other examples of third party applications include updates to the dial pad module **895**. The updates to the dial pad module **895** may include embedded software applications that provide replacement dialing instructions for the dial pad module **895**.

[0033] The additional applications can be loaded onto the portable electronic device **210** through at least one of the wireless network **850**, the auxiliary I/O subsystem **812**, the data port **814**, the short-range communications subsystem **822**, or any other suitable device subsystem **824**. This flexibility in application installation increases the functionality of the portable electronic device **210** and may provide enhanced on-device functions, communication-related functions, or both. For example, secure communication applications may enable electronic commerce functions and other such financial transactions to be performed using the portable electronic device **210**.

[0034] The data port **814** enables a subscriber to set preferences through an external device or software application and extends the capabilities of the portable electronic device **210** by providing for information or software downloads to the portable electronic device **210** other than through a wireless communication network. The alternate download path may, for example, be used to load an encryption key onto the portable electronic device **210** through a direct and thus reliable and trusted connection to provide secure device communication.

[0035] The data port **814** can be any suitable port that enables data communication between the portable electronic