**SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR MAINTAINING TRANSACTION INTEGRITY OVER PUBLIC NETWORKS**

ABSTRACT OF THE INVENTION

A method for maintaining transaction integrity for transactions performed over a public network includes: receiving a transaction message corresponding to an original transaction, the transaction message including a unique, client-assigned, first identifier; in response to receiving the transaction message, assigning a unique, second identifier to the original transaction; generating a request to process the original transaction including at least a portion of the transaction message and the second identifier; transmitting the request to an issuer server to process the original transaction; receiving a first response from the issuer server in connection with the original transaction; in response to the first response, generating a second response corresponding to the original transaction including the first identifier and the second identifier; and transmitting the second response to the client. A system and computer program product for maintaining transaction integrity for transactions performed over a public network is also disclosed.

Figure 4B.