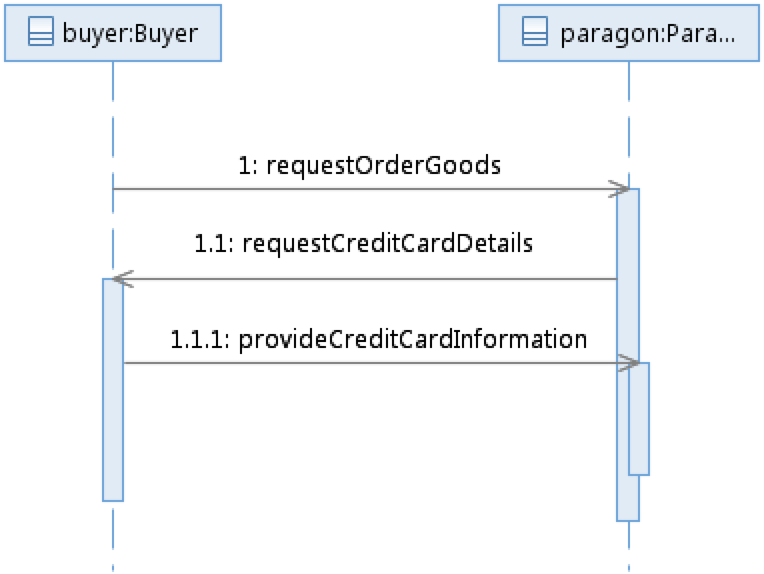
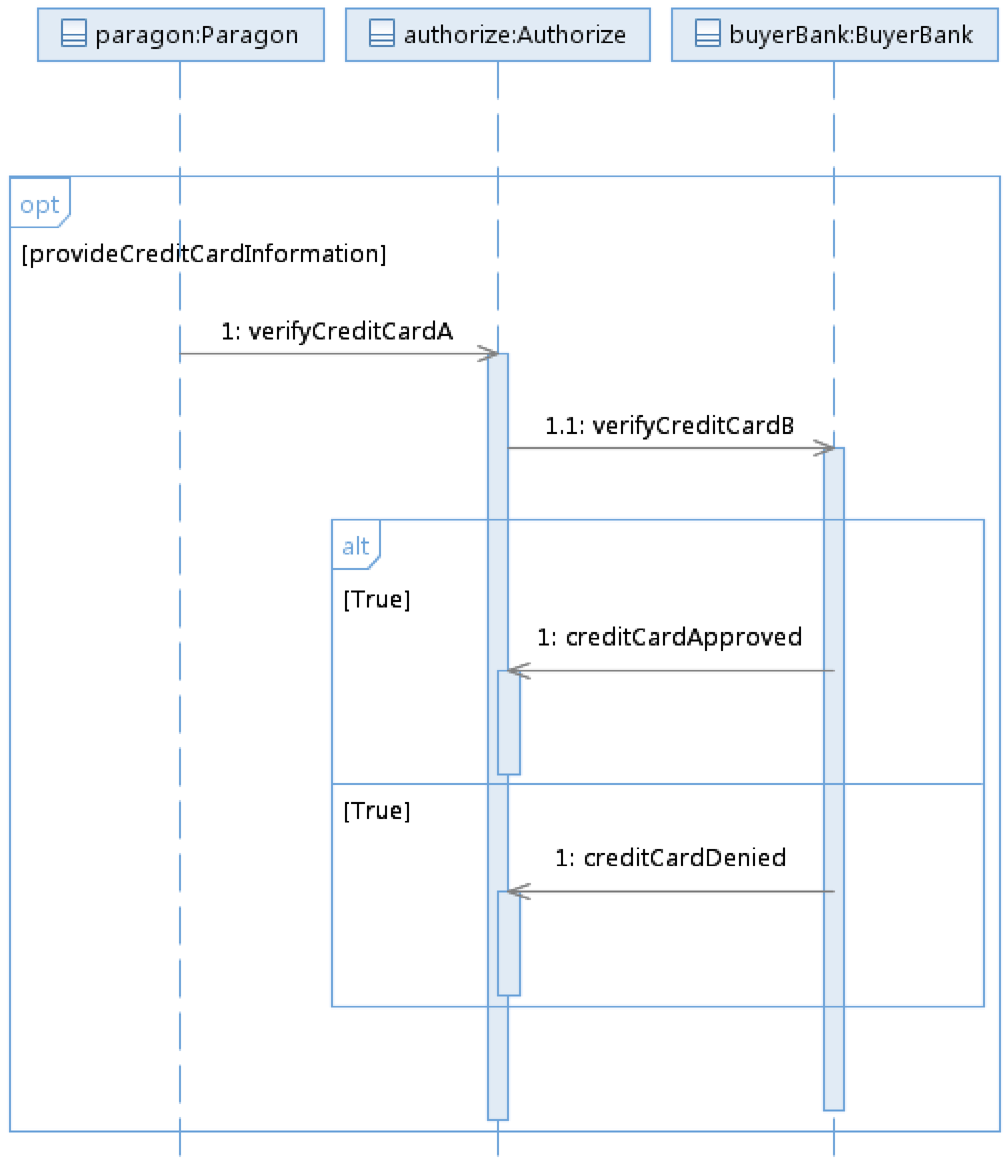
A buyer creates an order for some desired products on Paragon's website. Paragon's website shows the total price for the order. The buyer provides credit card information for payment.

SEQ 1



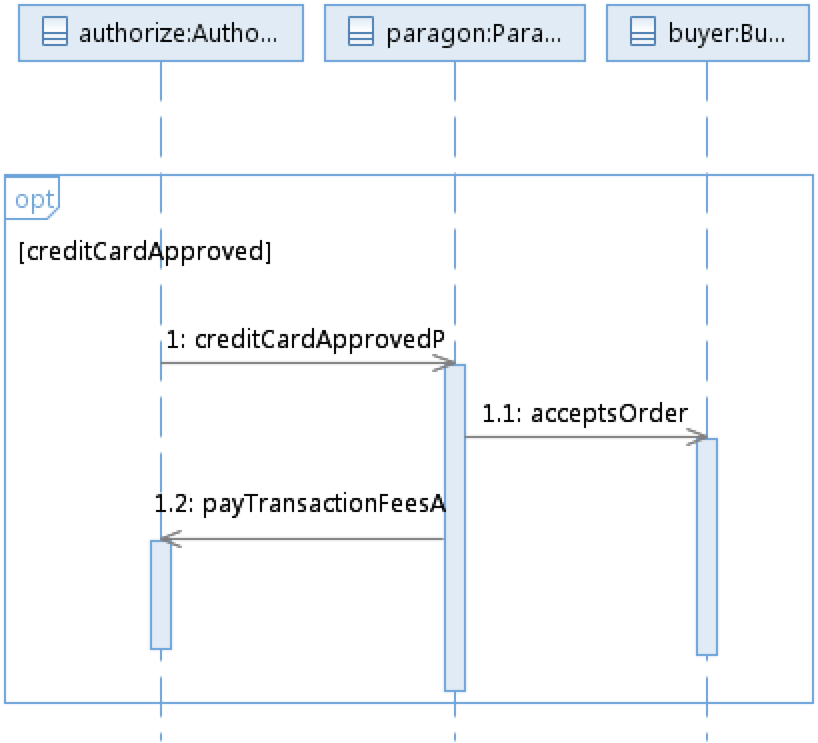
Paragon sends the credit card information to Authorize for authorization. In turn, Authorize sends the credit card information to BuyerBank for authorization. Authorize communicates BuyerBank's (approved or denied) decision back to Paragon.

SEQ 2



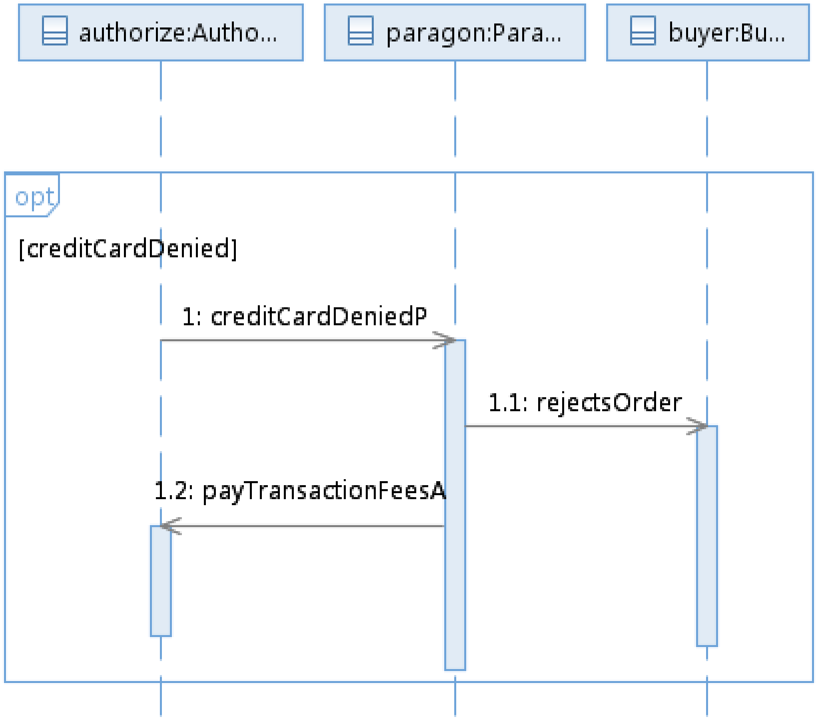
Authorize communicates BuyerBank's (approved or denied) decision back to Paragon. If the transaction is approved, then Paragon accepts the order.

SEQ 3



Conversely, if the transaction is denied, then Paragon rejects the order

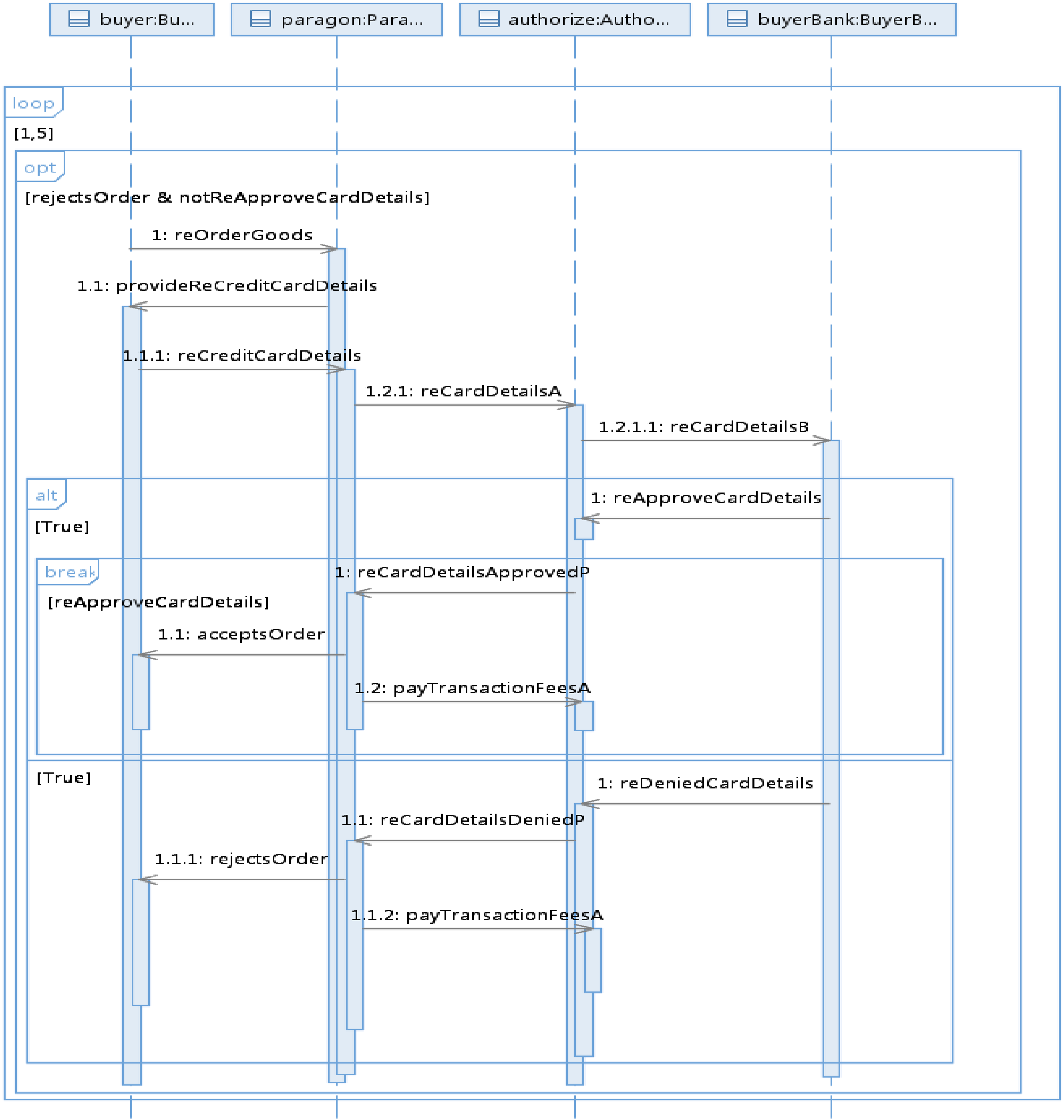
SEQ 4



In case of rejection, the buyer may retry order submission up to five times using a different credit card. For each credit card transaction, Paragon pays a transaction fee to Authorize.

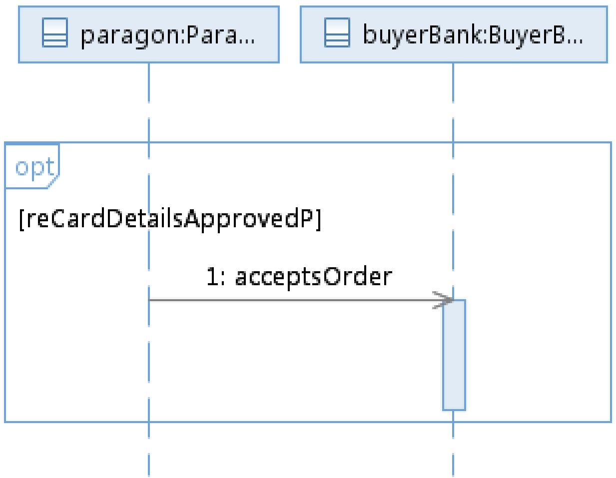
SEQ 5 in the following slide subsumes SEQ 1, 2, 3, and 4. For the purpose of providing a solution, we have provided SEQ 5 in details.

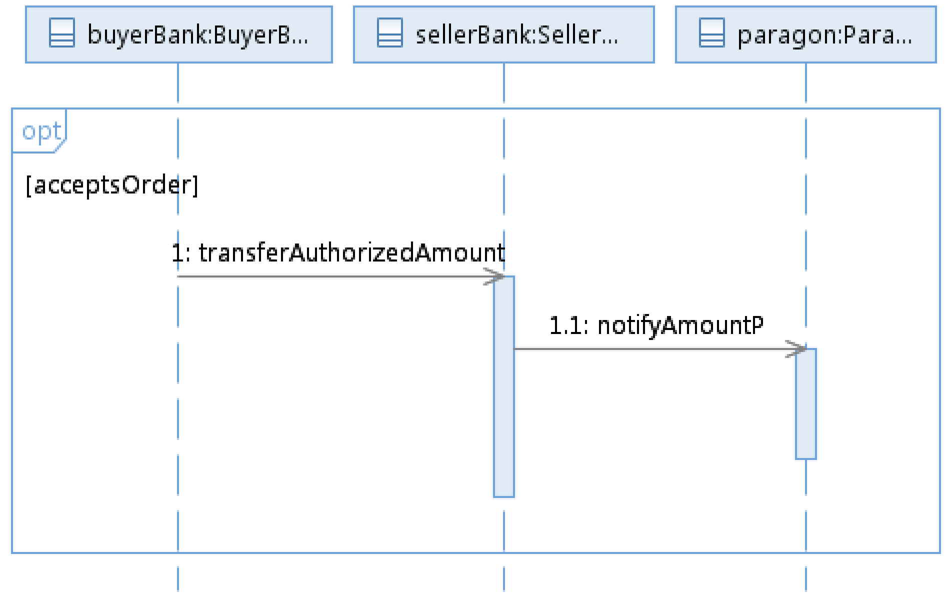
SEQ 5


buyer:Bu...
paragon:Para...
authorize:Autho...
buyerBank:BuyerB...
loop
[1,5]
opt
[rejectsOrder & notReApproveCardDetails]
1: reOrderGoods
1.1: provideReCreditCardDetails
1.1.1: reCreditCardDetails
1.2.1: reCardDetailsA
1.2.1.1: reCardDetailsB
alt
[True]
1: reApproveCardDetails
break
1: reCardDetailsApprovedP
[reApproveCardDetails]
1.1: acceptsOrder
1.2: payTransactionFeesA
[True]
1: reDeniedCardDetails
1.1: reCardDetailsDeniedP
1.1.1: rejectsOrder
1.1.2: payTransactionFeesA

For an approved transaction, BuyerBank transfers the authorized amount from the buyer’s account to Paragon’s account in SellerBank. This transfer may occur either before or after Paragon ships the goods.

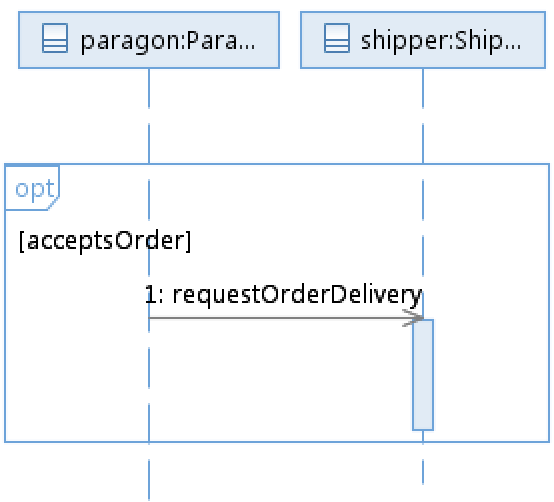
SEQ 6





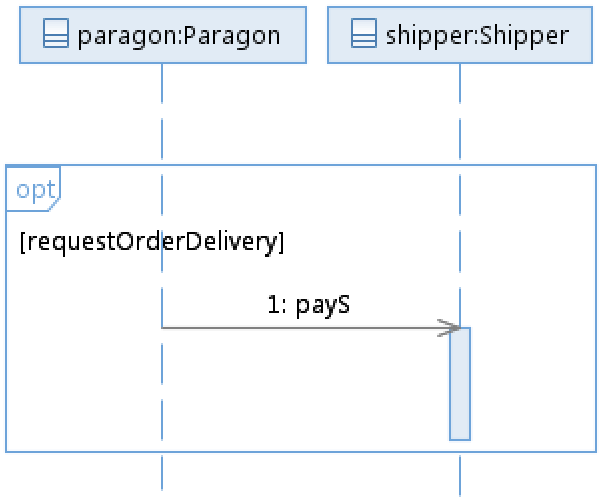
SEQ 7

SEQ 8

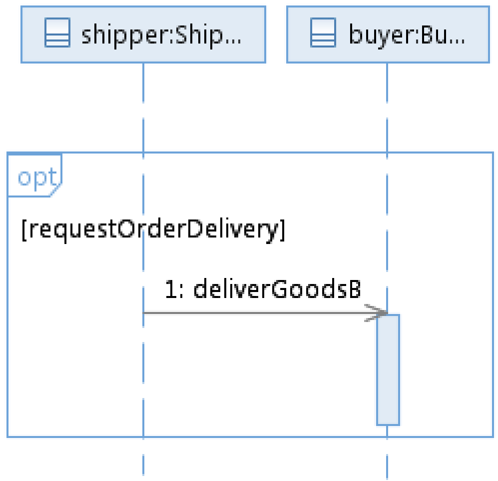


For an accepted order, Paragon requests a shipper (FedUp or UpFed) to ship the goods. Paragon pays the shipper for shipping the goods. This payment may occur either before or after the buyer receives the goods.

SEQ 9



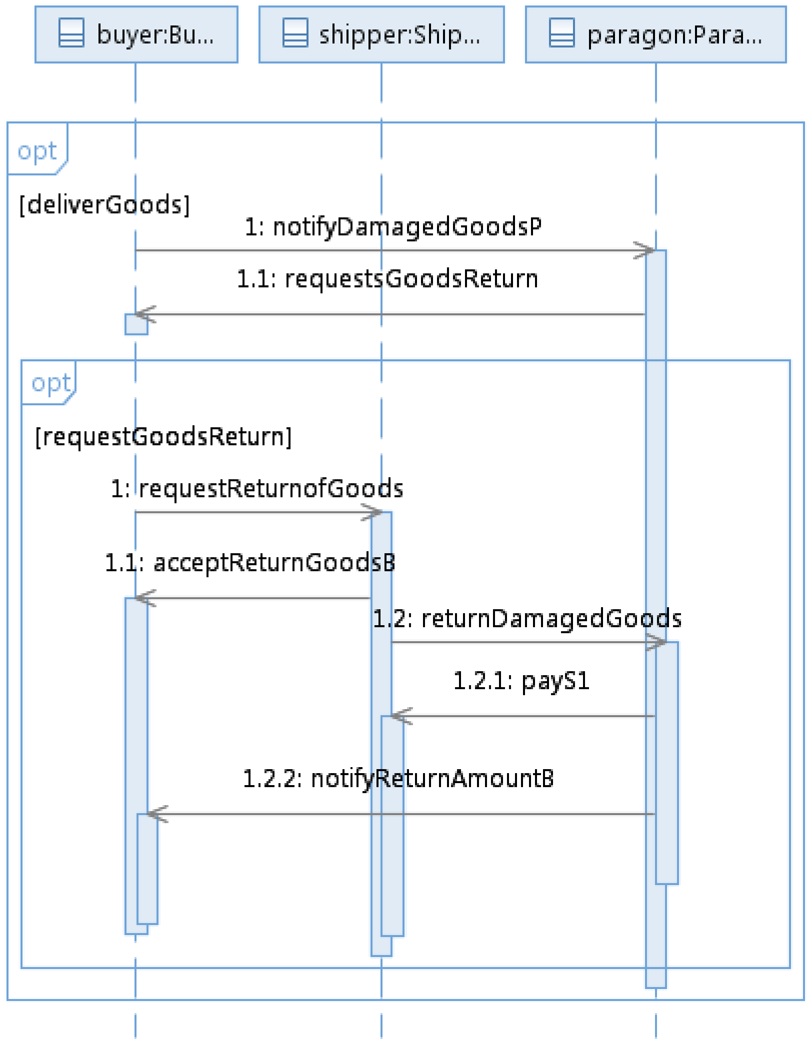
SEQ 10



Since SEQ 9 and 10 are independent from each other they can occur in any sequence

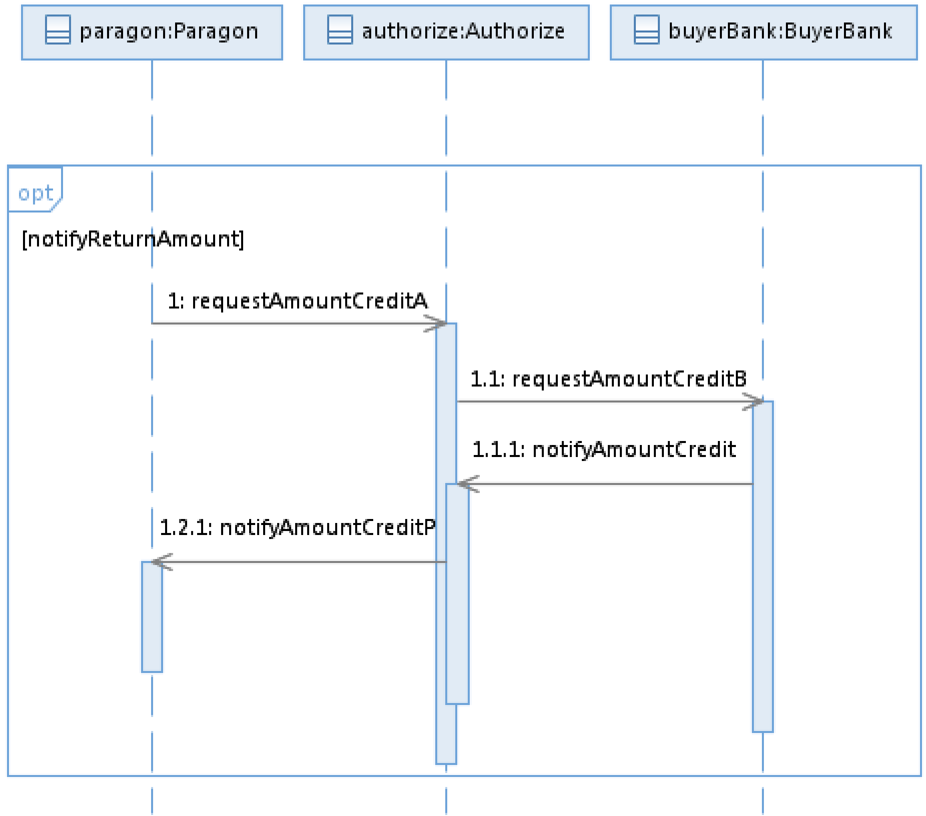
The goods may get damaged in transit. In such a case, the buyer returns the goods to Paragon–the buyer requests a shipper (FedUp or UpFed) to ship the damaged goods back to Paragon.

SEQ 11



Paragon requests Authorize to credit the buyer's credit card account with the appropriate amount. Authorize then requests BuyerBank to credit the buyer's credit card account.

SEQ 12



We can add a notification from Authorize to SellerBank regarding the debited amount.