

transaction ID from the subscriber service manager **120** to the subscriber **342** is via a return E-mail message.

Referring to FIG. 3C, an embodiment of Subscriber Service Manager **120** provides the option to allow the subscriber to designate a transaction ID rather than have the Subscriber Service Manager generate the transaction ID. If the subscriber exercises this option, the subscriber first proposes a transaction ID **350**. The Subscriber Service Manager determines if the proposed transaction ID is acceptable **352**. If the transaction ID is acceptable (**352-Yes**), the transaction ID and a corresponding time stamp or time limit value is stored in a database **356**. If the transaction ID is not acceptable, perhaps because it is already in use or because it is not in the correct format (**352-No**), the subscriber is prompted to propose a new transaction ID **354** or use the default transaction ID generation option of FIG. 3B.

Referring to FIG. 3A, once a transaction ID has been generated **336**, other processing may be performed **370** before the Subscriber Service Manager **120** is finished.

In a preferred embodiment, the transaction ID is stored to verify subsequent customization messages directed to Enhanced Service Platform **100** (discussed in detail below). The stored time stamp can be used to facilitate administrative tasks. For instance, the time stamp can be used to flag any subscriber customization messages that remain "unverified," after a predetermined amount of time. The flagged entries can be logged or removed from a subscriber customization message queue.

Once the subscriber has obtained a transaction ID using transaction ID generation module **336**, the subscriber may enter new data or update previously stored data in their profile. Ideally, the subscriber promptly creates and sends a customization message that includes the new or updated data along with the aforementioned transaction ID to enhanced service platform **100**. In one embodiment, the message further includes the date in which the transaction ID was generated. As discussed in detail in the following section, if the customization message includes the wrong transaction ID, any data included in the message is not entered into the subscriber's profile.

The Customization Module

Referring to FIGS. 4A and 4B, there are shown high-level flow diagrams of an embodiment of Customization Module **128**. The Customization Module **128** receives a Message **405**. Message **405** may either be in the form of an E-mail message, the contents of a web based form, or other forms of electronic communication.

If Message **405** is a valid customization message from a legitimate subscriber to one of the Enhanced Service Platform's services (**410-Yes**), Customization Module **128** performs a set of steps to process the message. First, message **405** is queried for a transaction ID **412**. The transaction ID is preferably a transaction ID assigned to the subscriber by the Subscriber Service Manager **120** as described in detail in the Subscriber Service Manager section.

If Message **405** is in the form of an E-mail message, the subscriber profile data may be indicated in the E-mail message in a variety of ways. For example, the data may be encoded in the body of the E-mail message, or encoded in the E-mail network routing information. One of skill in the art will appreciate that the data may or may not be encrypted and, further may be in the form of a high level language that contains complex instructions.

If a transaction ID is not found in the message (**412-No**), a Failure Message is sent **460** to the originator of the

message and Exit procedure **420** is called. The Failure Message **460** may be in the form of a reply E-mail. Alternatively, if Customization Message **405** was generated using a web page, Failure Message **460** may be a failure notification that is posted on a reply web page.

If Message **405** contains a Transaction ID (**412-Yes**), Customization Module **128** queries database module **132** (FIG. 1) for a request record corresponding to the transaction ID contained in the message **414**. Each request record has a stored copy of a transaction ID generated in response to a subscriber transaction-ID request by the Subscriber Service Manager. When a request record corresponding to the transaction ID in the message **405** is not located (**414-No**), a failure message is sent **460** and the process ends **420**. If a request record is located containing a stored copy of a transaction ID that corresponds to the transaction ID in Message **405** (**414-Yes**), the Customization Module stores the subscriber profile data (also called customization data) **416** that is in Message **405**. In some embodiments, if the subscriber profile data includes an E-mail address, the E-mail address may be validated before it is registered. For instance, the E-mail address may be tested to see that it meets basic E-mail address formatting requirements, and it may be compared against a "reject list" of E-mail addresses that Enhanced Service Platform **100** is programmed to not accept. Alternately, the E-mail address may be compared with a list of permitted domains that the Enhanced Service Platform **100** is programmed to accept. Other types of subscriber-supplied parameters within message **405**, such as telephone numbers, zip codes, and spelling of text, may be verified in a similar manner. That is, the Customization Module may verify that at least certain ones of the subscriber-supplied parameters are each within a corresponding range of values, and may furthermore notify the subscriber when a subscriber-supplied parameter is not within the corresponding range of values. After the subscriber profile is updated with the customization data in Message **405**, a confirmation message is sent to the subscriber **418** and the process ends **420**.

Referring to FIGS. 4A and 4B, if message **405** is not a valid customization request (**410-No**), the Customization Module determines whether message **405** is a non-delivery message **430**. If message **405** is a non-delivery message (**430-Yes**), a database is searched **432** for a record corresponding to the E-mail address to which delivery failed. When such a corresponding record is found, the system attempts to notify the subscriber **434**. Typical notification **434** consists of leaving a voice message in the subscriber's voice mail box indicating that an E-mail address specified by the subscriber may be invalid or inoperative. Alternately, Customization Module **128** may telephone the identified subscriber to provide an appropriate notification (i.e., voice message) that an E-mail address specified by the subscriber may be invalid or inoperative. Then the process ends **420**.

If Message **405** is not a valid customization request (**410-No**) and is not a non-delivery message (**430-No**), a determination is made as to whether message **405** is a request for other services **436**, such as storing the message for a subscriber, or forwarding the message to a predetermined location. If Message **405** is, in fact, a request for such a service (**436-Yes**), the specified service is performed **438** and the process ends **420**.

This exemplary process of the Customization Module **128** is not meant to be limiting in any way. This process shown is solely for purposes of explanation. Using teachings provided in this disclosure, persons skilled in the art of computer programming could implement the Customization