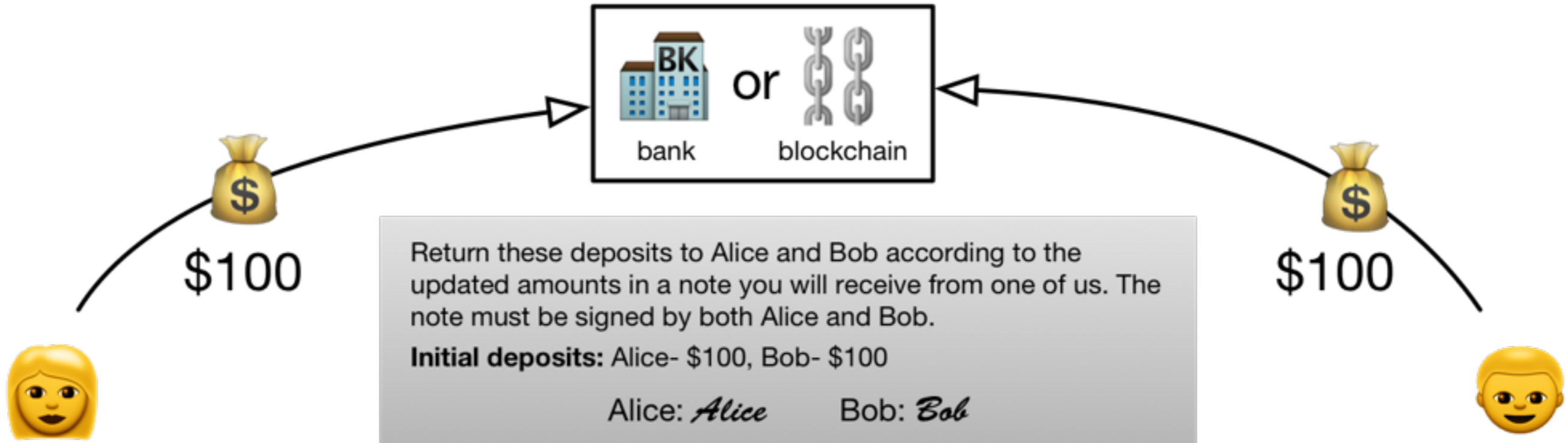


Universal Payment Channels

Scalable, anonymous, cross-currency payments

Attributes

- Uses escrow, provided by a bank or a blockchain.
- Nodes can pay one another by exchanging signed notes- the bank or blockchain is **not involved** in individual payments.
- Payments can be locked up with “smart conditions”, arbitrary Turing-complete code.
- Channels can be combined for multihop payments, allowing nodes not directly connected to pay each other.



The bank or blockchain
is not involved right now



Close this channel, transferring these updated amounts back to Alice and Bob.

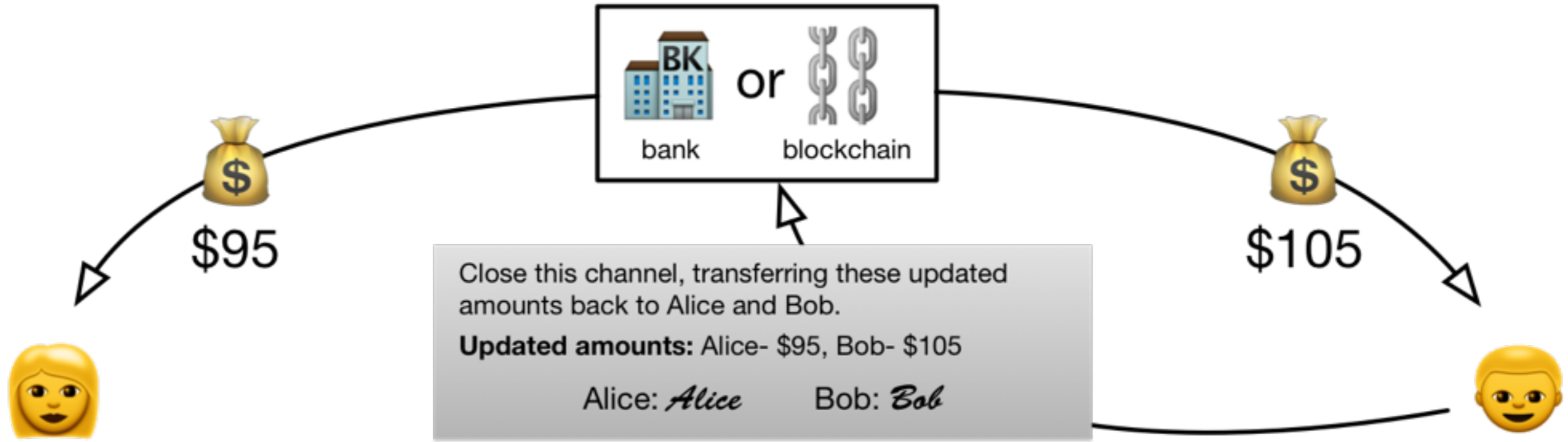
Updated amounts: Alice- \$95, Bob- \$105




Alice: *Alice*

Bob: ___



(it's like Alice is sending \$5)

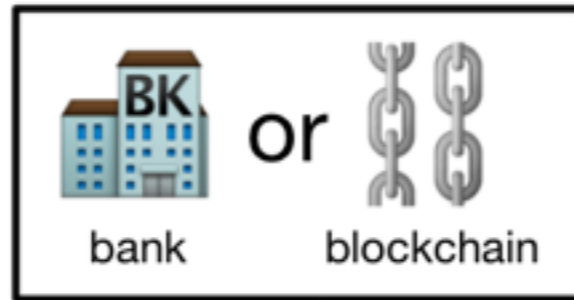


 BK  or 
bank blockchain


\$95

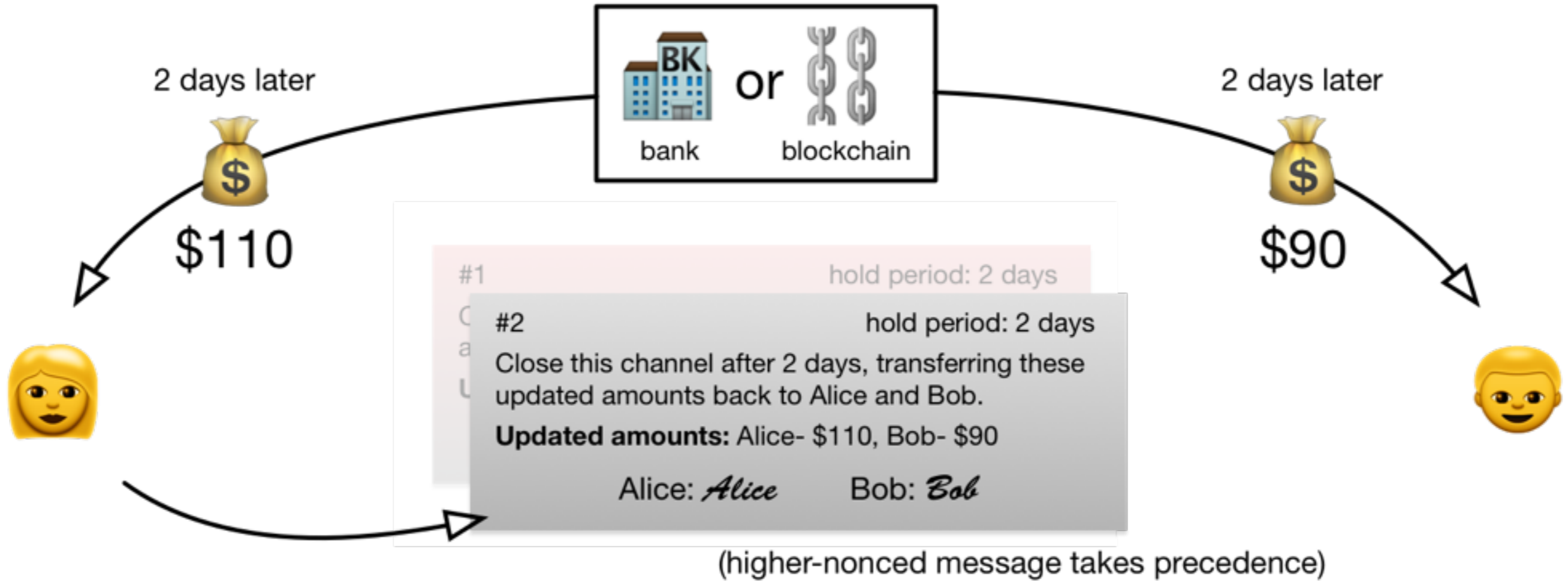

\$105

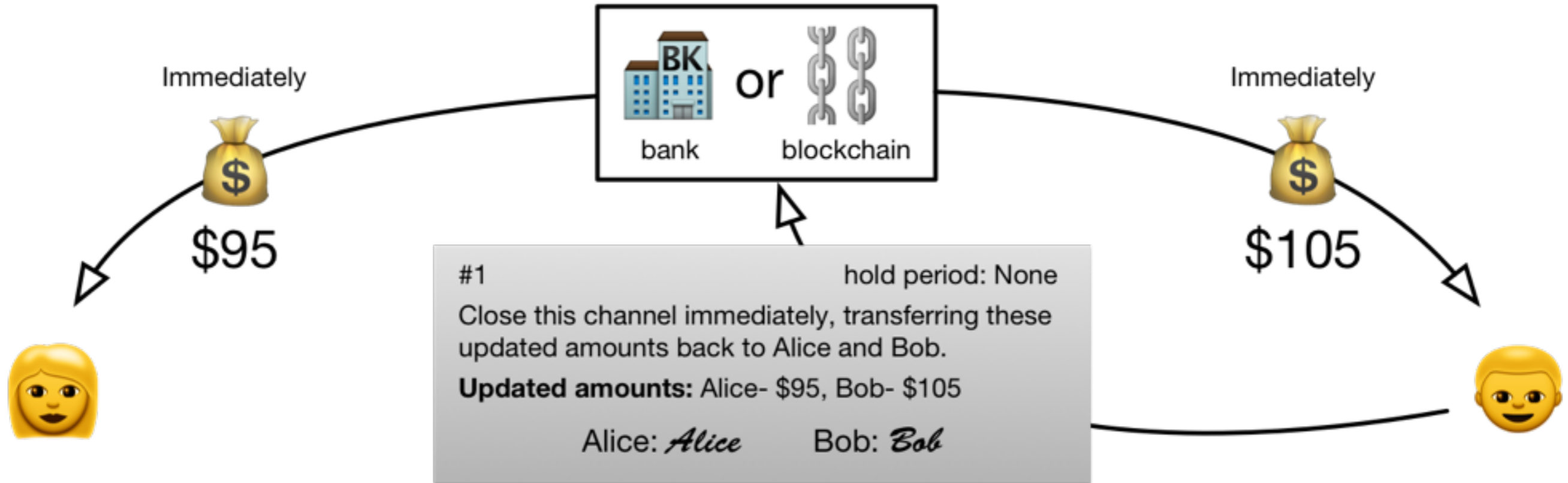
Close this channel, transferring these updated amounts back to Alice and Bob.
Updated amounts: Alice- \$95, Bob- \$105
Alice: *Alice* Bob: *Bob*



#1 hold period: 2 days
Close this channel after 2 days, transferring these updated amounts back to Alice and Bob.
Updated amounts: Alice- \$95, Bob- \$105
Alice: *Alice* Bob: *Bob*









Alice

#3 hold period: 2 days

If given the string that hashes to `xyz123`, close this channel after 2 days, transferring these updated amounts back to Alice and Bob.

Updated amounts: Alice- \$90, Bob- \$110

Alice: *Alice* Bob: *Bob*

This is a payment from Bob to Charlie for \$20, hashlocked with the string "secret", which hashes to "xyz123"



Bob

#89 hold period: 5 days

If given the string that hashes to `xyz123`, close this channel after 2 days, transferring these updated amounts back to Bob and Charlie.

Updated amounts: Bob- \$240, Charlie- \$70

Bob: *Bob* Charlie: *Charlie*

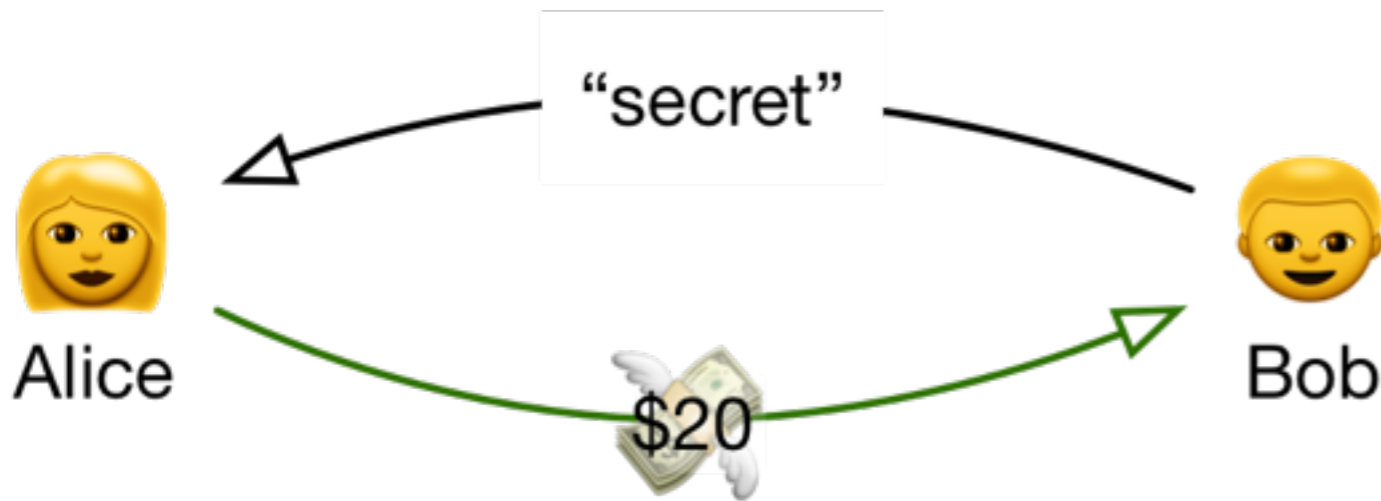
This is a payment from Bob to Charlie for \$20, hashlocked with the string "secret", which hashes to "xyz123"



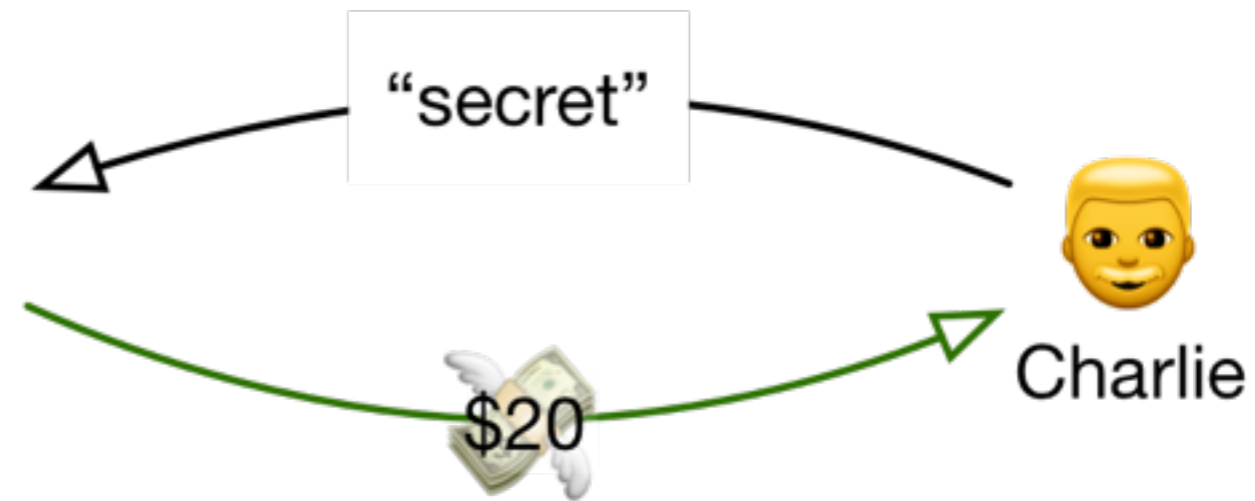
Charlie

“secret” hashes to “xyz123”, which was used to hashlock the 2 previous payments

Step 2: Now Bob has “secret”, allowing him to unlock the hashlocked payment from Alice to Bob.



Step 1: Charlie shows Bob “secret”, unlocking the hashlocked payment from Bob to Charlie.





\$149.22



Ð1,165,113



\$150.34



Alice



Bart



Conrad



Doris

secret

secret

secret



Read more:

<http://altheamesh.com/blog/universal-payment-channels/>