Komerka

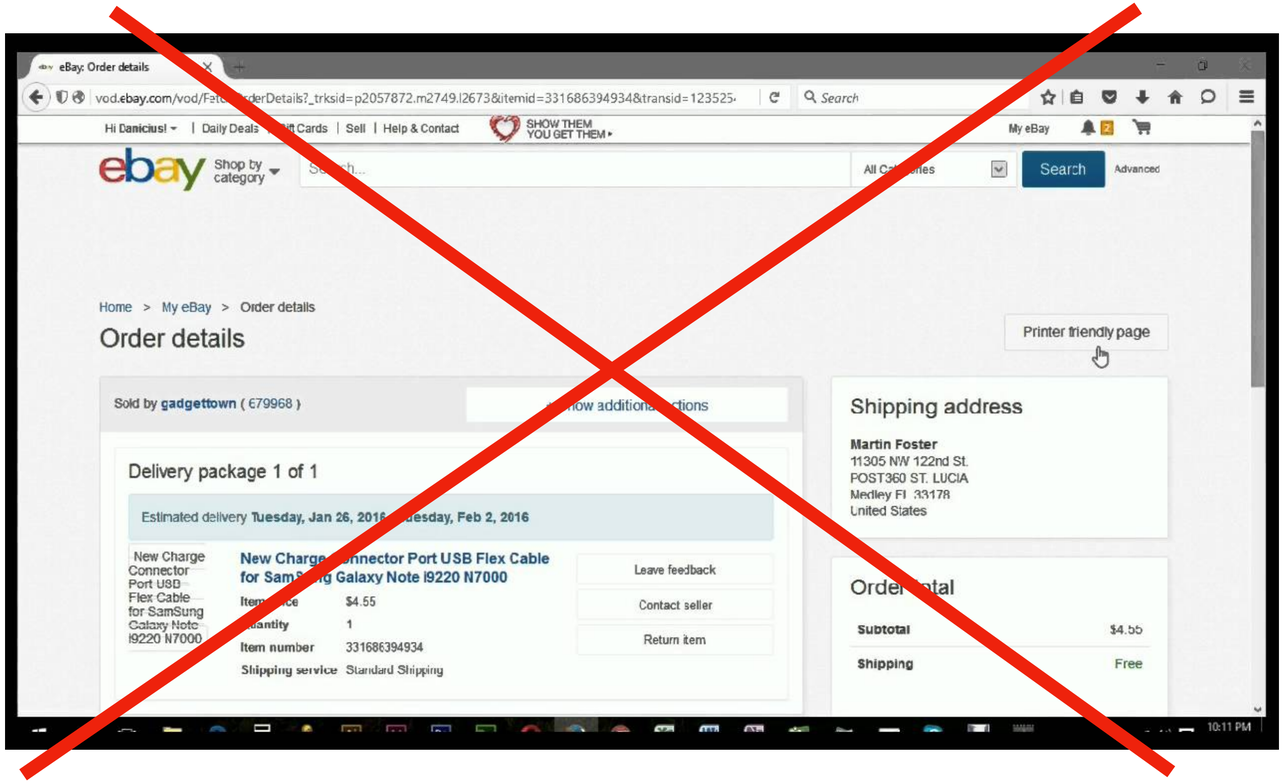
The Future of Commerce

An Ethereum based protocol for the creation of digital rights to physical goods

Digital rights to physical goods

Not Legal Rights

Not Digital Coordination

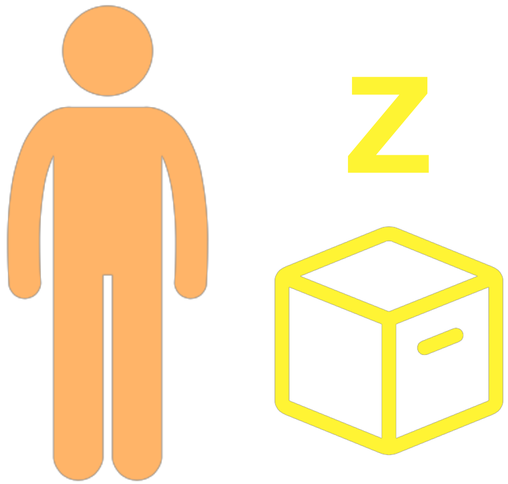


True digital rights to physical goods

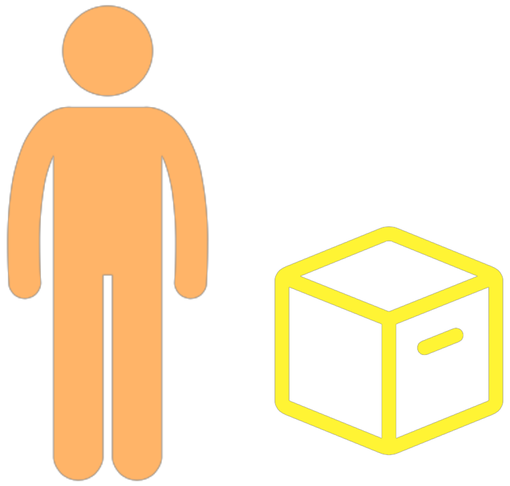
What would this mean?

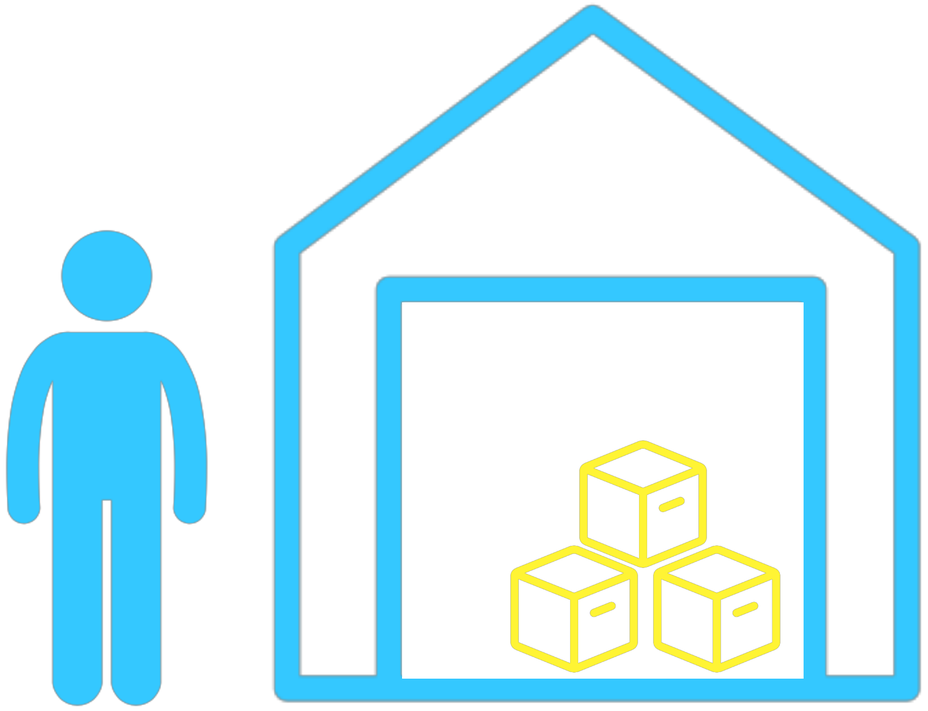
Would need to rely on digital incentives.

We can do this with digital value.

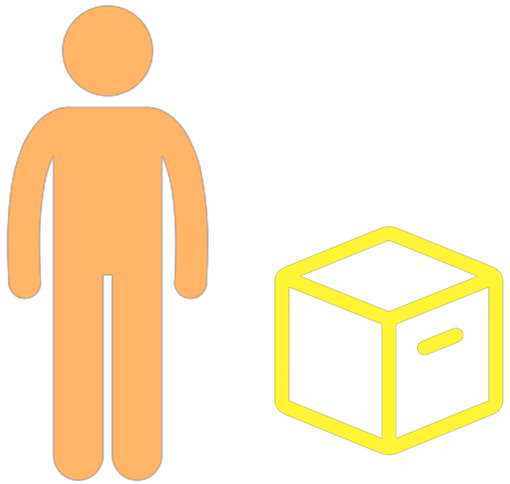


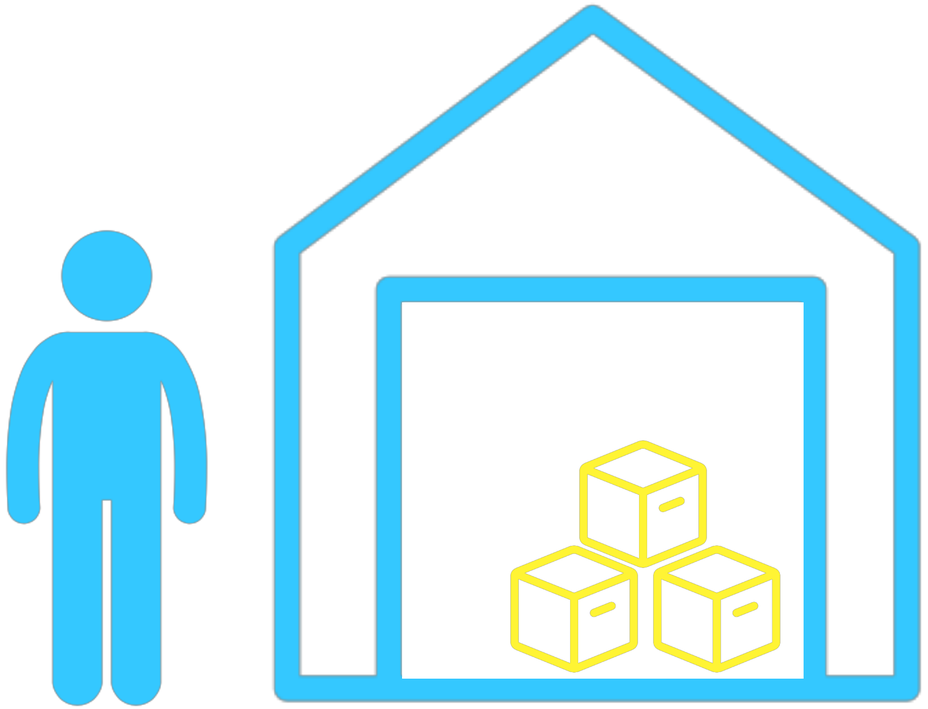
Jill has some physical good, Z, that she would like to sell. She wants a digital representation of her good, so that she is not limited to buyers physically near her.



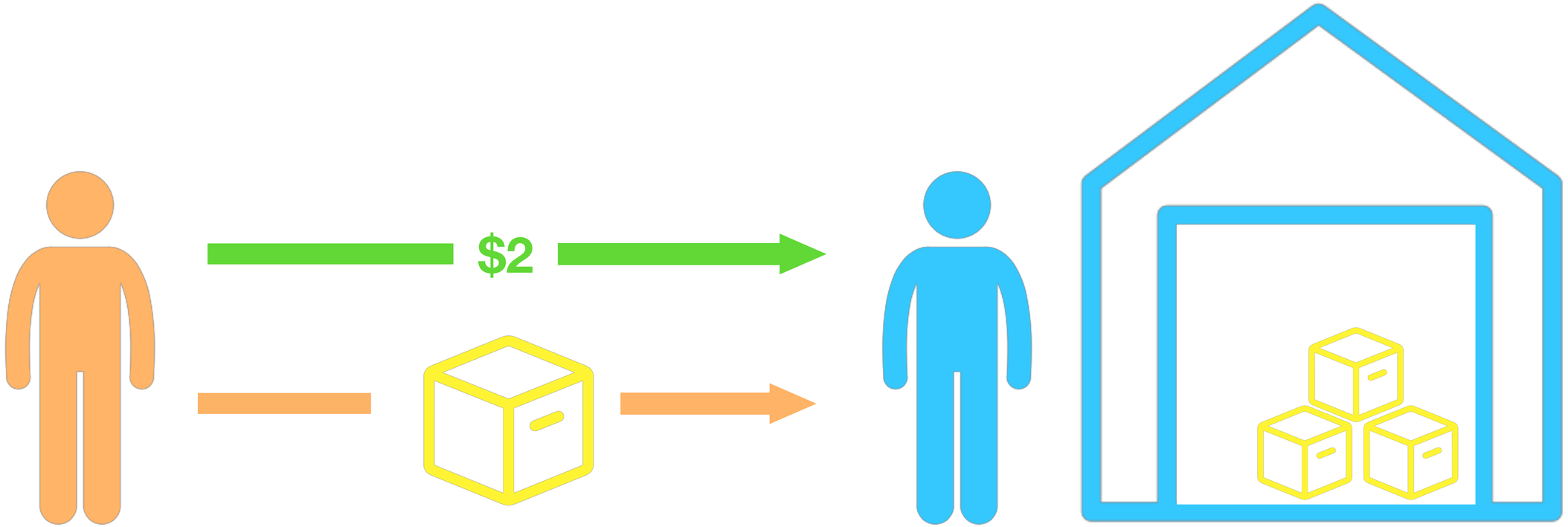


Bob is a verifier/custodian who specializes in Z good.





Bob agrees to take custody of Jill’s Z good and give her digital Z for a price of $2

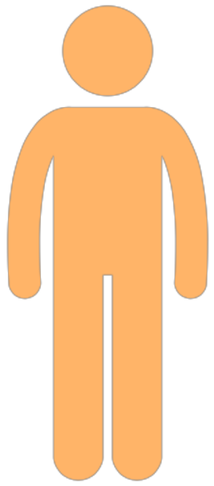


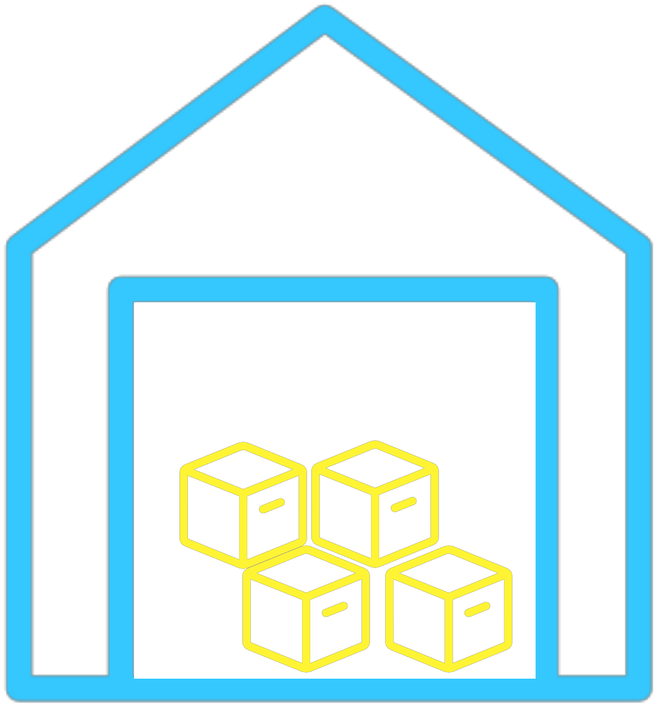
Jill agrees and gives Bob her Z and $2

Komerka DAO

Z good's specification

Minting = f(x)





In the Komerka DAO, there is a specification for Z good. The minting rules say that in order to create digital Z, approved minters must post collateral equal to the value of the digital Z they create, and the value of digital Z is set by its current trading price.

Komerka DAO

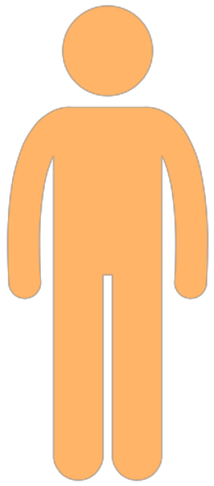
Z good's specification

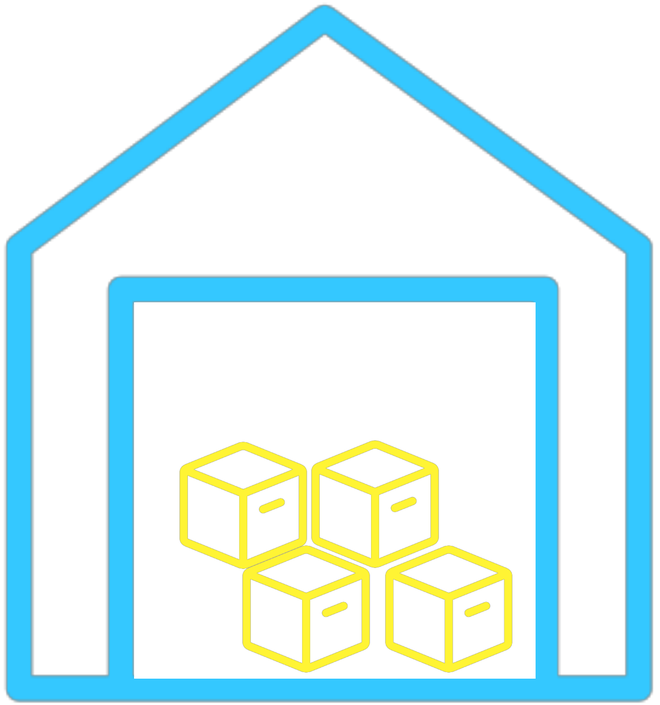
Minting = f(x)

Z good's state

100 DAI

Bob → ~~**200 DAI**~~ **100 DAI**





The current trading price of digital Z is $100. Bob uses DAI he already has in the Komerka DAO to collateralize new digital Z.

Komerka DAO

Z good's specification

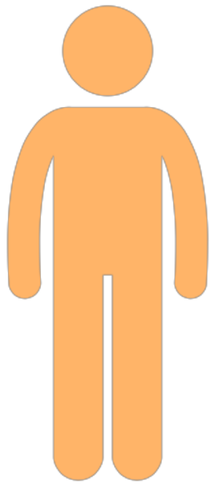
Minting = f(x)

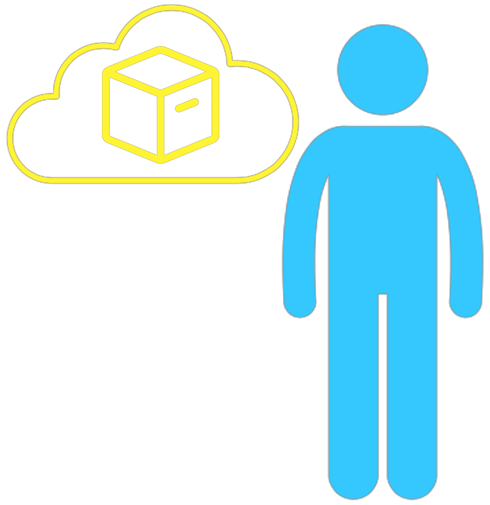
Z good's state

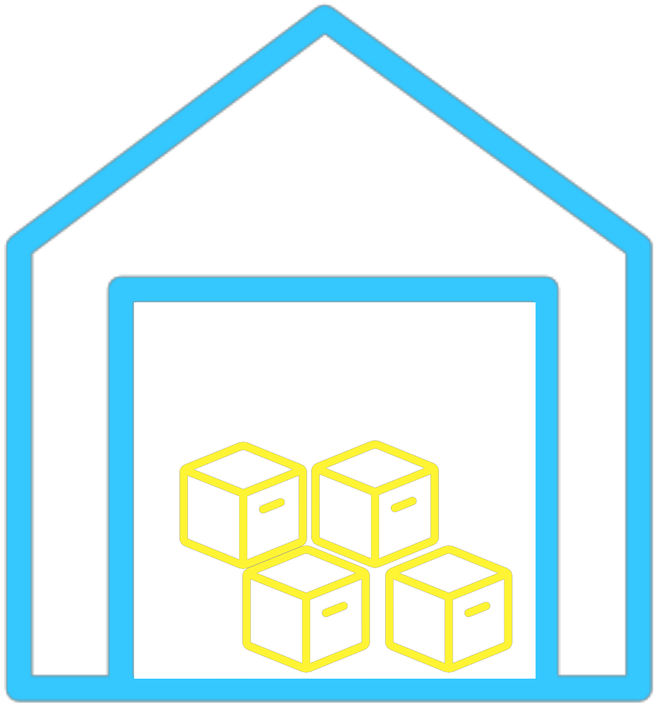
Bob ⟶ 1 Z Collateral

Bob ⟶ 1 Z Ownership

Bob ⟶ 100 DAI







Bob's minting call update's Z good's state in the Komerka DAO. The state notes that Bob's collateral is locked for one Z, indicating he should have one Z in his possession. The state also notes that Bob obtained one Z ownership.

Komerka DAO

Z good's specification

ownershipEx = f(x)

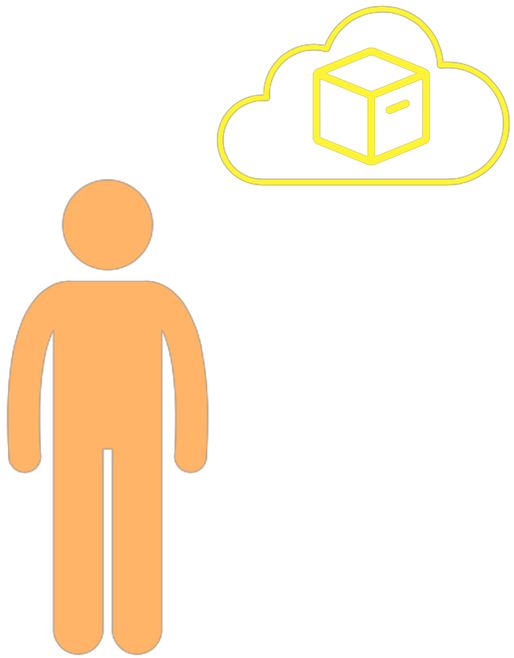
Z good's state

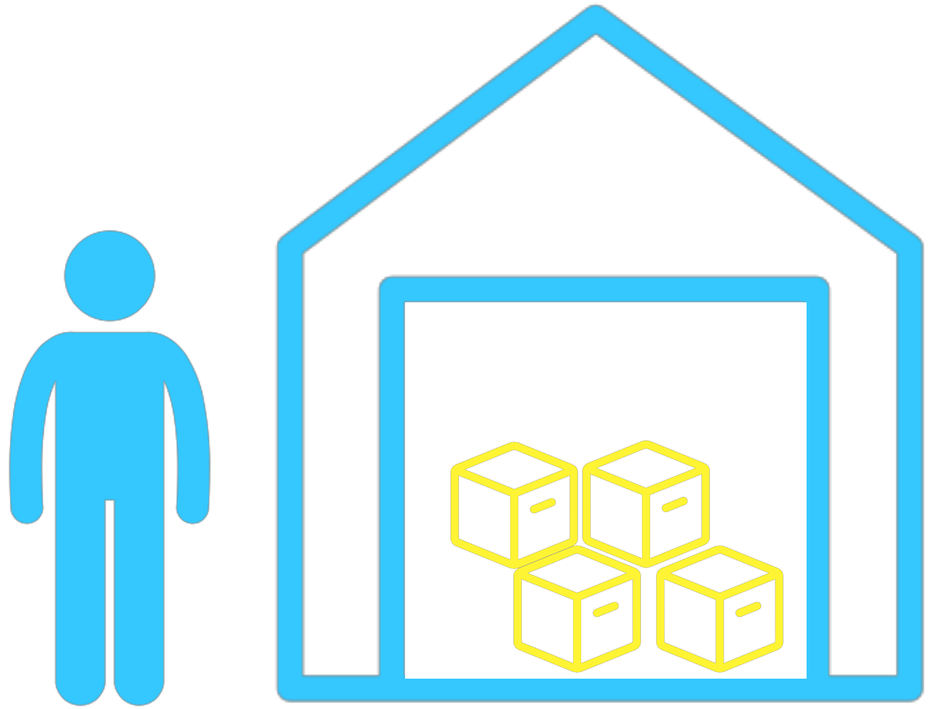
Bob → 1 Z Collateral

~~Bob → 1 Z Ownership~~

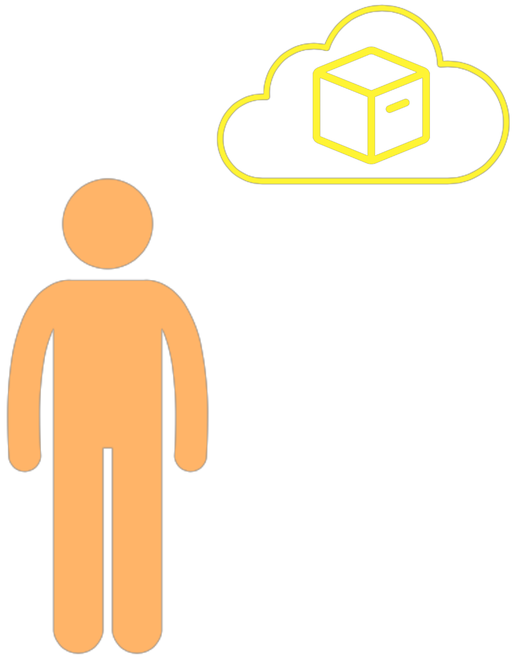
Jill → 1 Z Ownership

Bob → 100 DAI

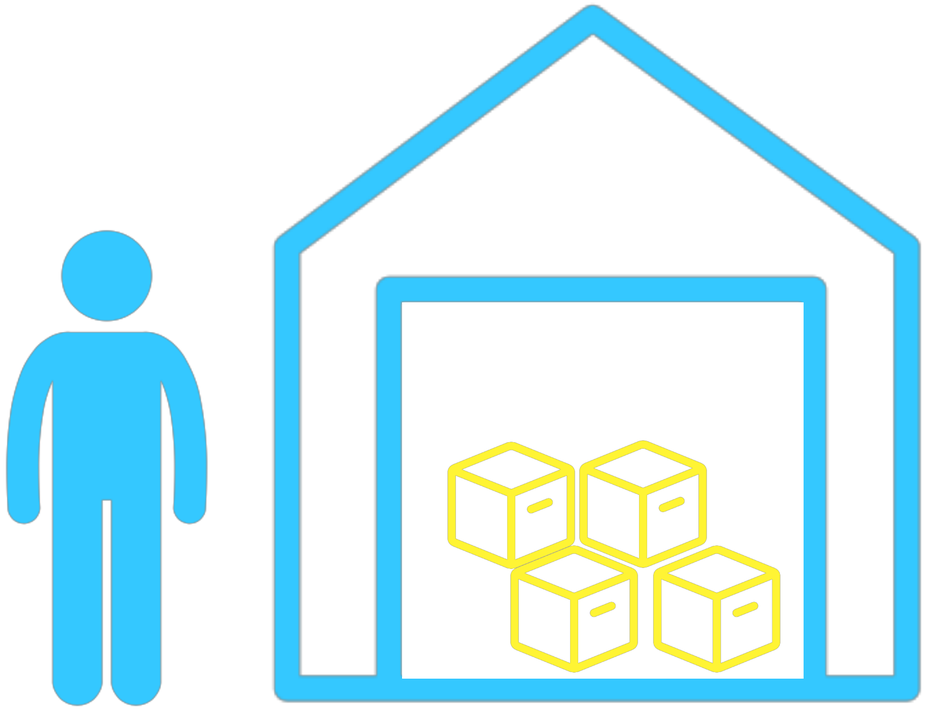




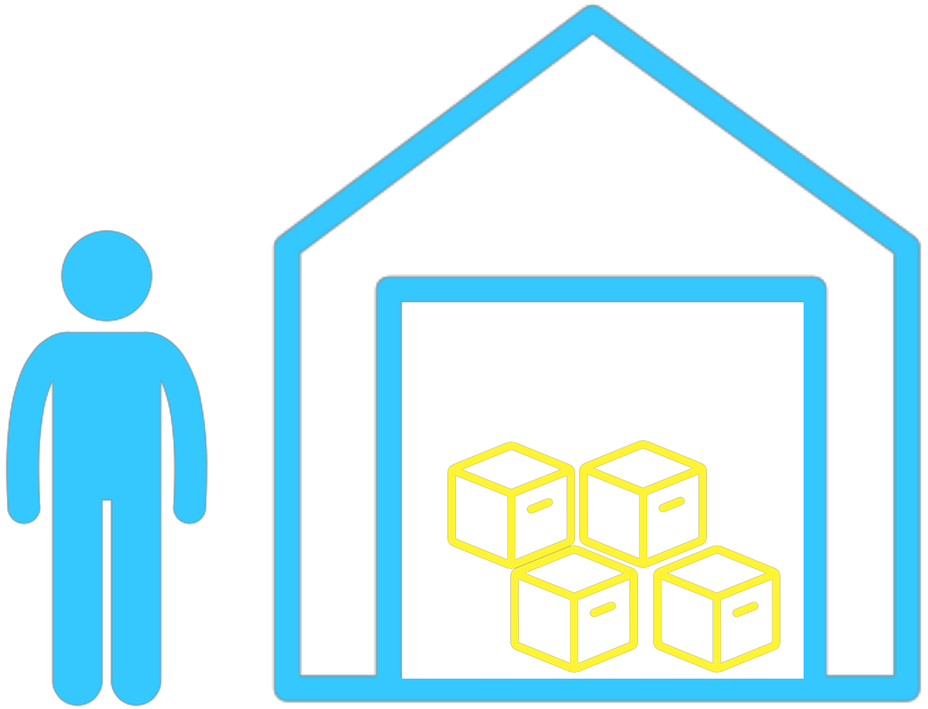
To honor his agreement with Jill, Bob transfers the Z ownership to Jill.



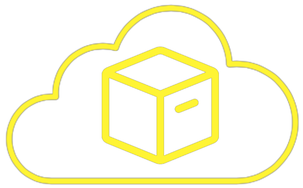
Now Jill has digital Z. She can use it for all kinds of things! She can trade it on exchange, use it as collateral for a loan, and more!

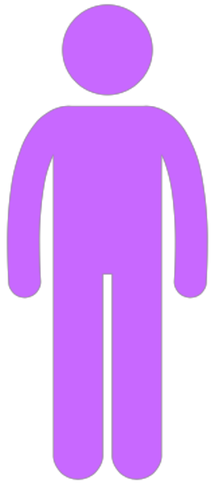


There are two ways Bob can unlock his collateral guarantee the digital Z.

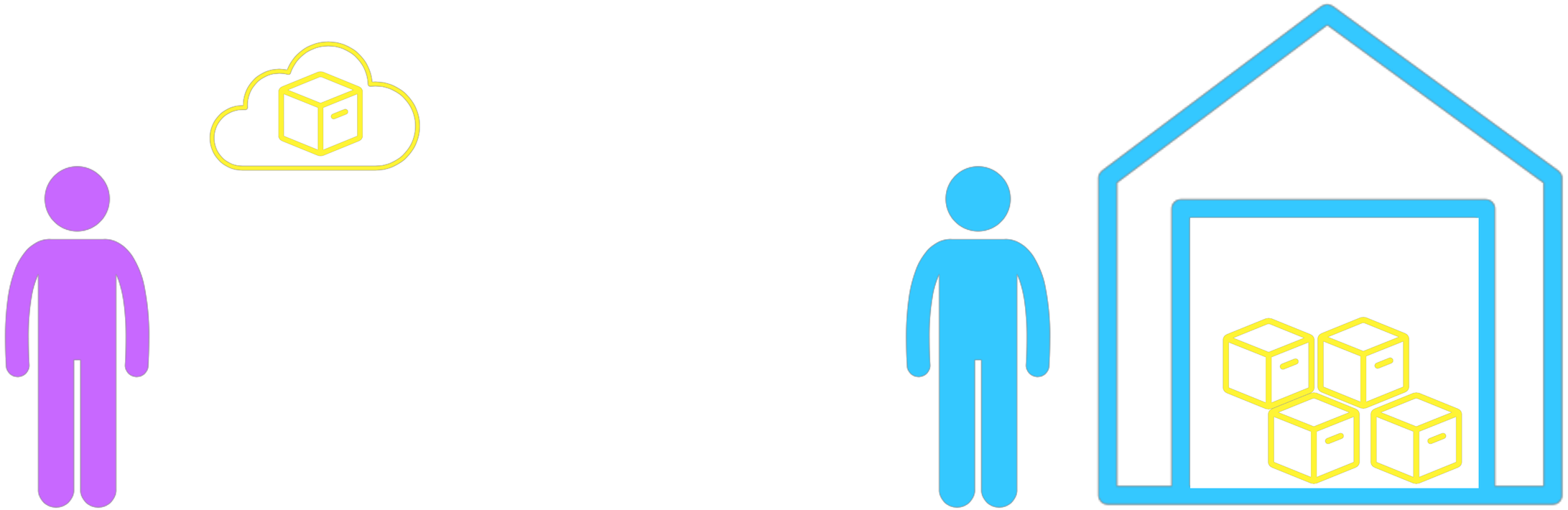


First, he could facilitate a redemption, meaning someone gives him digital Z in exchange for physical Z.





Let’s say John owns digital Z and wants physical Z.



Bob agrees to give him physical Z in exchange for his digital Z plus a $1 fee.

Komerka DAO

Z good's specification

ownershipEx = f(x)

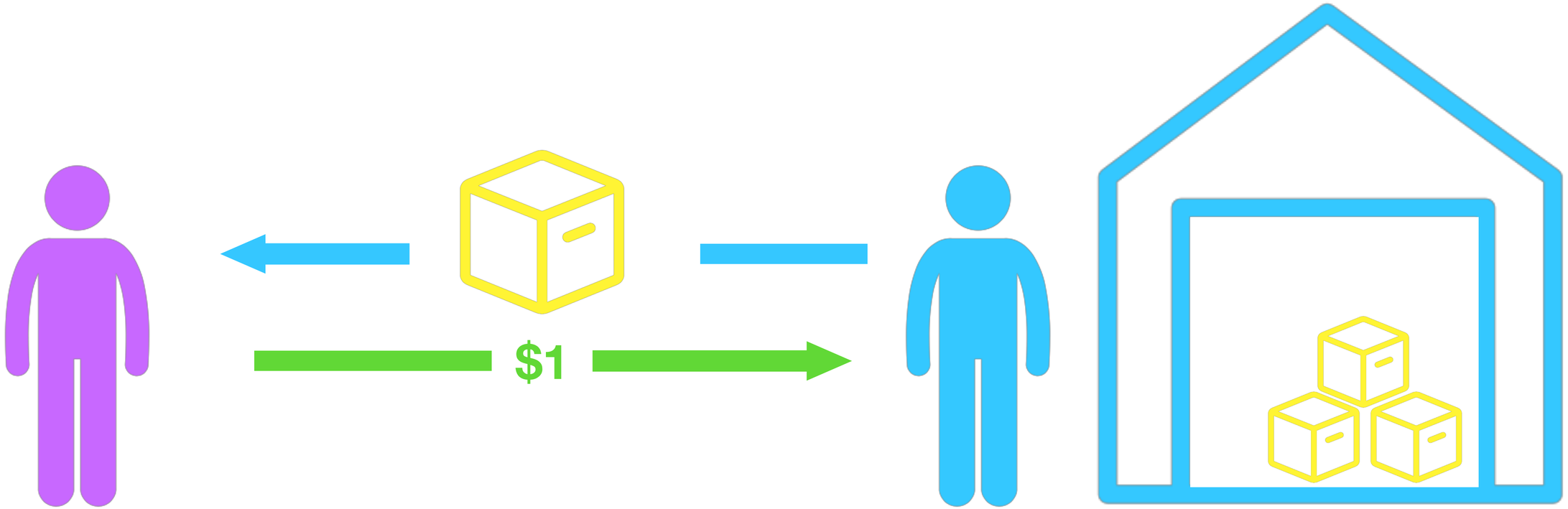
Z good's state

Bob → 1 Z Collateral

~~John → 1 Z Ownership~~

Bob → 1 Z Ownership

Bob → 100 DAI



They make the exchange.

Komerka DAO

Z good's specification

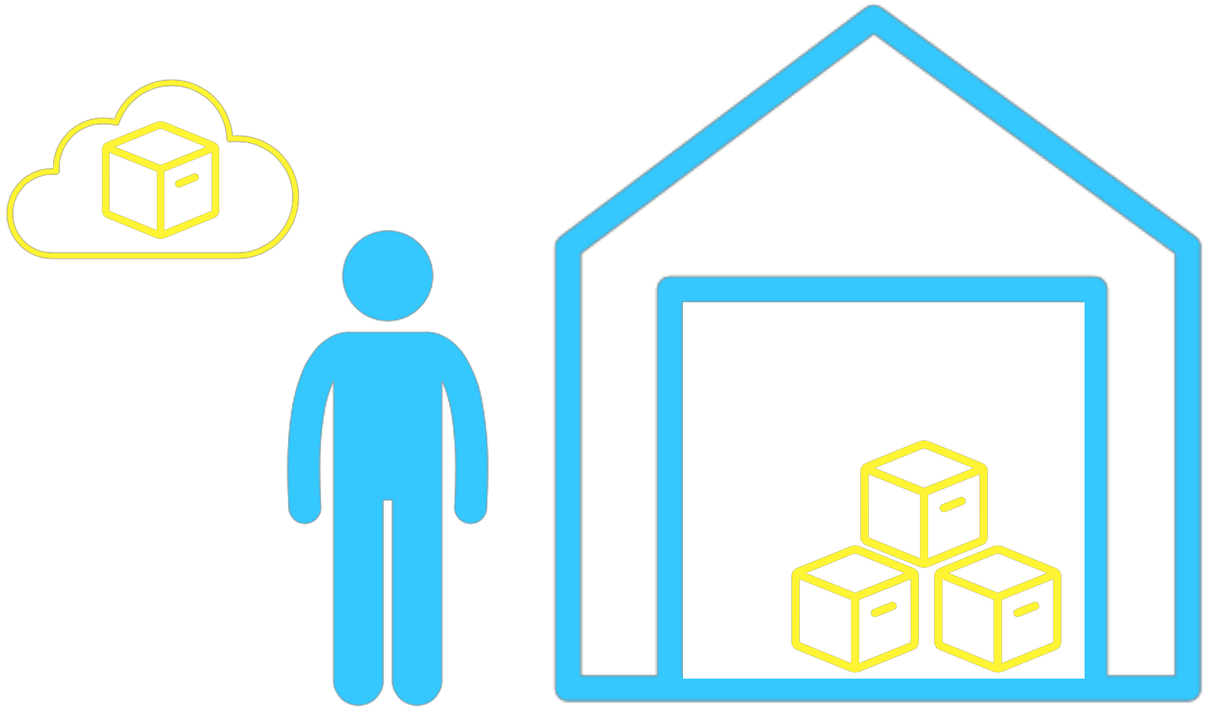
Burn = f(x)

Z good's state

Bob → 1 Z Collateral

Bob → 1 Z Ownership

Bob → 100 DAI



The specification for Z good states that anyone with locked collateral can release it by burning a Z ownership.

Komerka DAO

Z good's specification

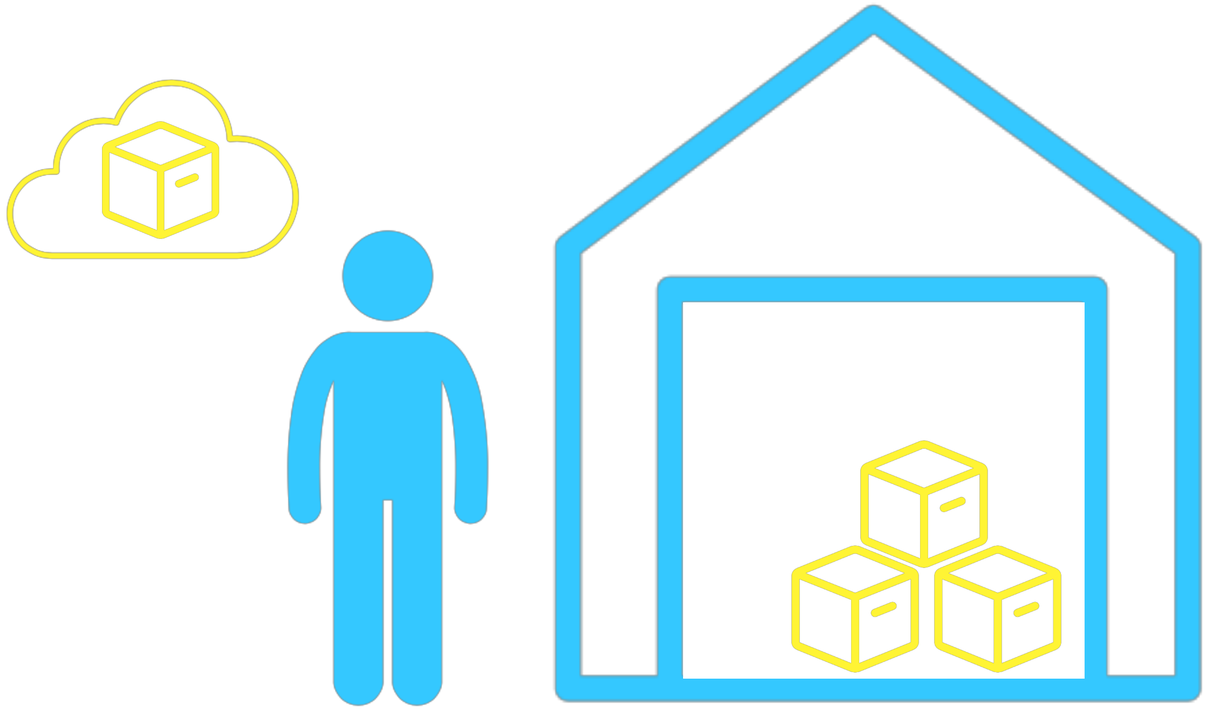
Burn = f(x)

Z good's state

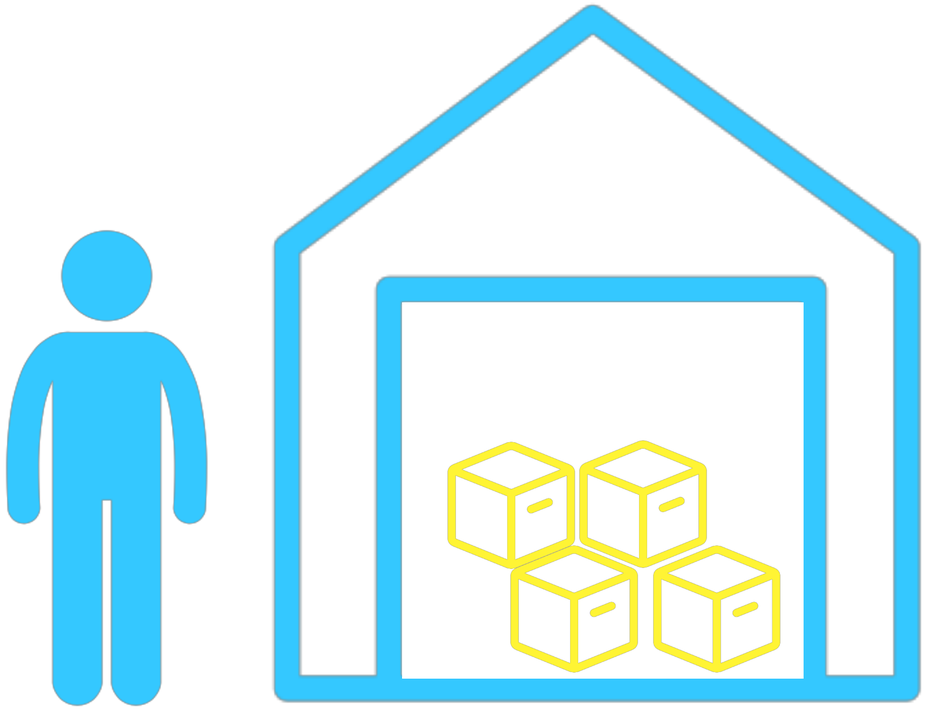
~~Bob ⟶ 1 Z Collateral~~

~~Bob ⟶ 1 Z Ownership~~

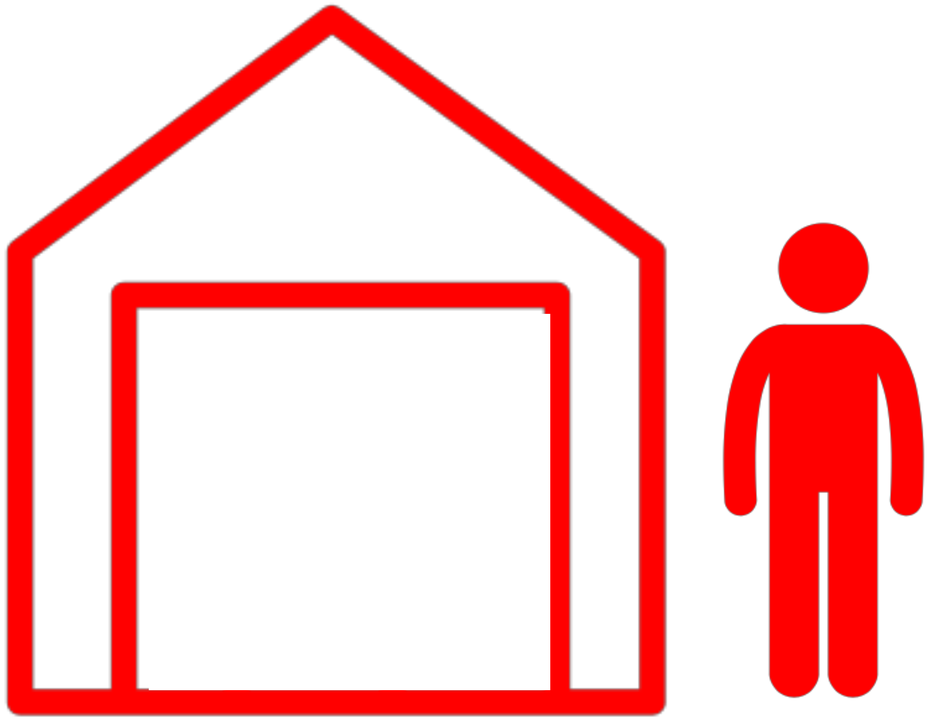
100 DAI ⟶ **Bob ⟶ 100 DAI**

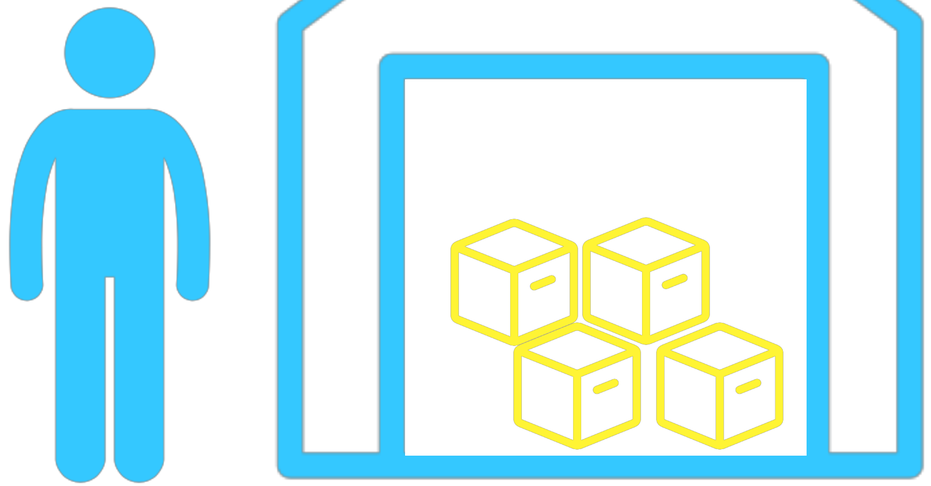


Bob burns the ownership he got from John, and releases his collateral.



The other way Bob can release his collateral is to sell his collateral guarantee, along with the physical Z, to another custodian.





Another Z custodian, Jane, offers Bob $1 for his physical Z, in additional to buying his collateral guarantee, which is worth 100 DAI.

Komerka DAO

Z good's specification

collateralEx = f(x)

~~Z good's state~~

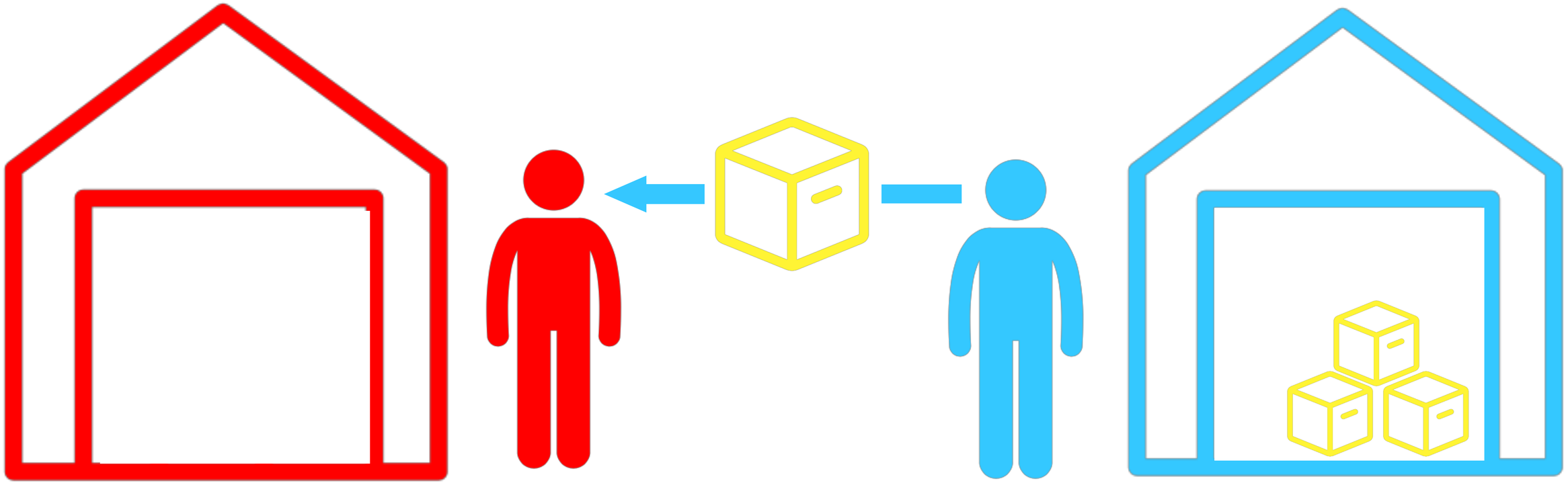
~~Bob → 1 Z Collateral~~

Jane → 1 Z Collateral

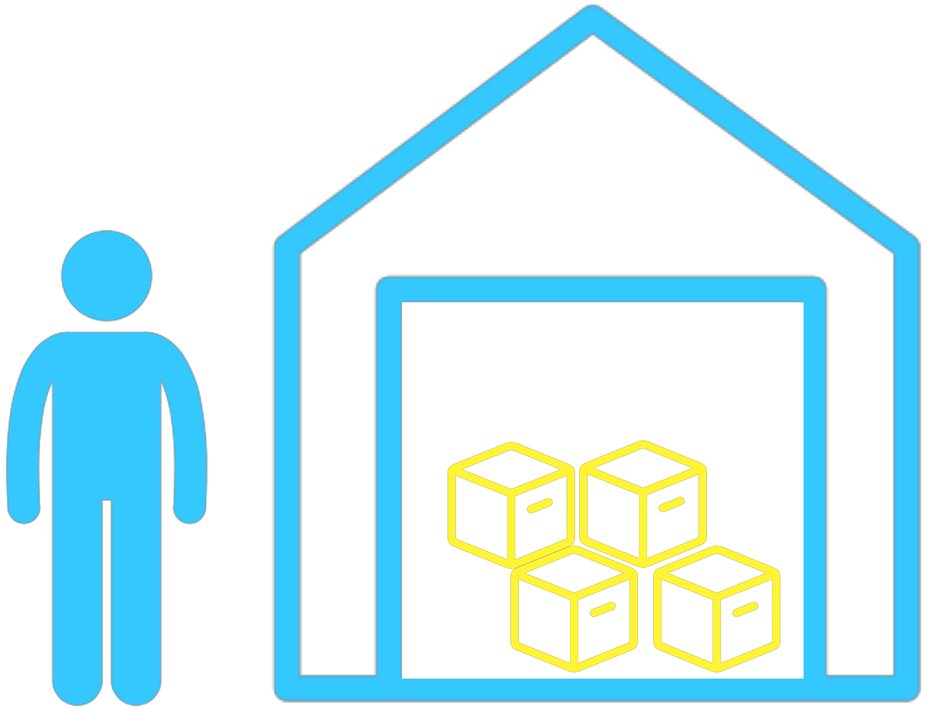
100 DAI

Bob → ~~100 DAI~~ 200 DAI

Jane → ~~200 DAI~~ 100 DAI



Bob agrees, and they make the exchange. The sale of the collateral guarantee is facilitate through the Komerka DAO



If Bob mishandles some physical Z, no one will ever redeem for it and no other custodian will take it, meaning his collateral will be locked forever. This incentive allows people to trade digital Z with confidence that the custodian will keep the physical Z properly.

Z good’s specification is just one possible implementation. Komerka DAO would allow users to create new assets with arbitrary rules. The value add of the DAO is that assets share a real world network of custodians, who are essential to all.