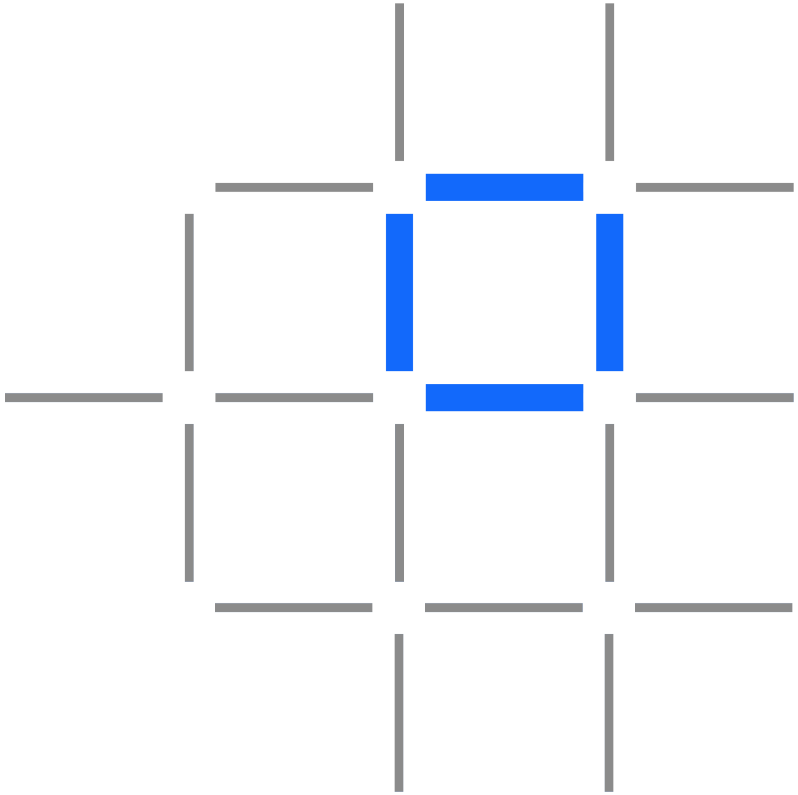
Lab 1

Asset Exchange

IBM **Blockchain**



Blockchain education series

V4.0, 23 August 2017

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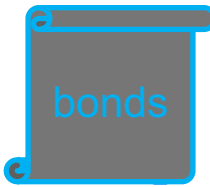
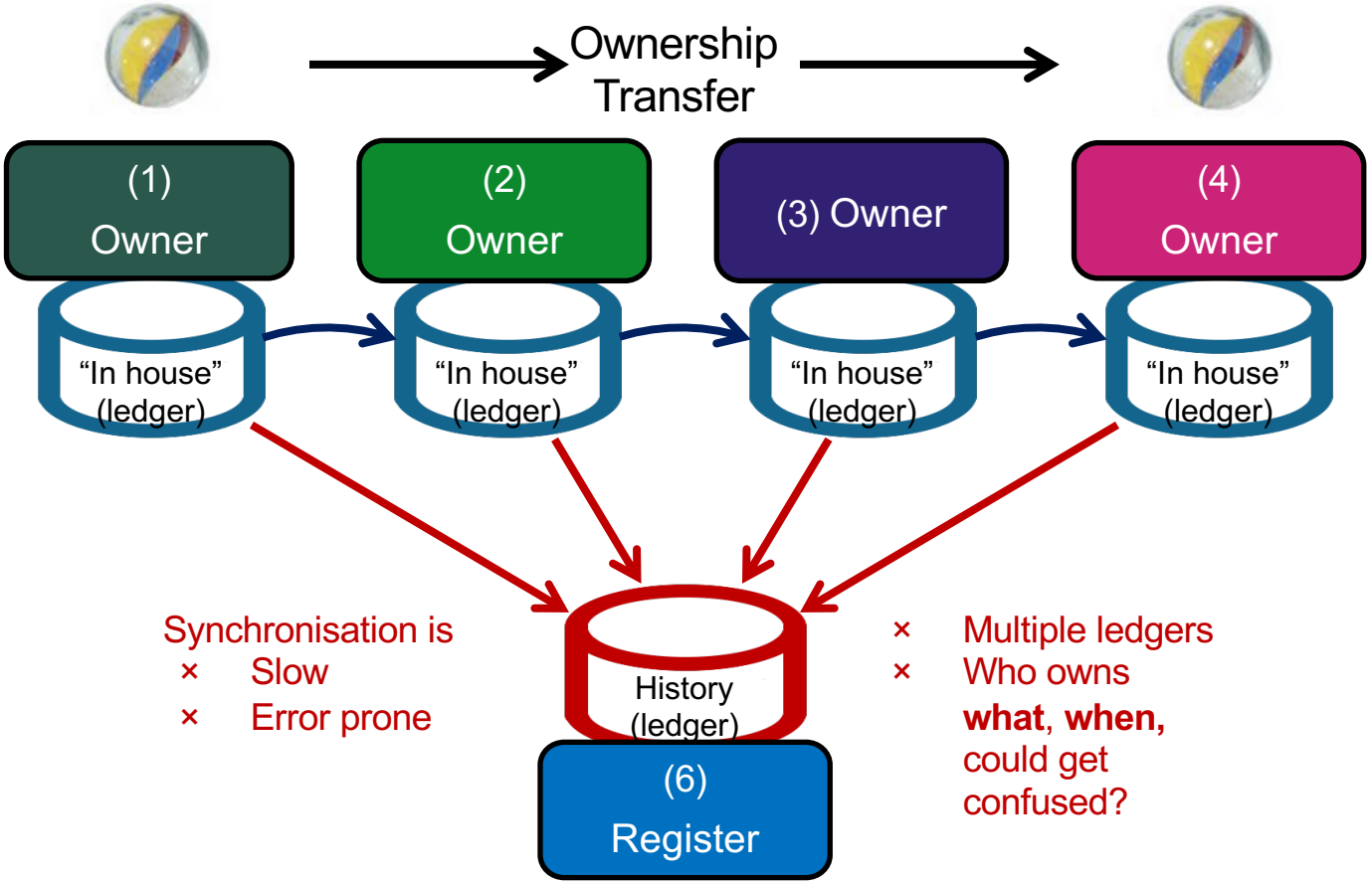
Asset Transfer Scenario

We will be transferring Marbles

(…but it could be anything)



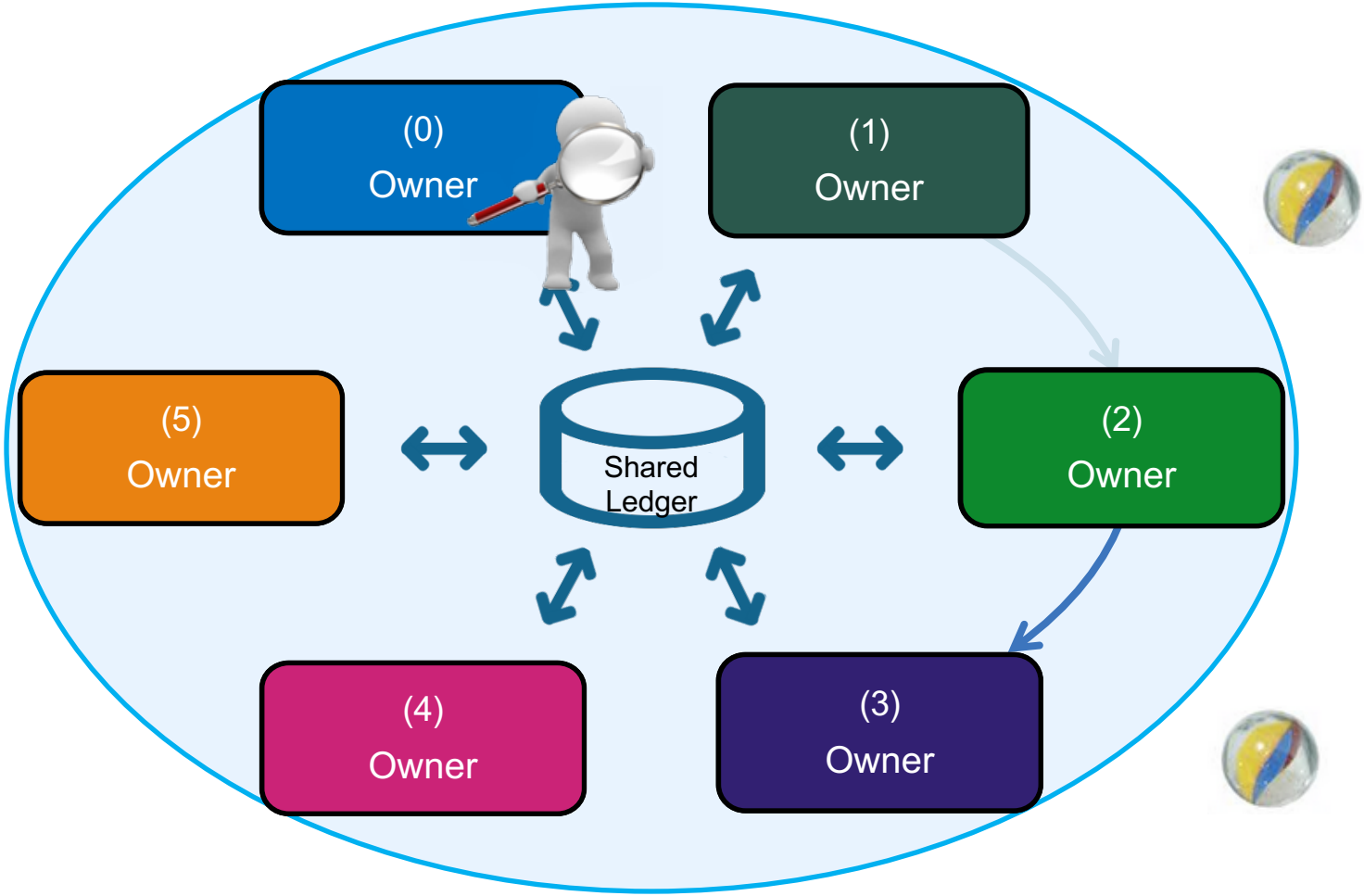
How do participants typically work today?



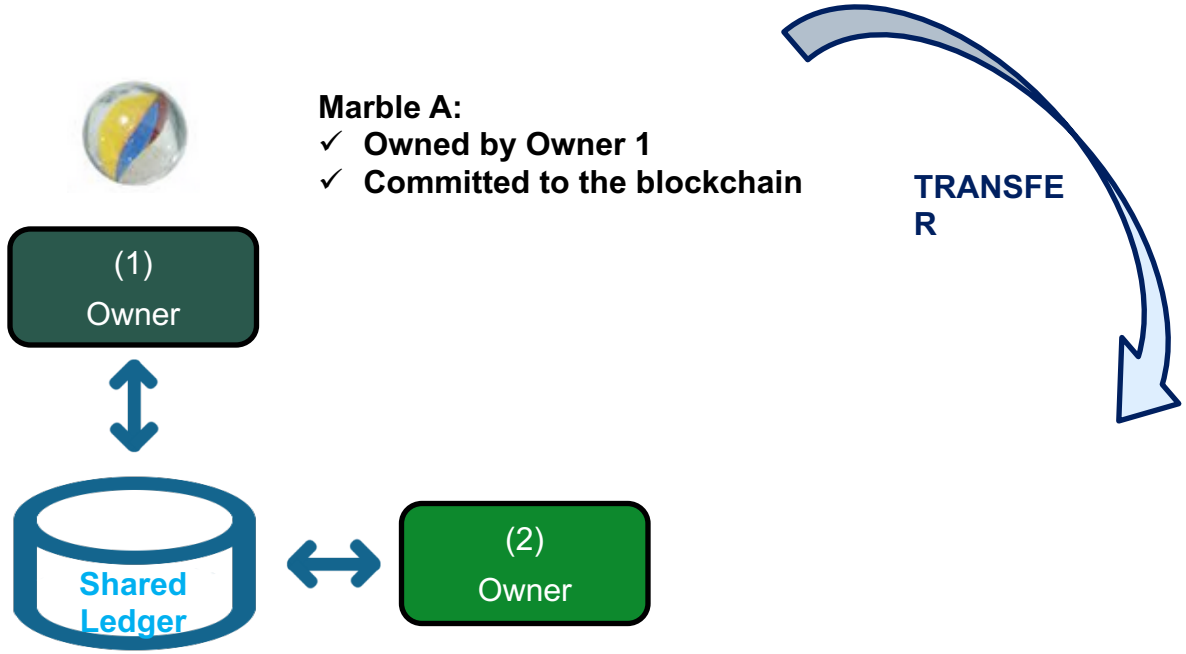
Synchronisation is
- × Slow
- × Error prone

- × Multiple ledgers
- × Who owns **what**, **when,** could get confused?

How could participants work with blockchain?



Modelling a Transfer using blockchain technology (example: Owner 1 > Owner 2)



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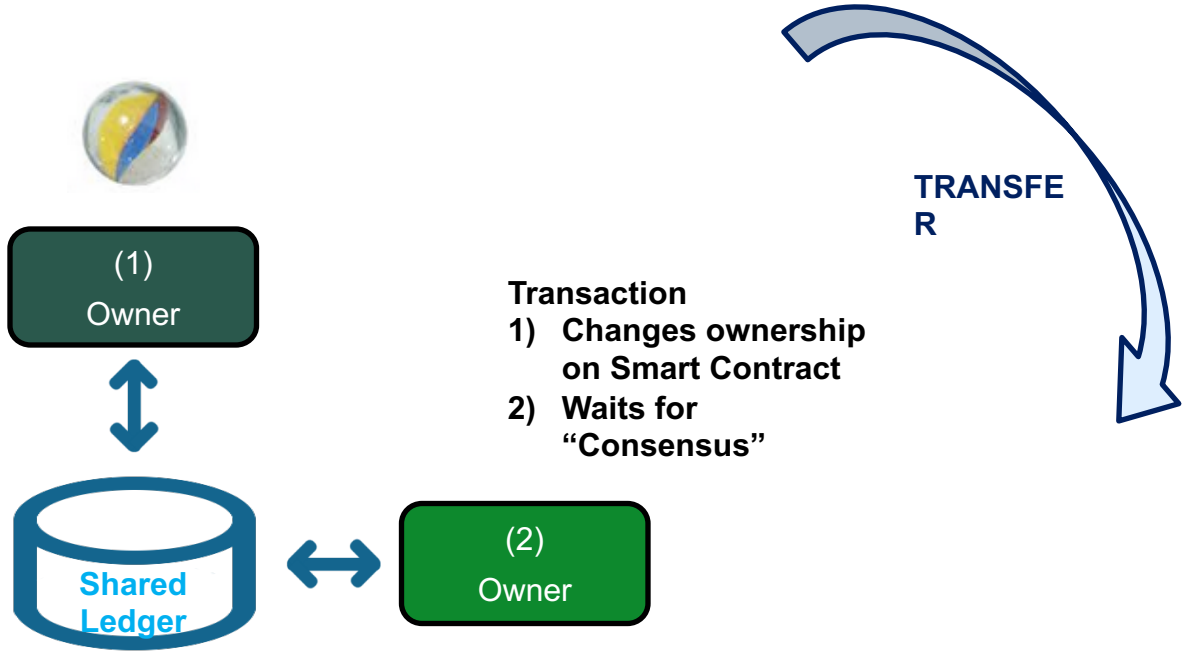

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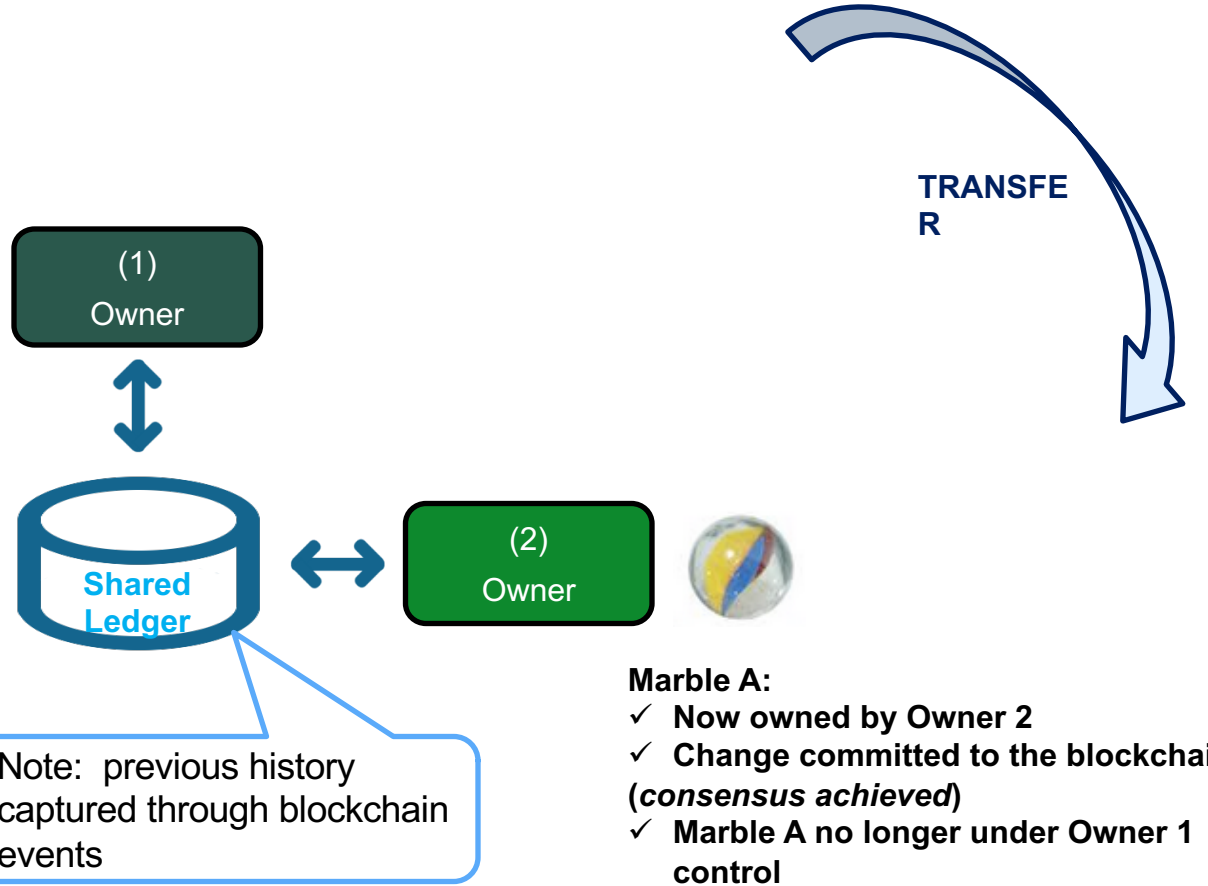
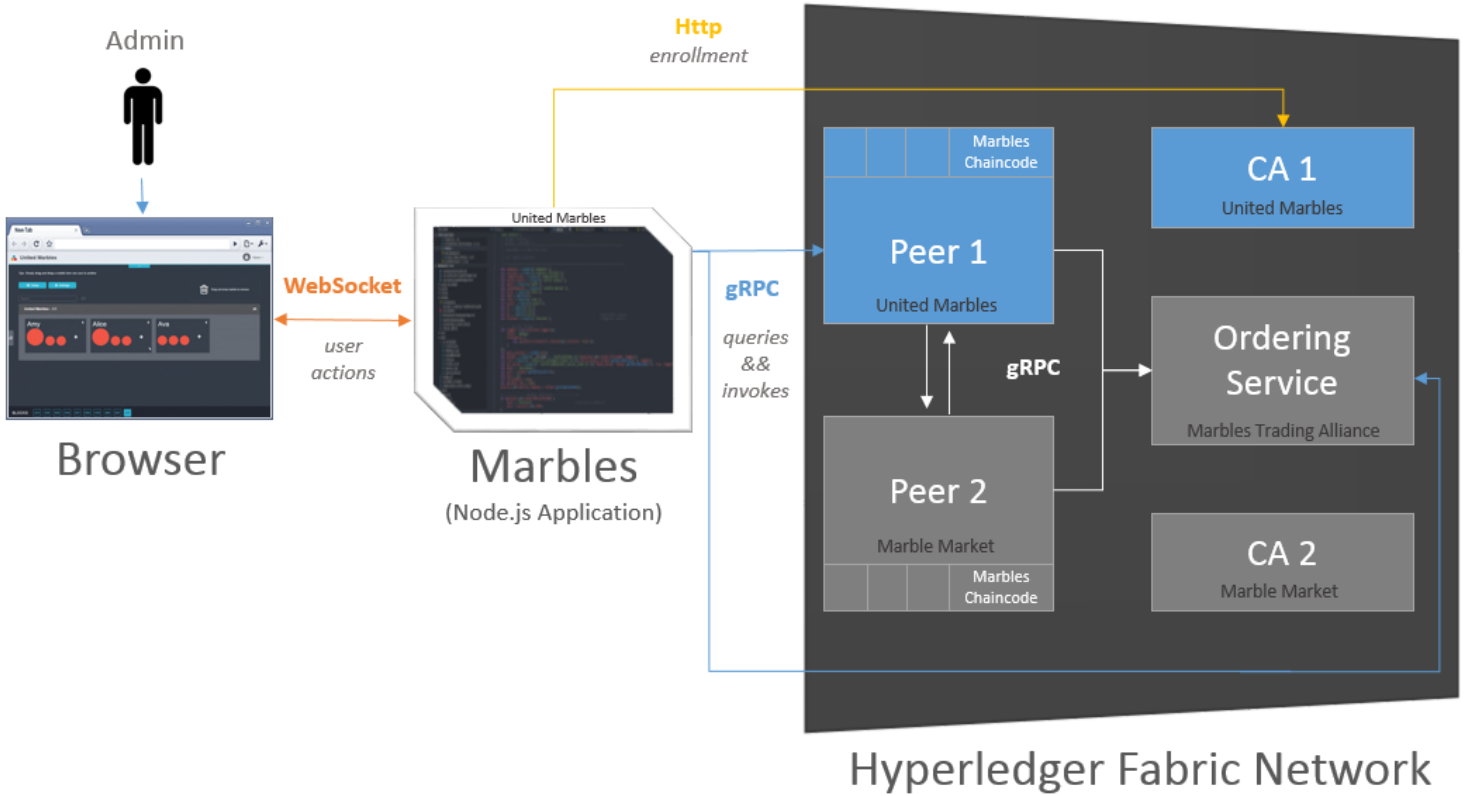


Marble A:

- ✓ **Now owned by Owner 2**
- ✓ **Change committed to the blockchain (*consensus achieved*)**
- ✓ **Marble A no longer under Owner 1 control**

Representing a marble using blockchain technology

Blockchain "Smart Contract" feature is used to define the **marble properties**

Attributes of a marble:
1.id (unique string, will be used as key)
2.color (string, css color names)
3.size (int, size in mm)
4.owner (string)

Marbles Demo