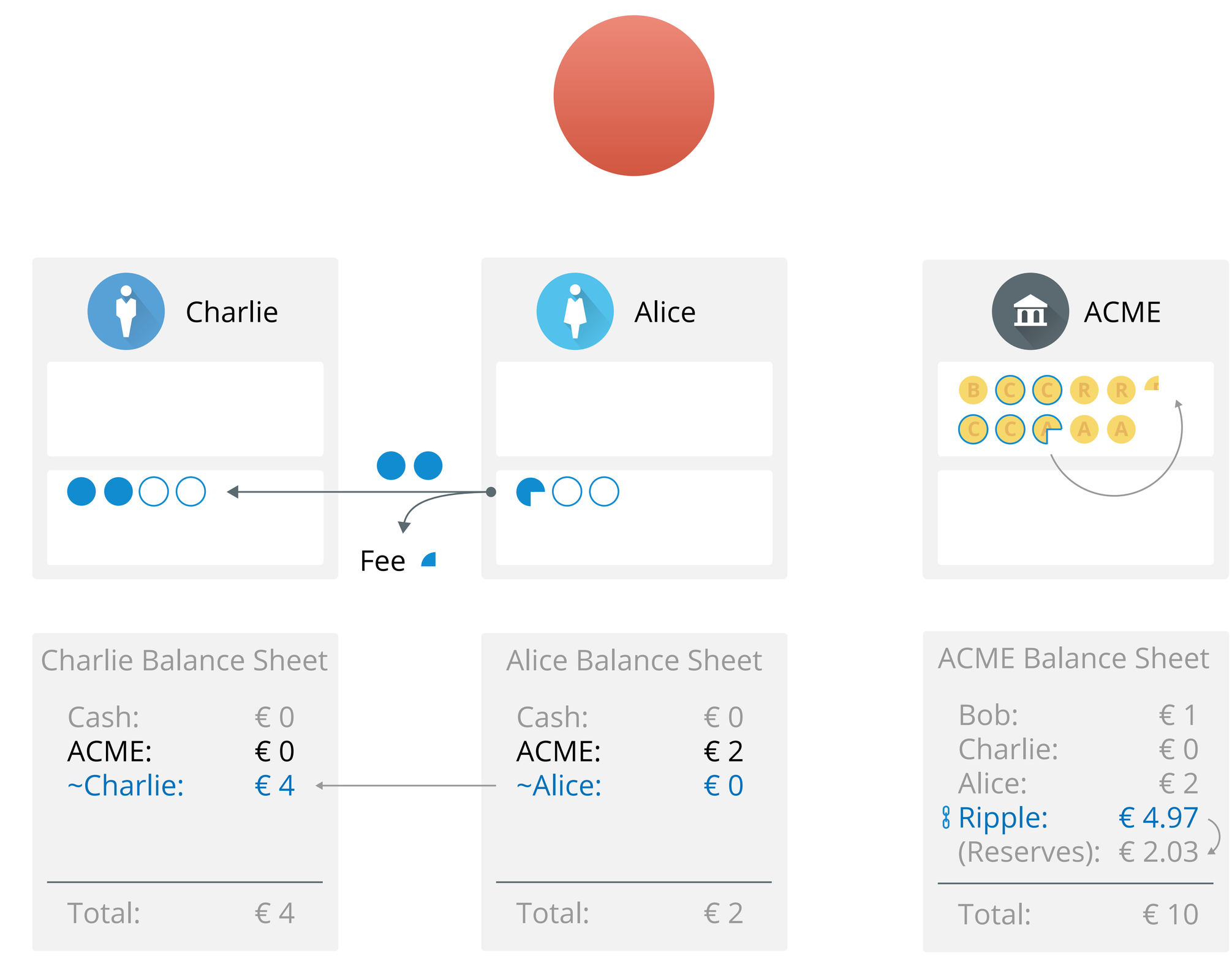
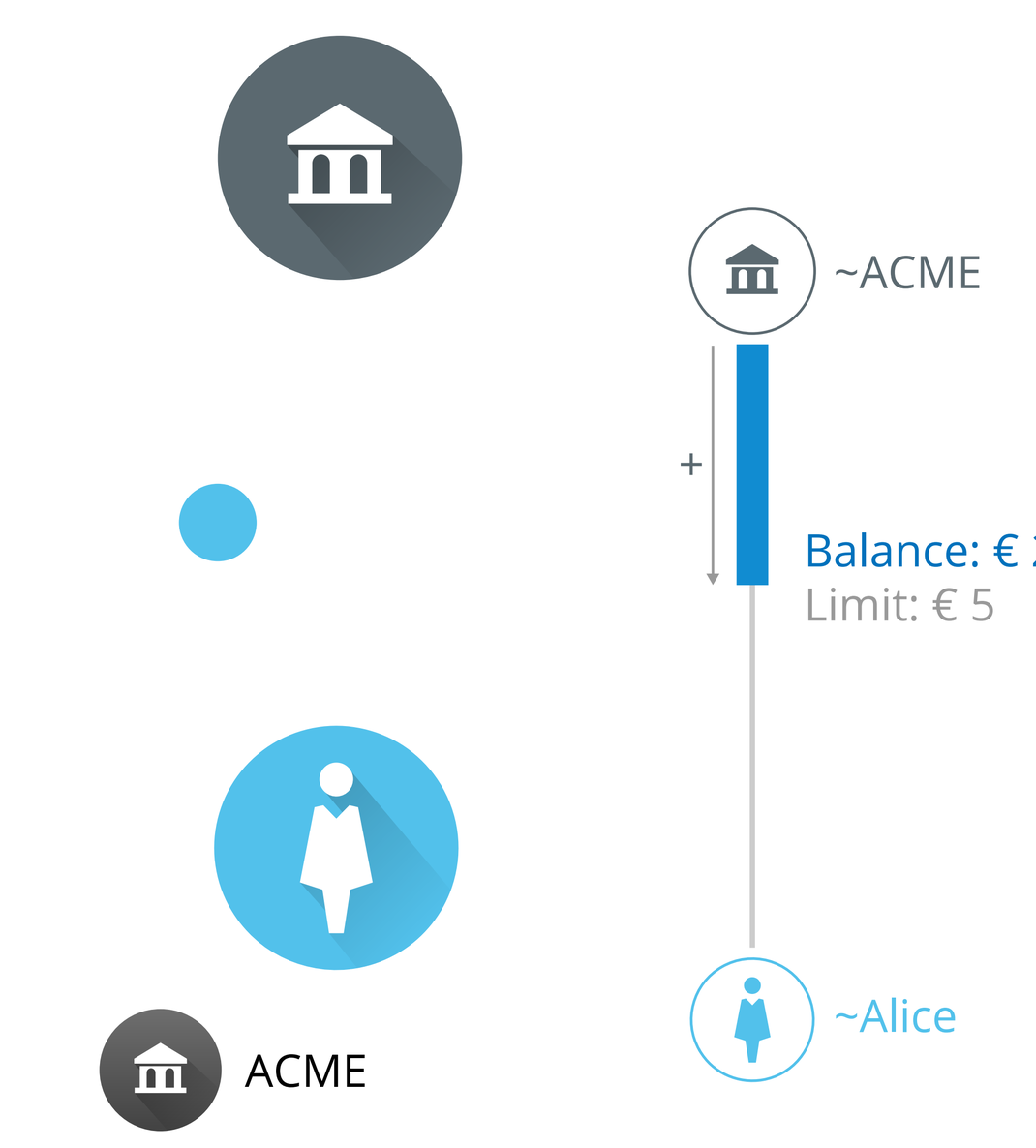
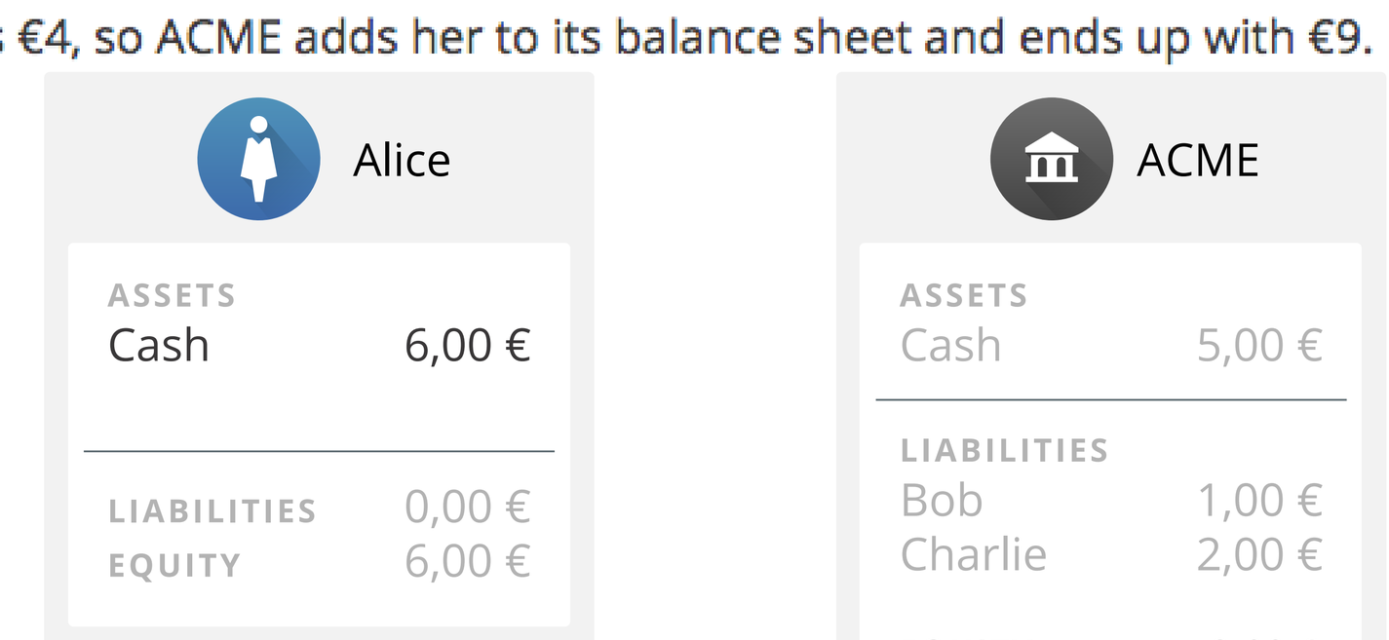


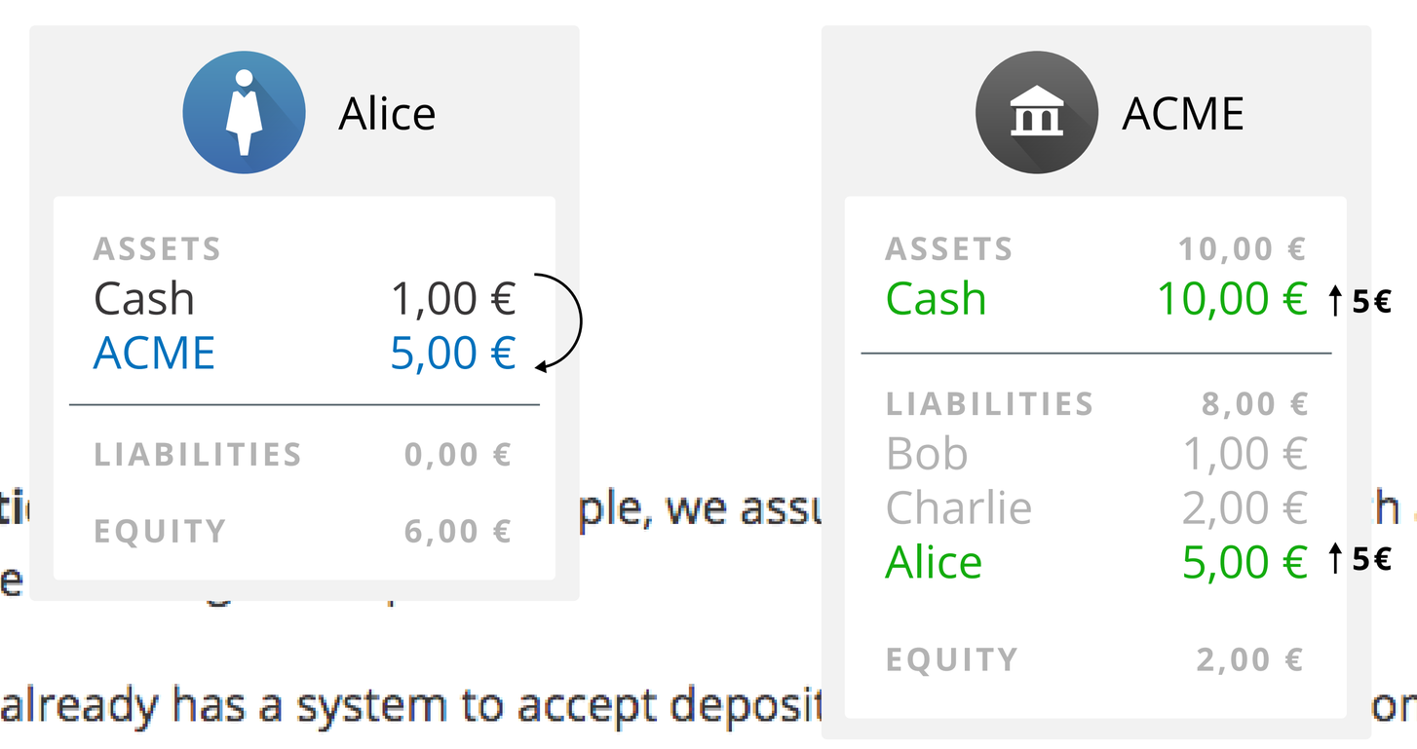


Prior to Ripple Integration

Our example exchange, ACME, already accepts withdrawals and deposits from users using some existing system, and uses an internal accounting system to track how much balance each user has with the exchange. Such a system can be modeled simply with a balance sheet and tracking how much currency each user has on hand.

In the following diagram, ACME Exchange starts with €5 on hand, including €1 that belongs to Bob, €2 that belongs to Charlie, and an additional €2 of reserves. Alice deposits €4, so ACME adds her to its balance sheet and ends up with €9.



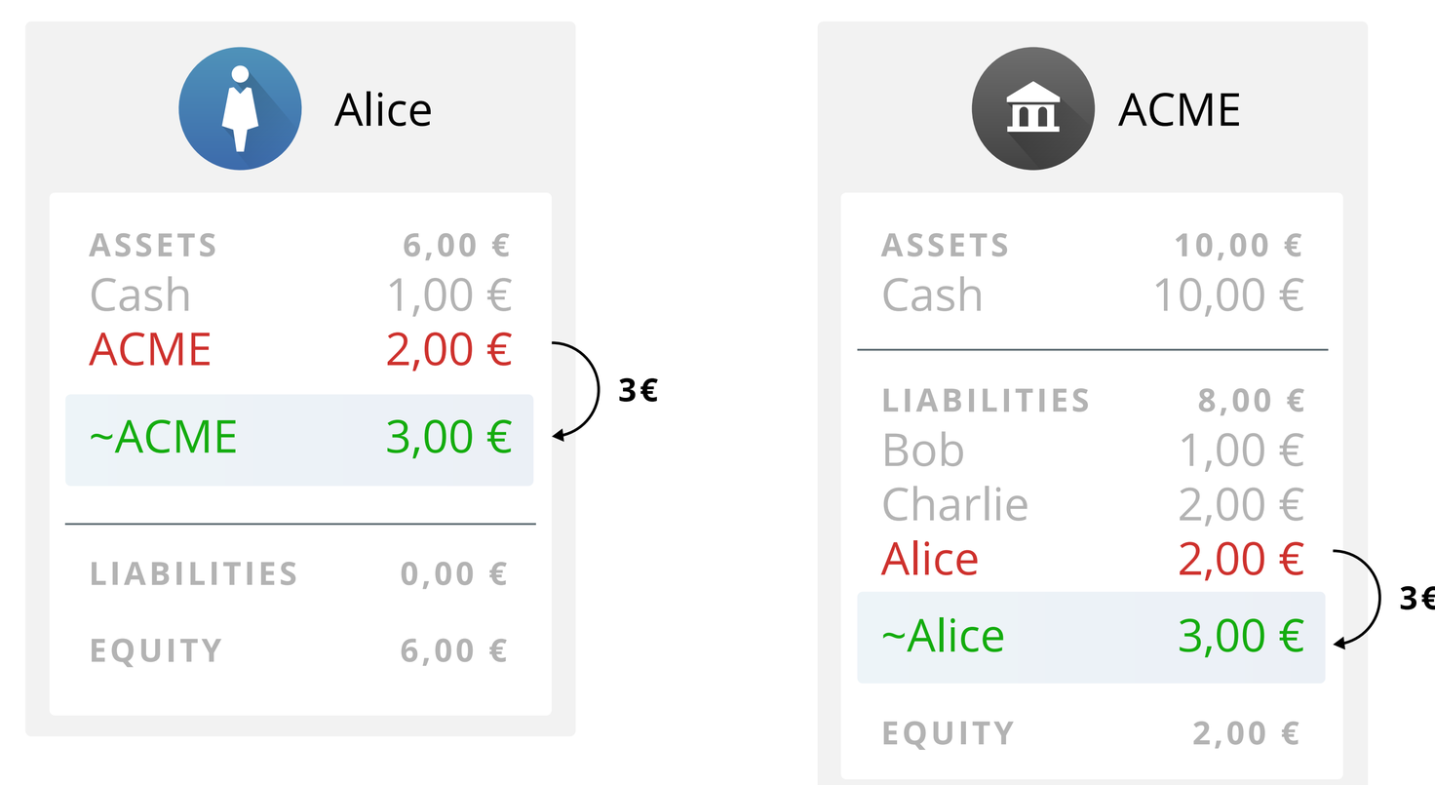


Assumpti... ple, we assu... h as ACME meets the ...

- ACME already has a system to accept deposit... ome outside payment source.
- ACME waits for deposits to clear before crediting them internally.
- ACME always keeps enough funds on-hand to pay withdrawals on demand, subject to their terms and conditions.
  - ACME can set fees, minimum withdrawals, and delay times for deposits and withdrawals as their business model demands.

An example of a deposit flow:

1. Alice asks to deposit €2 of her ACME balance into Ripple.
2. In its internal accounting, ACME debits Alice's balance €2 and credits the Ripple-backed balance by €2.
3. ACME submits a Ripple transaction, sending €2 to Alice's Ripple address. The €2 is marked in Ripple as being "issued" by ACME (2 EUR@ACME).



Requirements for Sending to Ripple

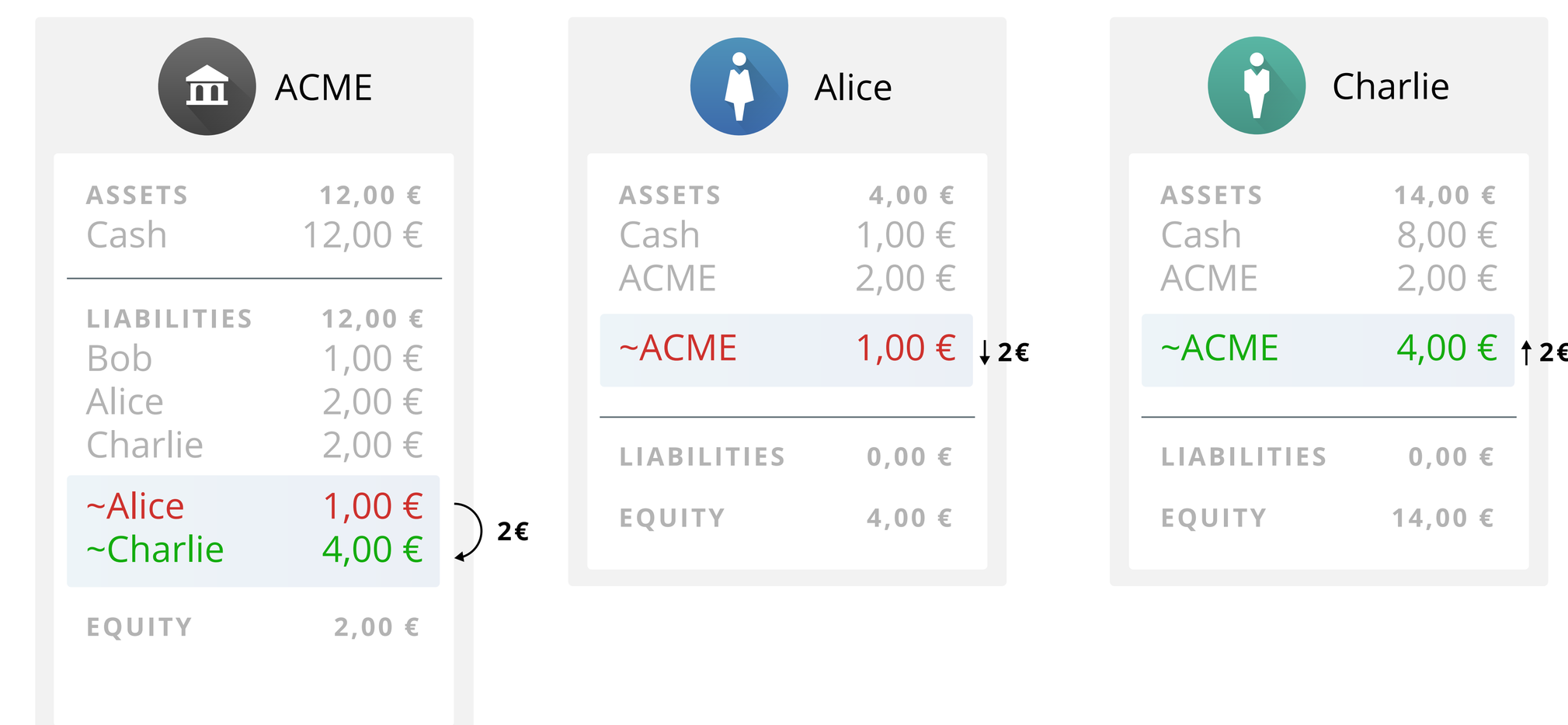
There are several prerequisites that ACME must meet in order for this to happen:

- ACME modifies its core accounting system to track money that is backing funds issued on the Ripple Network. This could be as simple as adding a record for Ripple.
  - Optionally, a gateway can take additional steps to separate normal user funds from funds backing the gateway's Ripple issuances. For example, a cryptocurrency exchange can create a separate wallet to hold the funds allocated to Ripple. This provides publicly-verifiable proof to customers that the gateway is solvent.

Exchanging EUR@ACME for other currencies within Ripple requires market makers who are willing to exchange other Ripple issuances for EUR@ACME as well as other currencies or issuers, who create orders (called "offers" in the Ripple ledger) to exchange currency. The cost of exchanging EUR@ACME for another currency depends on the quantity and quality of orders.

To facilitate exchanging currency, ACME may decide to become its own market maker. For various reasons, we recommend using a separate Ripple account for trading.

The following diagram depicts a simple Ripple payment sending 2EUR@ACME from Alice to Charlie. Note that ACME's balance sheet and holdings do not change:



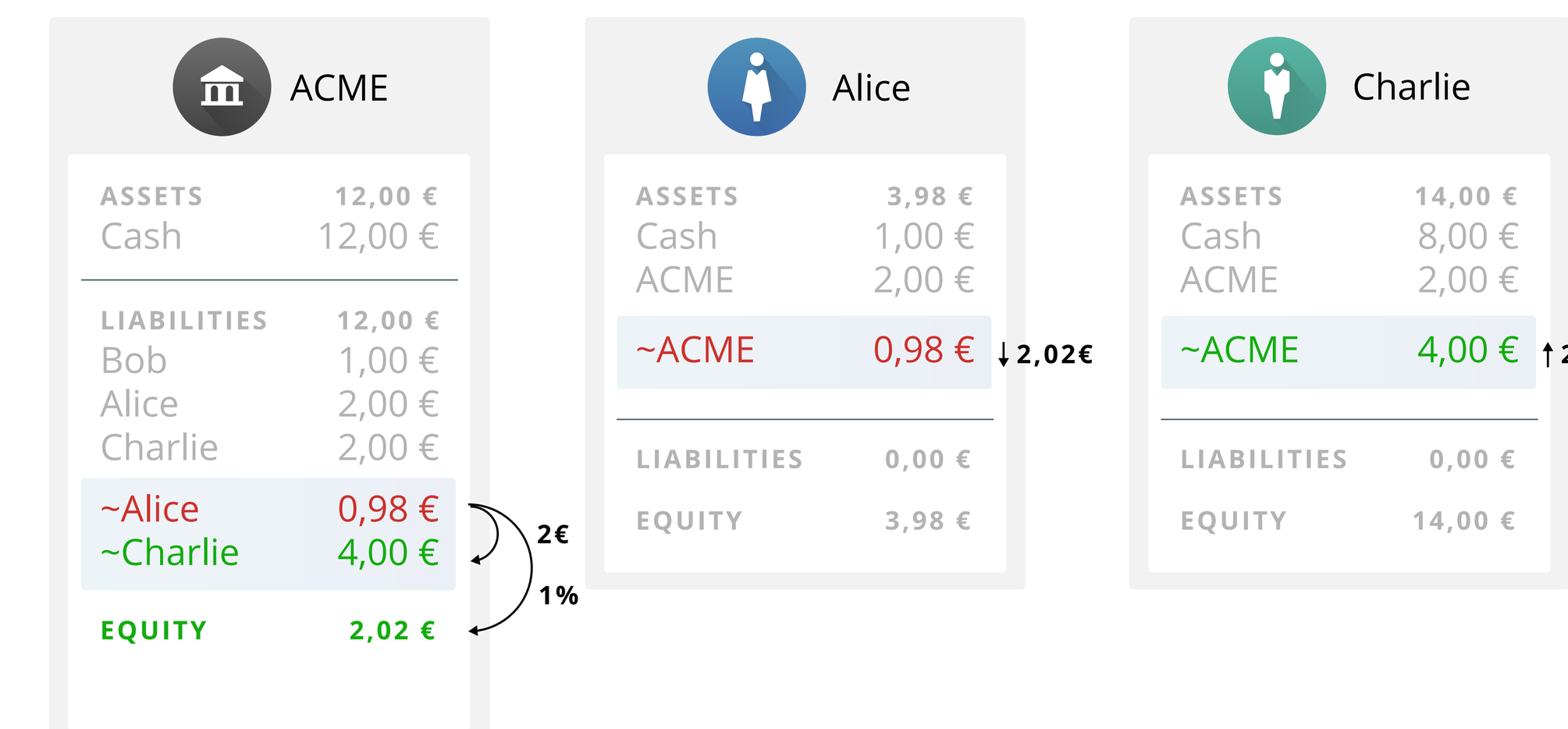
Freezes

Ripple provides the ability to freeze assets issued by the gateway in Ripple as a means of complying with regulatory requirements:

- Gateways can freeze individual account issuances, in case a user account shows suspicious activity or violates a gateway's terms of use.

For example, if ACME sets the trasfer_rate of its cold wallet to 1.005, that indicates a transfer fee of 0.5% for ACME issuances. In order for Bob to receive 2 EUR@ACME, Charlie must send 2.01 EUR@ACME. After the transaction, ACME's outstanding obligations in Ripple have decreased by €0.01, which means that it is no longer obliged to hold that amount in the account backing its Ripple issuances.

The following diagram shows a Ripple payment of 3EUR@ACME from Alice to Charlie with a transfer fee of 1%:



The following is an example of a Ripple-REST request to set the TransferRate for a fee of 0.5%.

Request:

```
POST https://api.ripple.com/v1/accounts/rf1BiGeXwwQoi8Z2ueFYTEXSwuJYfV2Jpn/settings?validated=true

{
```