

#### 4.2.1 Pre-Auth/Completion

Pre-Auth/Completion sequences occur only at Network origination points. Typically, they are the result of a cardholder initiating a transaction request at a gasoline pump. The transaction acquirer determines the pre-auth amount (in production environment tests, we've seen \$35, \$50 and \$75 from various locations). The completion contains the actual amount of the completed transaction. So, for example, if we receive a pre-auth for \$50, and a completion for \$23.58, we use that second transaction to also 'release' the additional \$26.42 (i.e., of the \$50 was originally held) for use in a subsequent authorization.

There are two ways in which a completion is matched to the original pre-auth. In production environment testing, it appears the methodology used depends upon the specific Debit network (i.e., Pulse, Honor, etc.) from which the transaction was received. It doesn't appear we can trust or predict a specific network to use one way vs. another, so in approving and storing the pre-auth, we need to account for the possibility of either of the following match-up methods being used:

- a. The Authorization ID Response Code (ISO Field 38) created by OLS.Switch and returned in the pre-auth response to the Network is contained in the corresponding Field 38 of the subsequent completion request.
- b. The Retrieval Reference Number (ISO Field 37) provided by OLS.Switch and returned in the pre-auth response to the Network is contained in the corresponding Field 37 of the subsequent completion request.

To facilitate both of these methods, OLS.Switch caches the contents of Fields 37 and 38 along with the card number when logging the results of an approved pre-auth.

OLS.Switch switch ties together the Pre-Auth and its Completion in its transaction log by:

- Placing the id of the Pre-Auth into the refId of the Completion
- Placing the id of the Completion into the refId of the Pre-Auth

#### 4.2.2 Original/Reversal

Original/Reversal sequences can occur at either Network or VM origination points. Reversals use a 'standard' approach of sending in the so-called 'original data elements' to allow the authorizing system (i.e., OLS.Switch) to find the original transaction. The key to the match-up is the combination of "Original Message Type" (ISO sub-field 90.1) and "Original STAN" (90.2) provided by the originating network in the reversal. If, by using these fields, an original cannot be located, the customer's account is not affected by the reversal (note that OLS.Switch 'protects' your implementation by sending back Network Result Code '00').

OLS.Switch switch ties together the original and its reversal in its transaction log by:

- Placing the id of the original into the revRefId of the reversal
- Placing the id of the reversal into the revRefId of the original