

Issue Backgrounder:

Transaction phases and the Shipped APDU

Prepared by Johann Zeeman, CGI for ILL ASMA

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There seems to be little utility in protocol terms to the concept of transaction phases. It is not visible in any APDU. There are no procedural rules relating to transaction phases, other than the rule for identifying when one phase ends and the next begins. Its primary purpose would appear to be to allow the requester and responder state tables to be separated into two parts. It has a second, notational, function in that “tracking phase” is a convenient short hand for “when the Return variable is set to true”.

The definition of the tracking phase as beginning with receipt of the item by the requester is particularly troubling. If the Shipped message is not sent (and it is optional), the requester does not have enough information to be able to set the Return variable. There has to be the presumption of non-protocol data supplied by an operator (by looking at the printed label or form that is attached to the item when it arrives) that enables the requesting system to set the Return variable.

My conclusion therefore is that the tracking phase for both the requester and the responder should properly start with the Shipped state transition. The Shipped APDU contains the transaction type and the due date (for a returnable). It is at this point that the Return variable can (and should) be set. However, the optionality of the Shipped APDU makes this approach infeasible since the requester may not receive the APDU that causes the state transition.

There appear to be two ways out of this dilemma - one is to make the Shipped APDU mandatory; the other is to abandon the distinction between the processing and tracking phase. This latter, however, does not solve the requester’s difficulty in setting the Return variable – if the Shipped APDU is not sent, the protocol does not provide the requester with sufficient information to be able to set it.

A conservative change, therefore, might be to make (in the next edition of standard) the Shipped APDU mandatory in all cases where a returnable item is supplied. In other cases it could remain optional. In the meantime, it can be profiled as mandatory and a informal new definition of the change to the tracking phase can be used.