exchange union

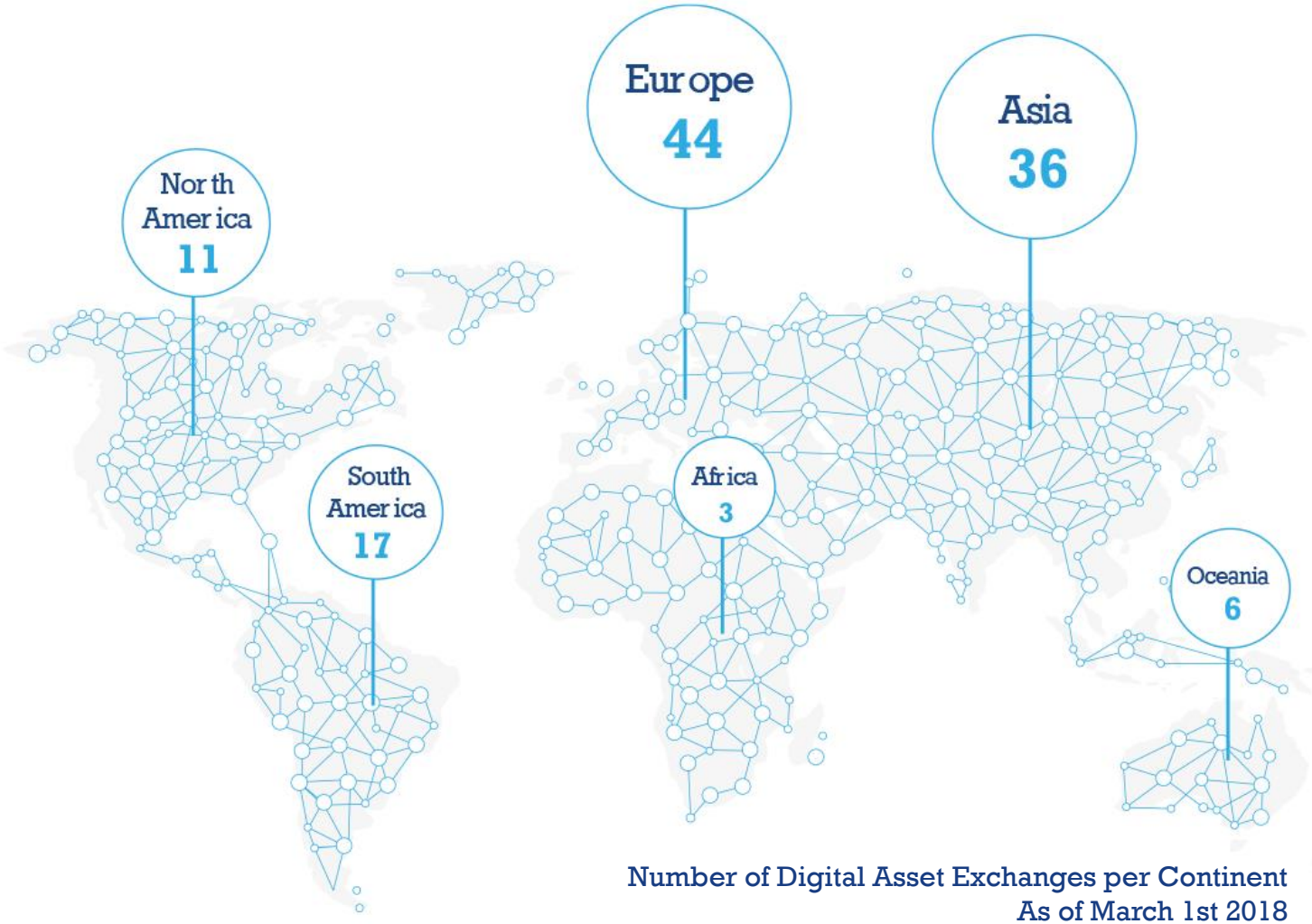
Digital Asset Markets

Types of Digital Assets:
1,500+

Market Capitalization of Digital Assets:
$400bn+

Total 24h Trading Volume:
$17bn+

Number of Digital Asset Exchanges:
100+



Number of Digital Asset Exchanges per Continent
As of March 1st 2018

Industry Pain Points

Exchanges:

- Are localized and isolated
- Have limited trading pairs
- Struggle to maintain adequate liquidity

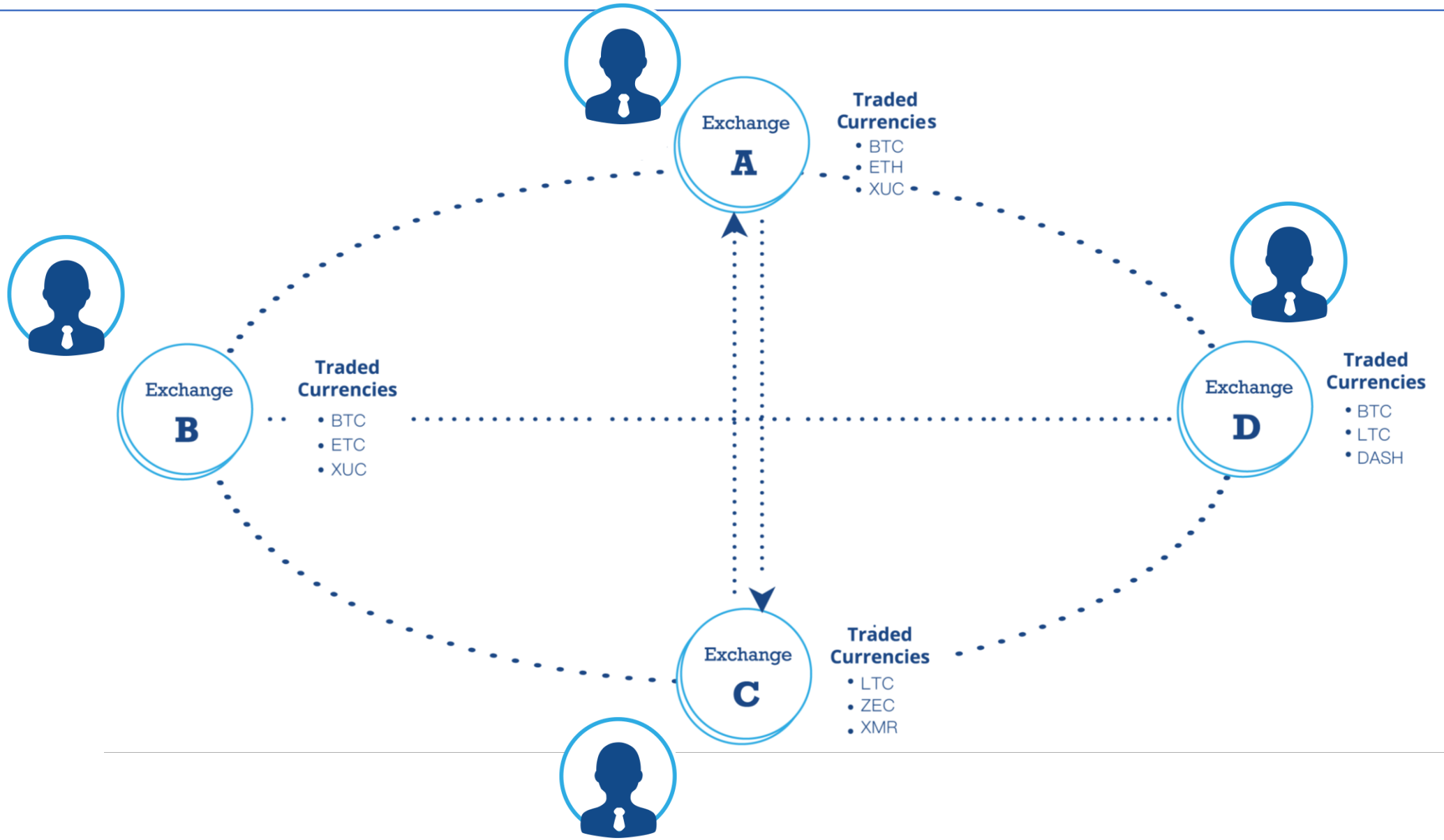
Users:

- Encounter real-time price discrepancy
- Face inefficient & costly cross-exchange transactions
- Need to verify multiple accounts on different exchanges (access to liquidity and new trading pairs)

Vision

*"The first **decentralized network**, which enables **instant and trustless** trades between digital asset exchanges."*

What does that mean?



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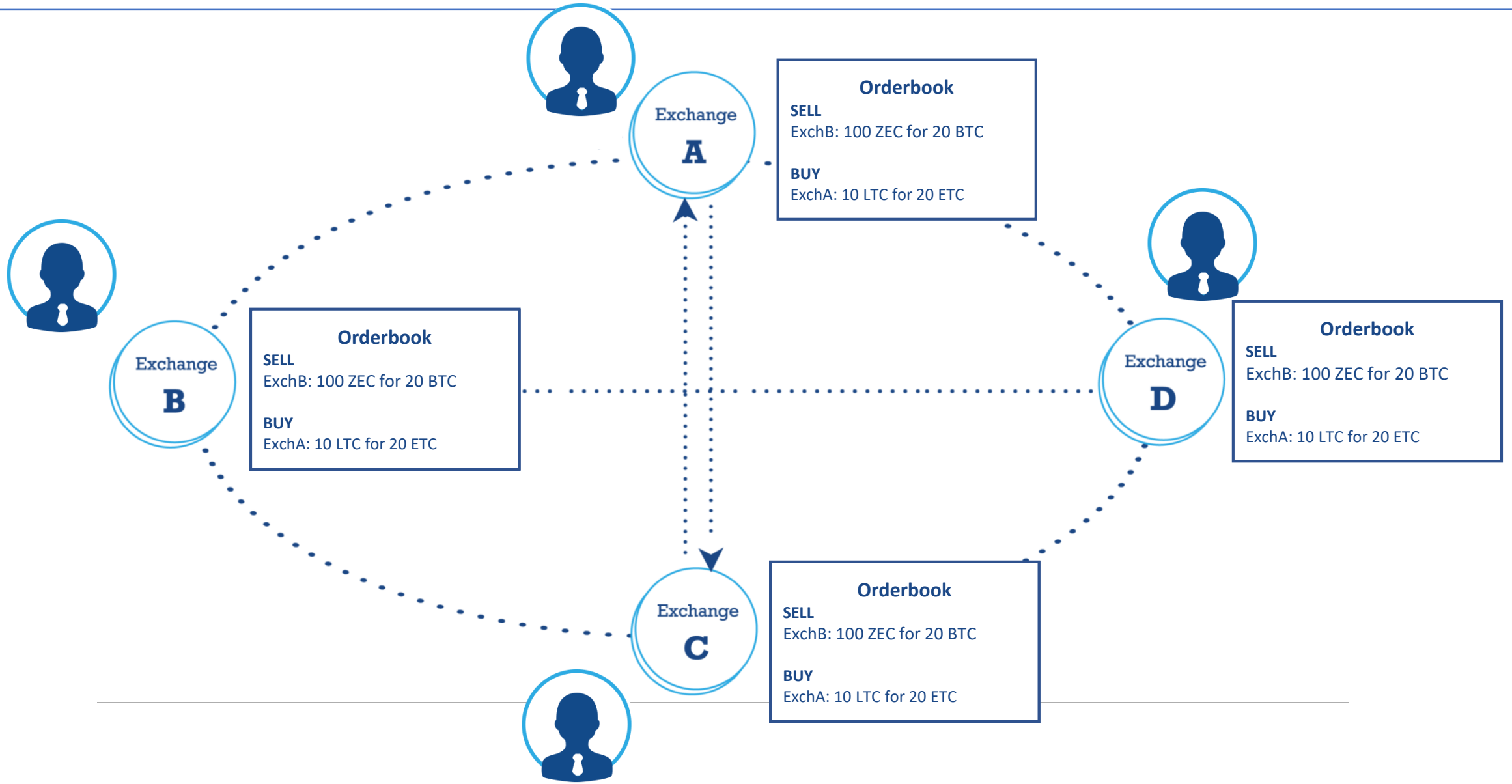

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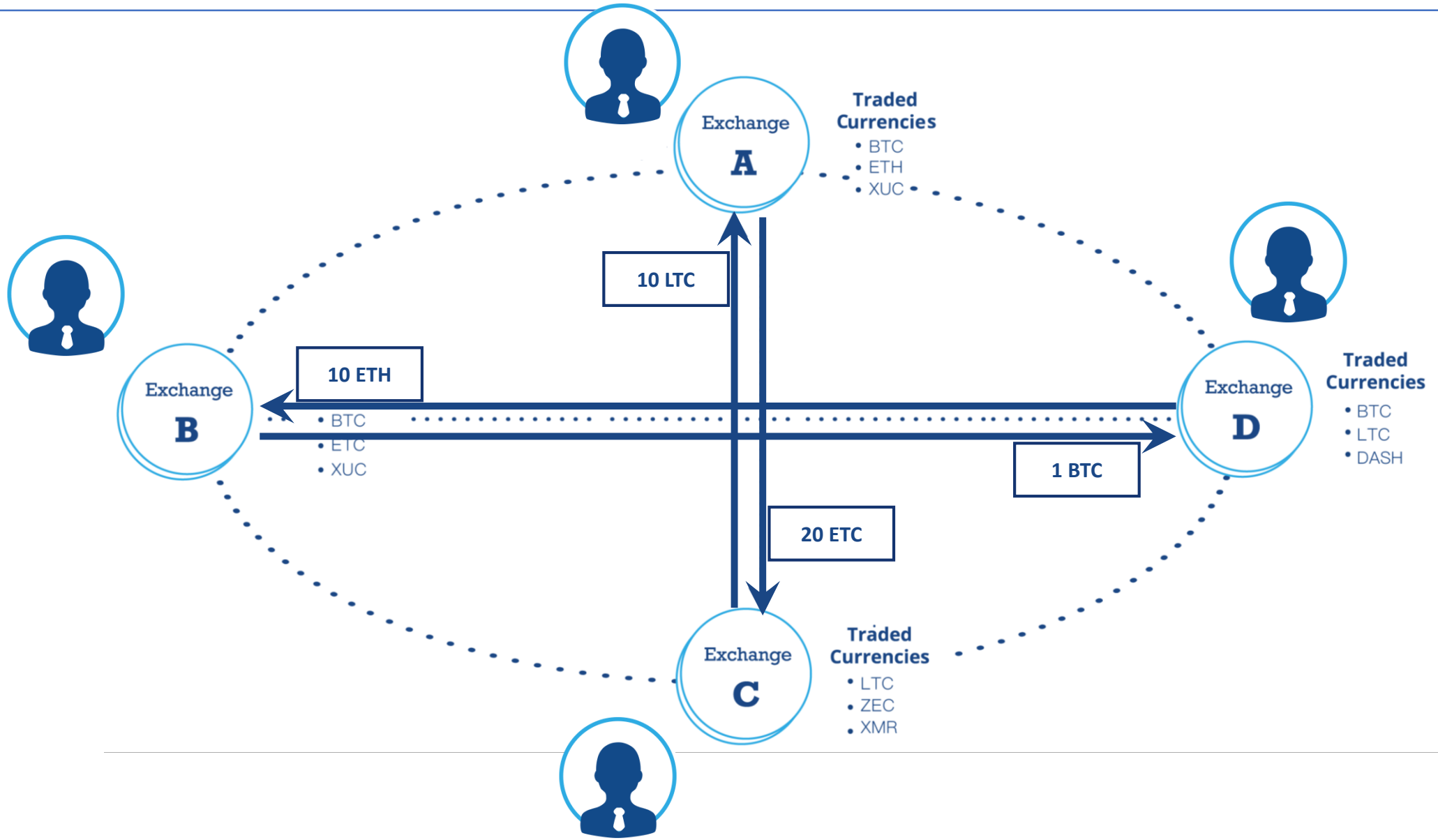


Who benefits?

Exchanges:

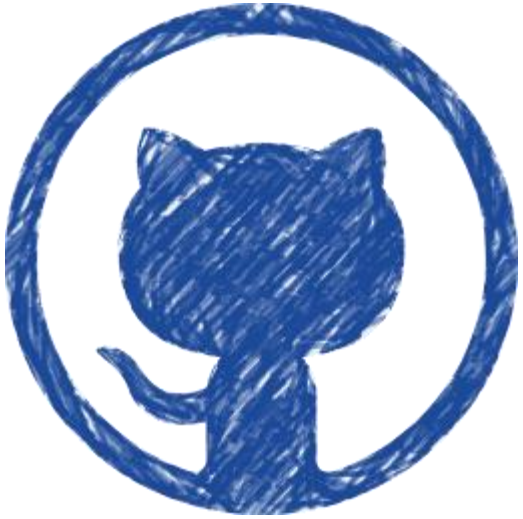
- Larger user base
- Increased volume & earnings
- Increased liquidity
- Robust decentralized trading infrastructure

Users:

- Tighter spread
- Best price
- All trading pairs
- No need for multiple verified accounts

What do we do?

- We build the software for connecting exchanges: **XU Node**
- Open-source (YES!)
- Currently one of our main tasks: Build the developer community
- Bitcoin → new era of open source development
- We believe the new open-source is self-sustaining
  → Code contribution increases value of project and thus the value of the token
  → For the first time free open-source development pays back!



How do we realize this?

XUC

How do we realize this?

XUC = Fee & Incentive System

XUC

XUC rewards:

- Exchanges: for providing liquidity, airdropping XUC to users
- Users: for trading certain volume via Exchange Union
- Developers: for each code contribution, review, testing

→ Very important for the phase we are in right now

XUC

Once up and running XUC rewards:

- Anyone: for providing services in the union
  - Providing liquidity / market making
  - Validate Orderbooks
  - Other payment channel services like a watchtower

Why decentralized?

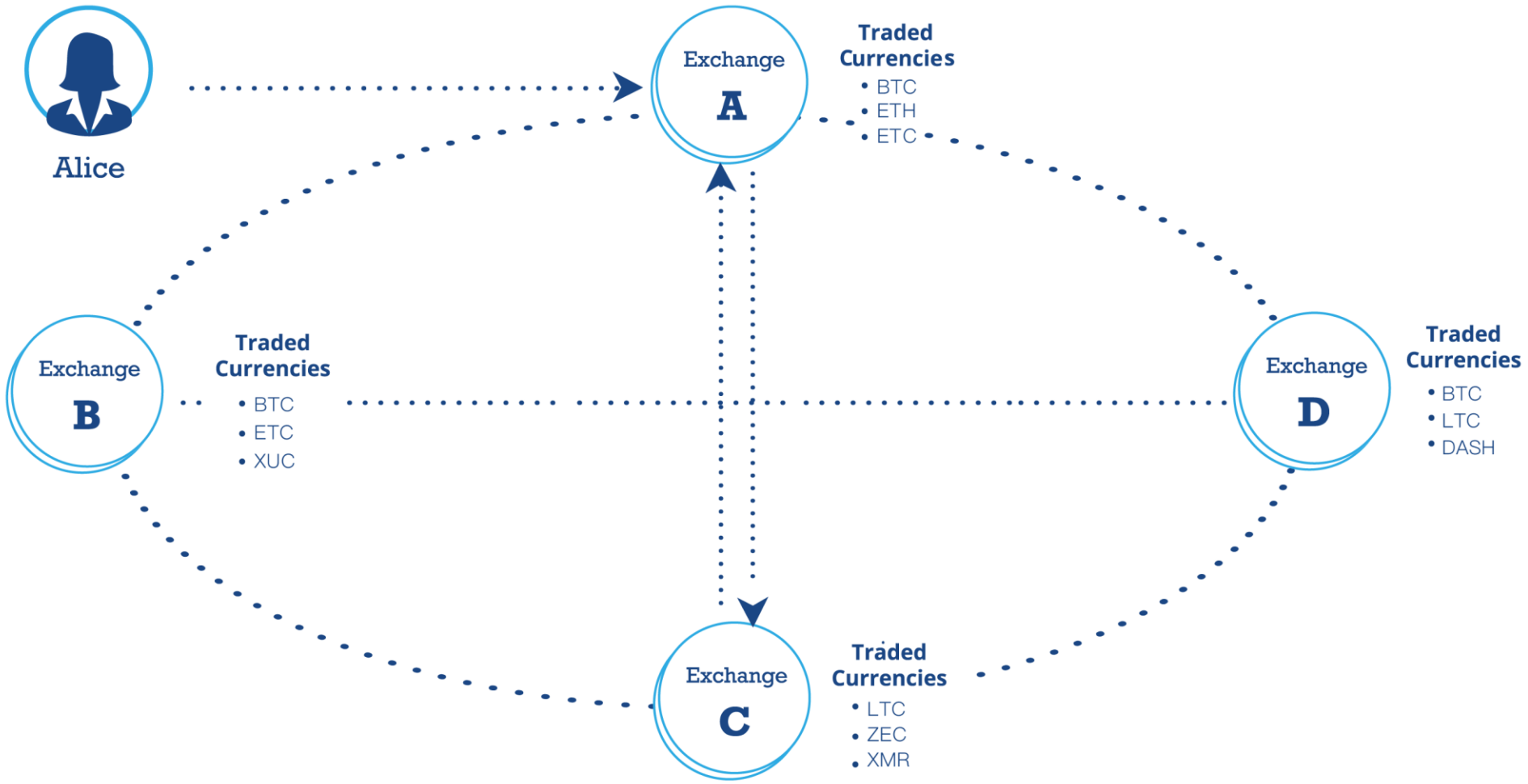
- Centralized would be much easier ;)

- Decentralized: No Single Point of Failure
  → No way to shut it down (like the Internet)
  → Censorship resistant
  → That's why Bitcoin, Litecoin, Ethereum & Co are amazing!

- Similar solutions:
  - Missing incentives
  - Technology stack slow or centralized
  - Benefits are one-sided (e.g. traders, but not exchanges)

Use Case

Portfolio		
	Before	After
BTC	2	
LTC	0	
ETC	100	



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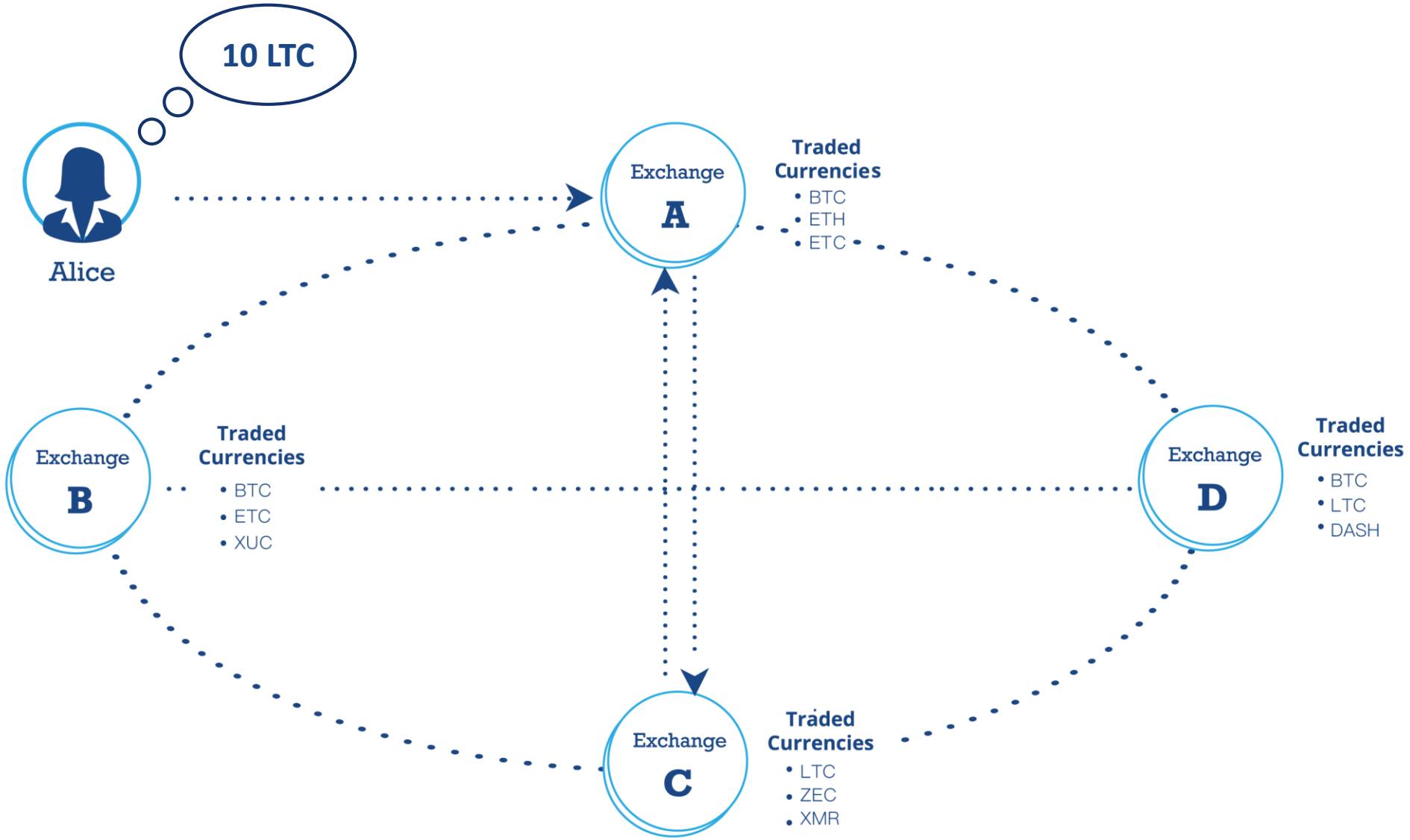

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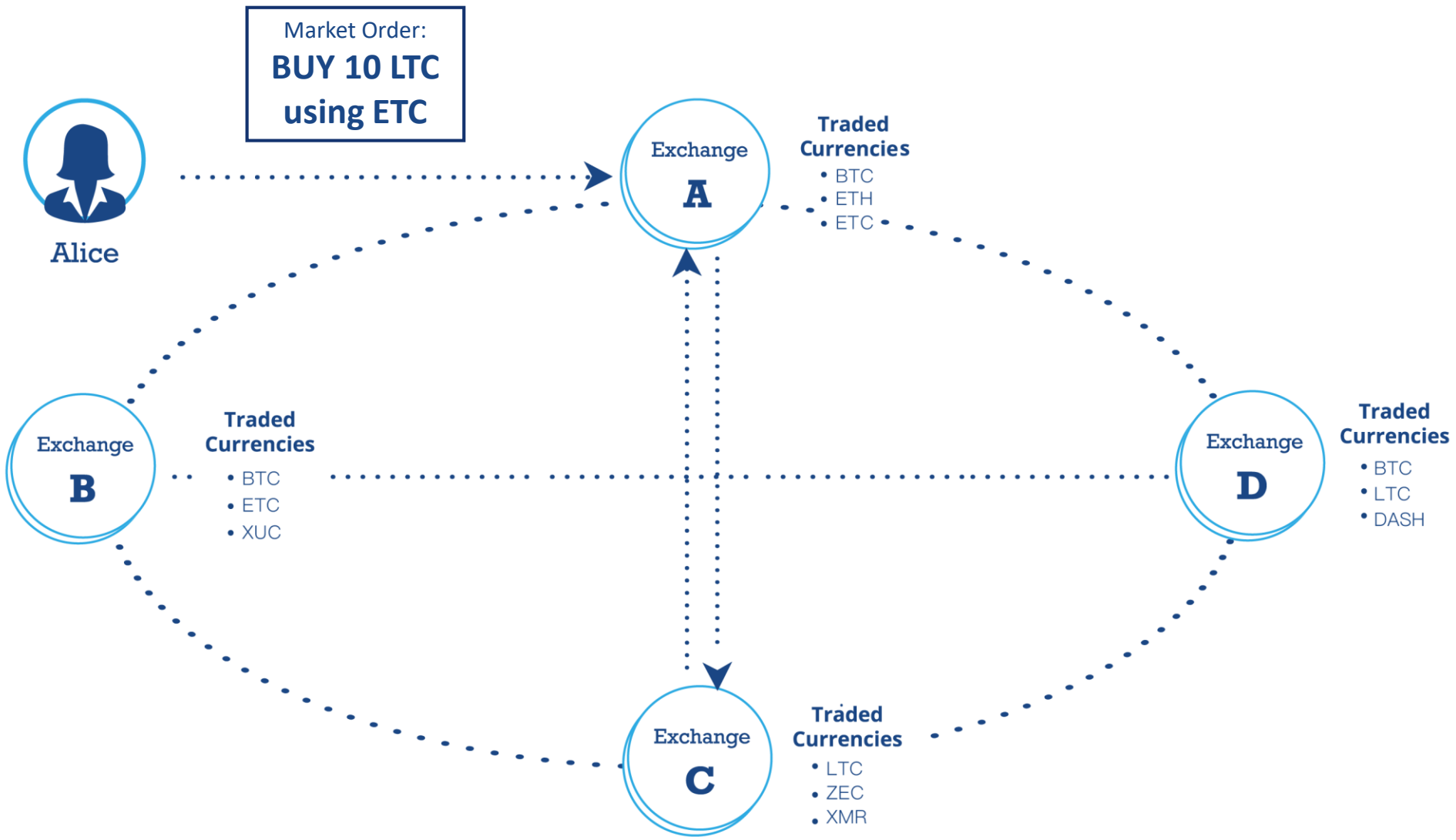

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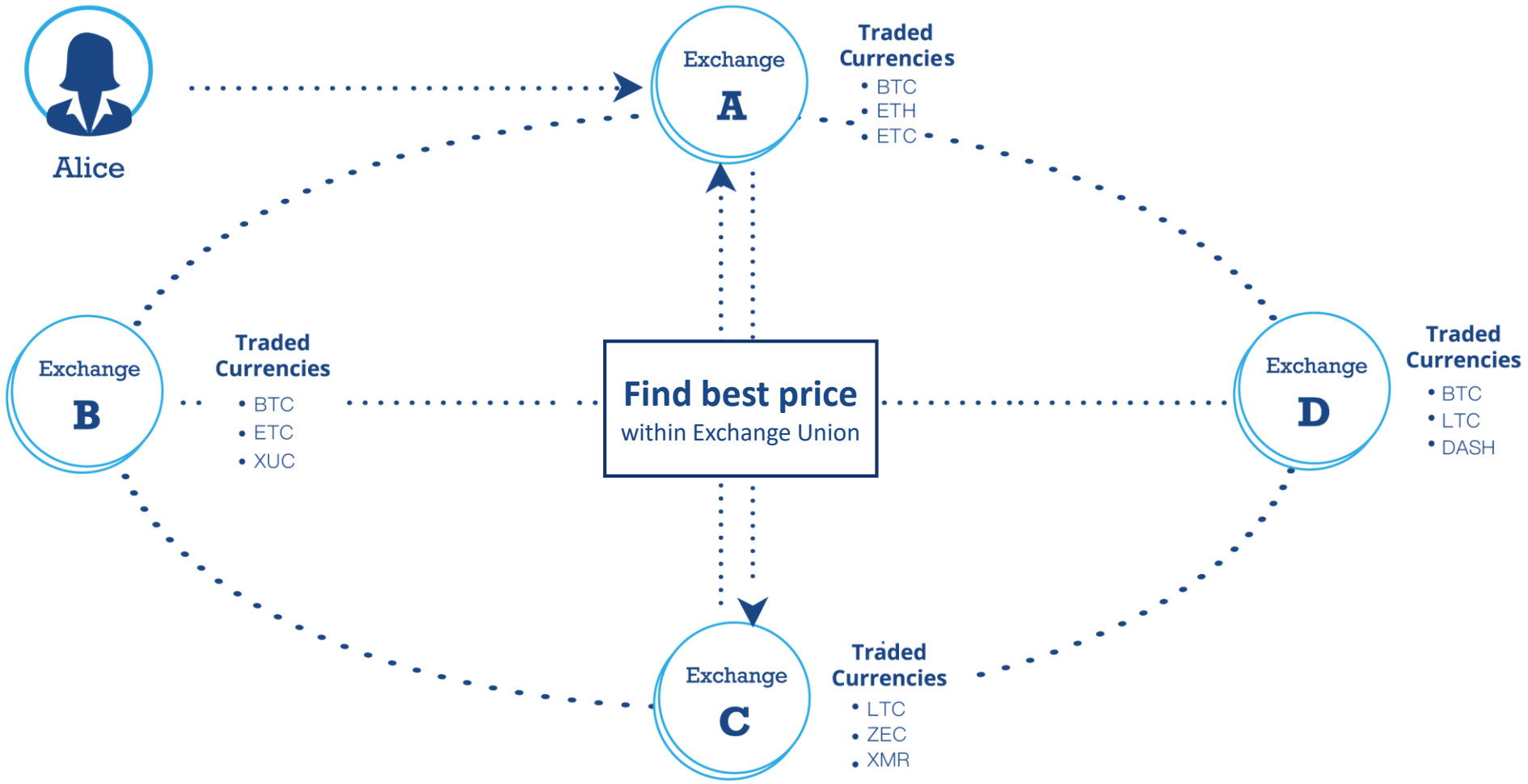

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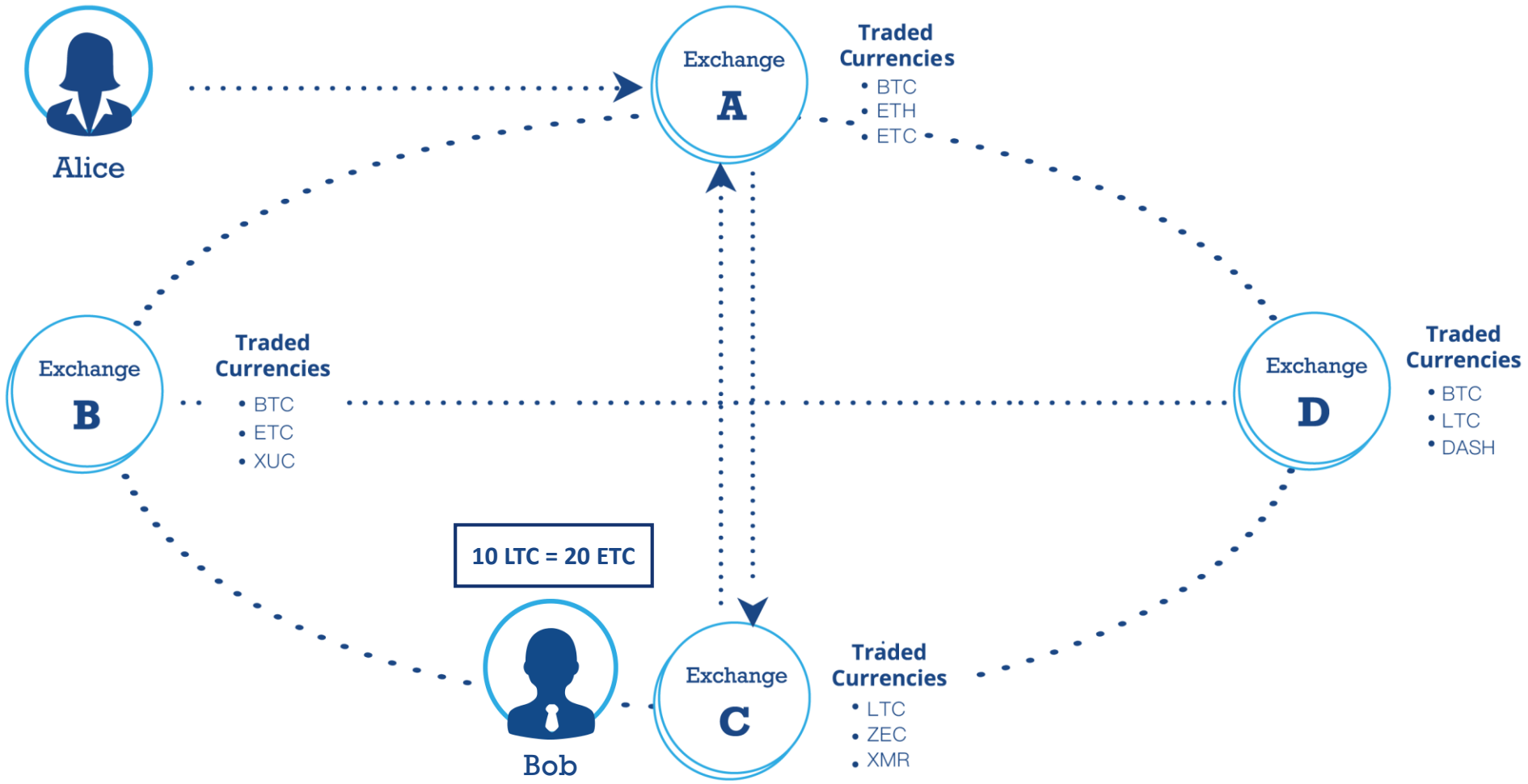

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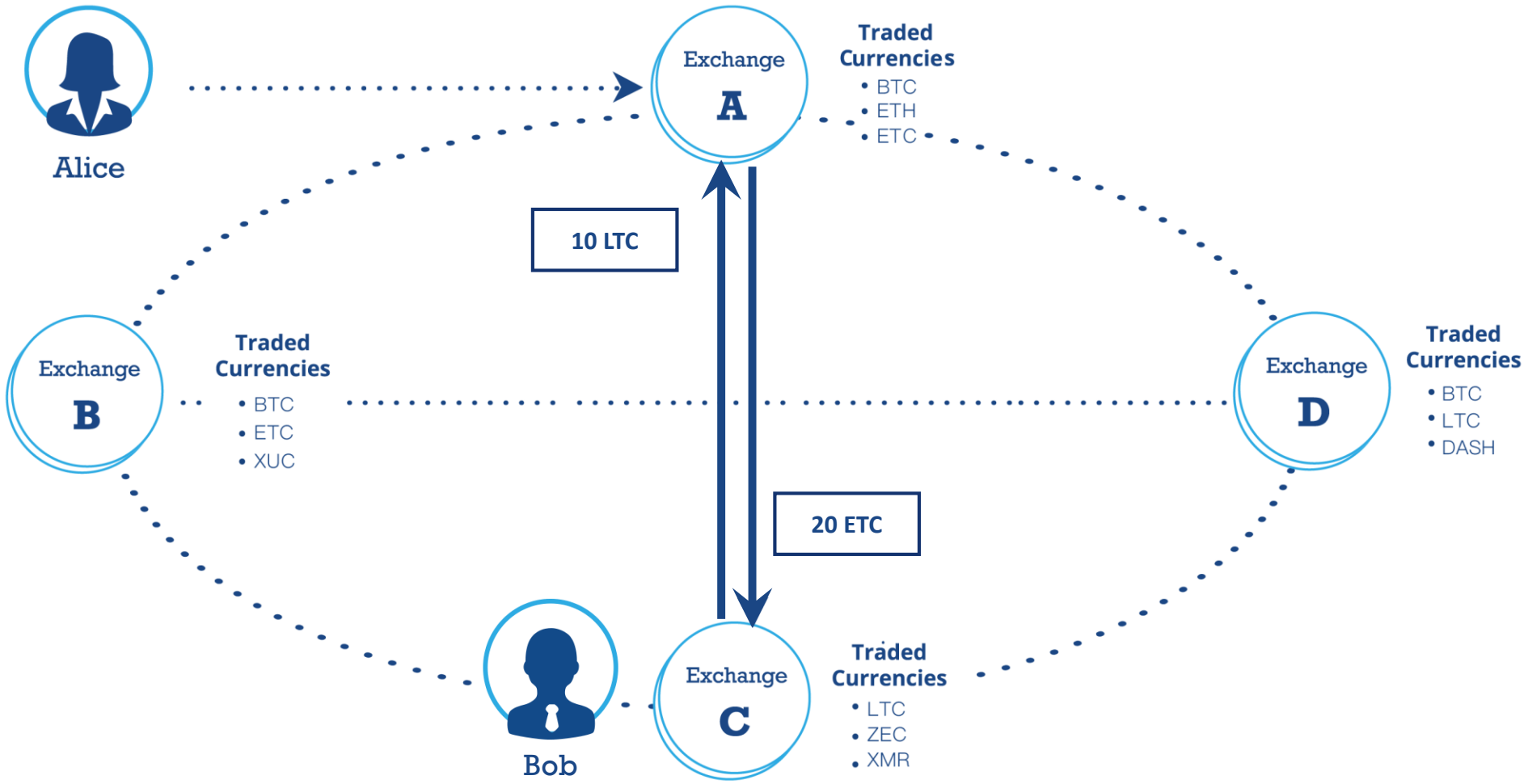

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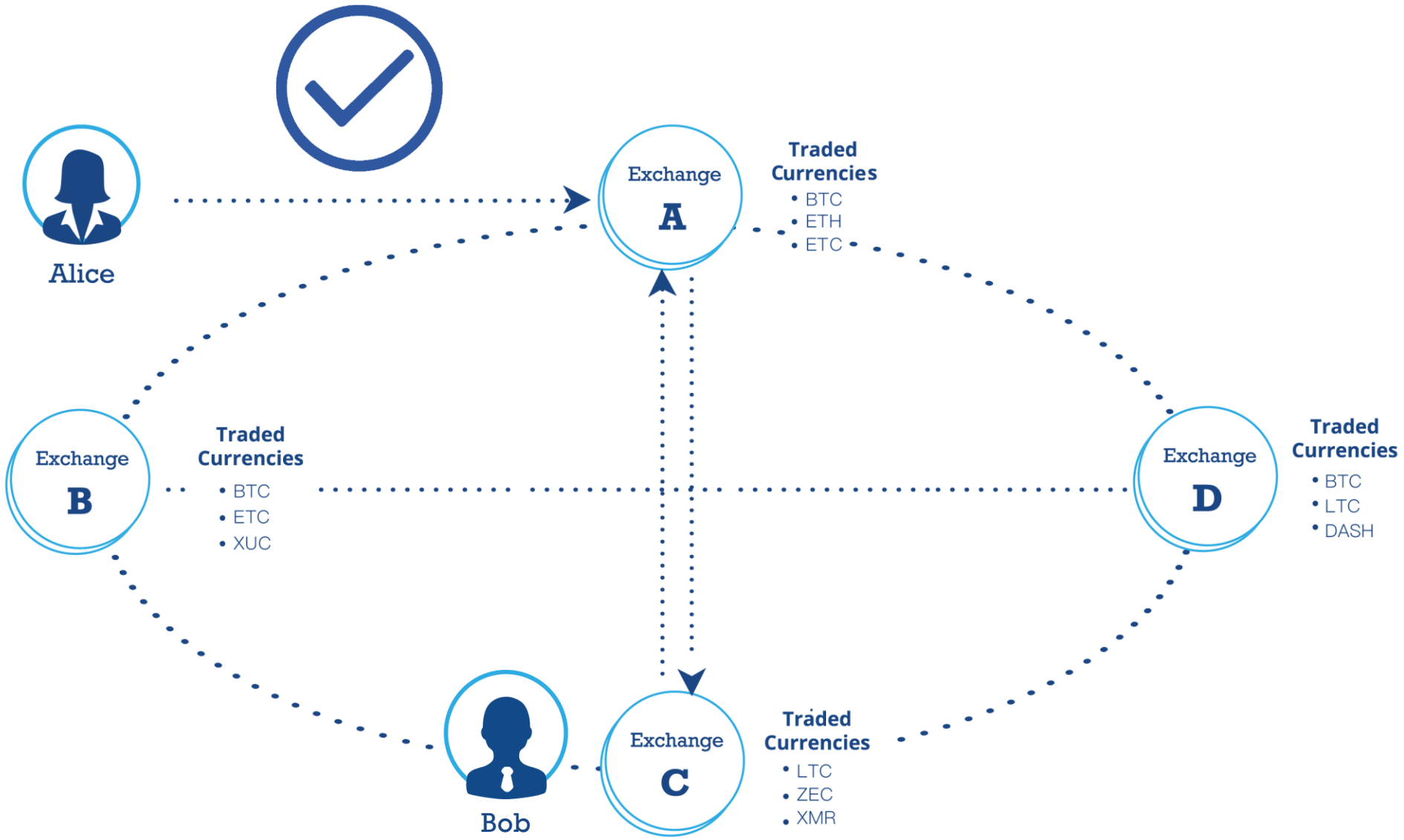
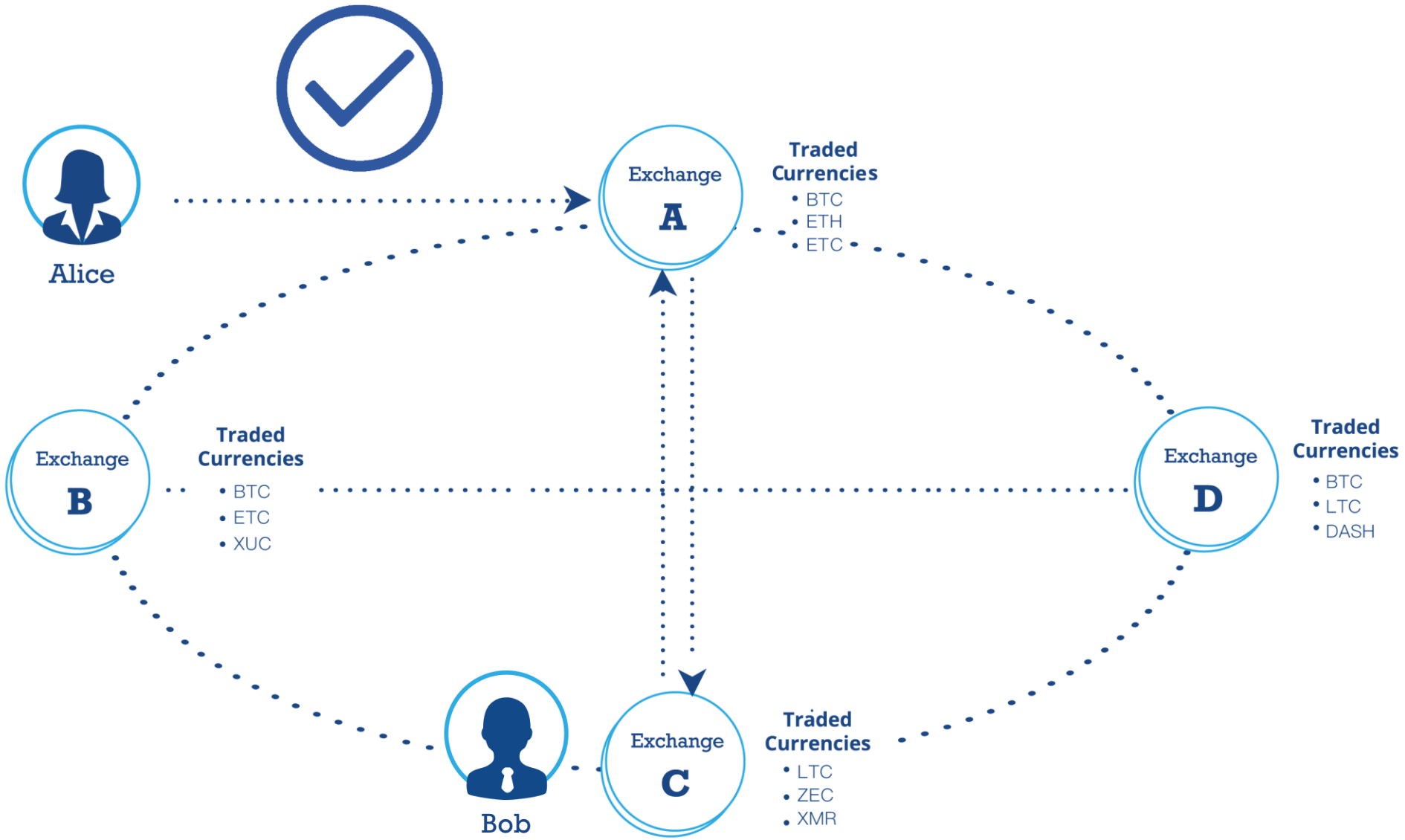
ETC	100	



Use Case

Portfolio		
	Before	After
BTC	2	2
LTC	0	10
ETC	100	80



Technical Architecture

3 Key Technologies

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1. Payment Channels
Each trade transfers real digital assets *instantly* between exchanges

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Each trade transfers real digital assets *instantly* between exchanges

2. Atomic Swaps
Trustless trades directly between two exchanges

Technical Architecture

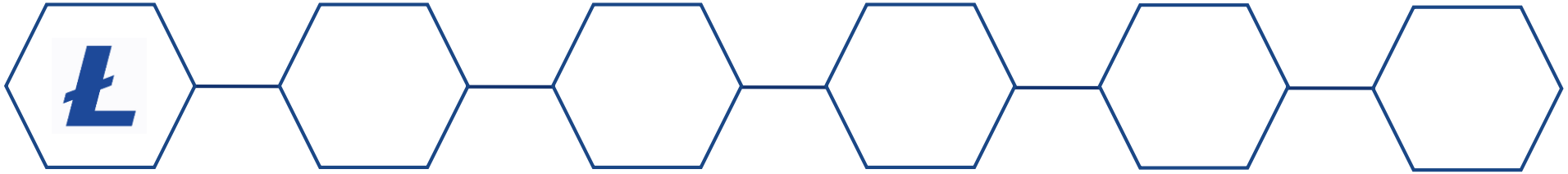
3 Key Technologies

1. Payment Channels
Each trade transfers real digital assets *instantly* between exchanges

2. Atomic Swaps
Trustless trades directly between two exchanges

3. Decentralized Orderbooks
Solving the pain points of digital asset exchanges – *connecting buyer & seller*

Status Quo



Status Quo

Source: https://blog.bitmex.com/the-lightning-network/

1. Payment Channels

Yes, we are talking about Lightning & Raiden!

1. Payment Channels

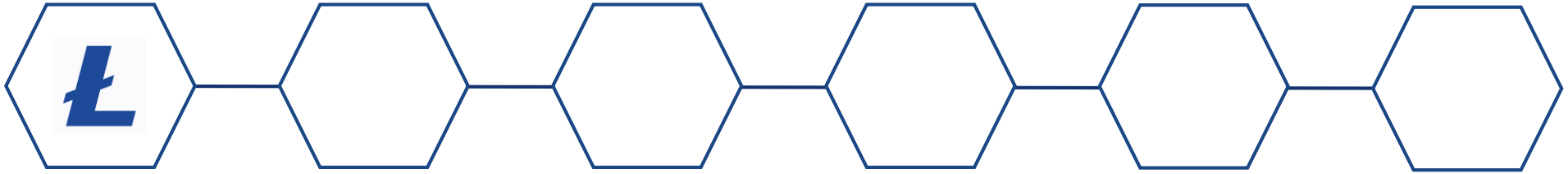
Old idea, obviously Satoshi already came up with the basics:

*One use of nLockTime is **high frequency trades** between a set of parties. They can **keep updating a tx** by unanimous agreement. The party giving money would be the first to sign the next version. If one party stops agreeing to changes, then the last state will be recorded at nLockTime.*

Source: https://lists.linuxfoundation.org/pipermail/bitcoin-dev/2013-April/002417.html

1. Payment Channels

High-level:



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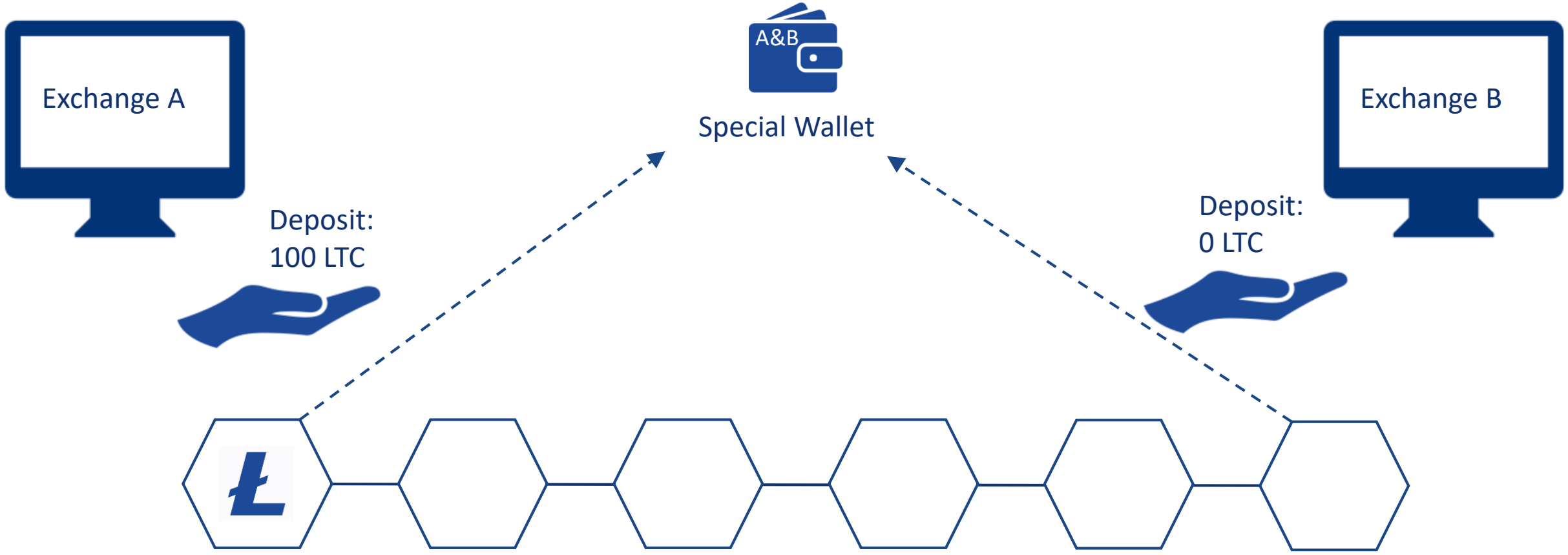

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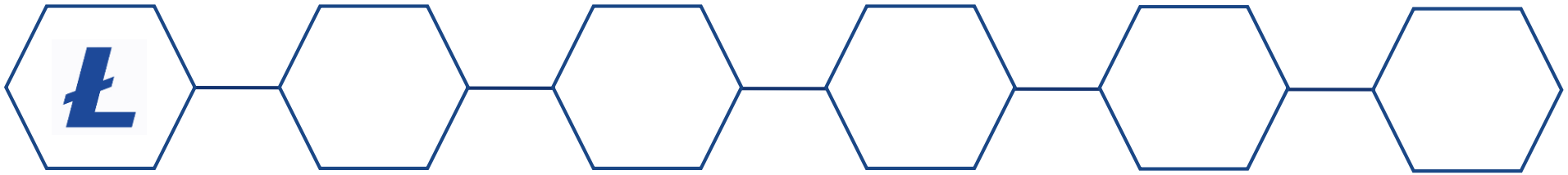

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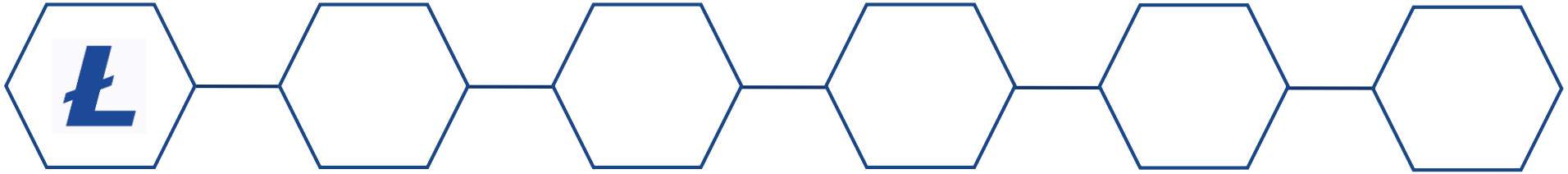

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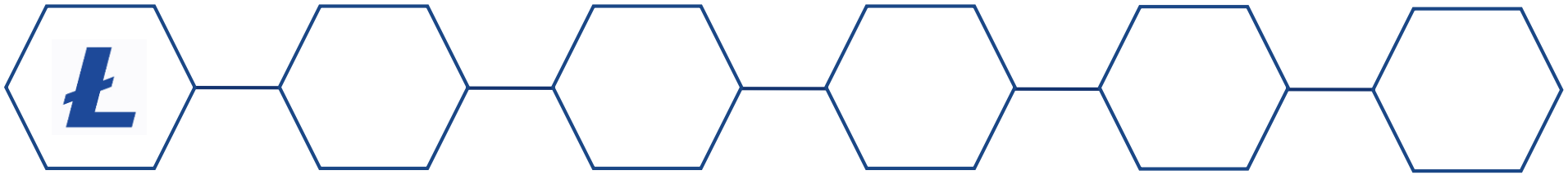
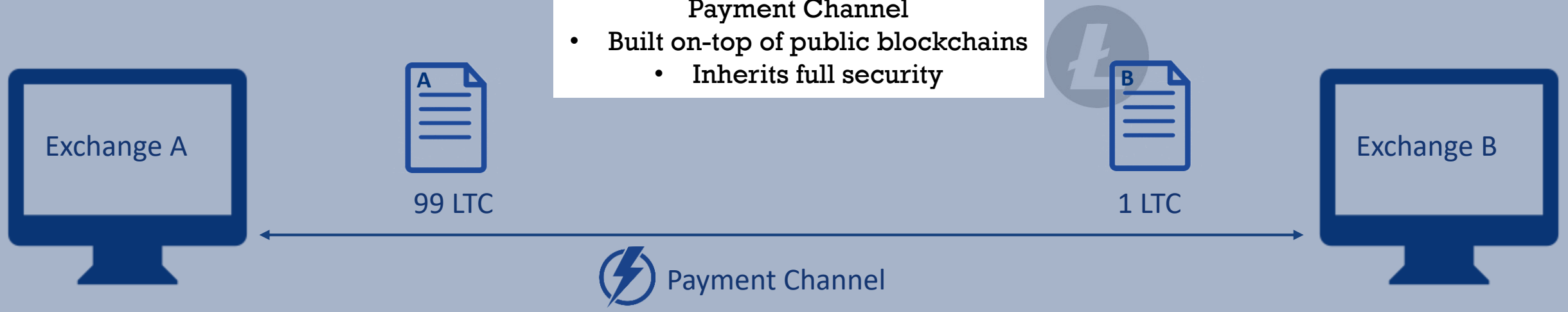


1. Payment Channels

Layer 2

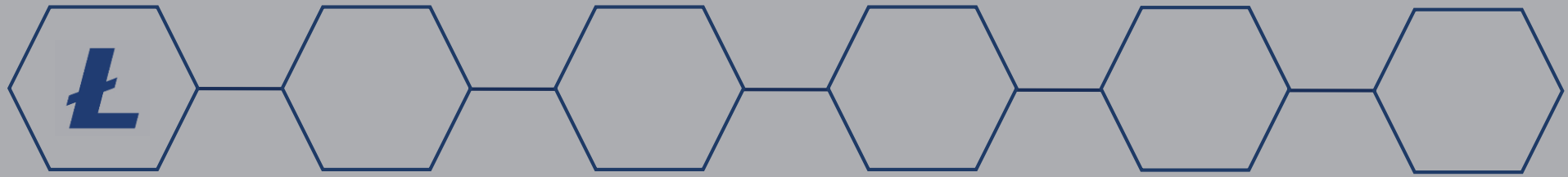
Payment Channel

- Built on-top of public blockchains
- Inherits full security



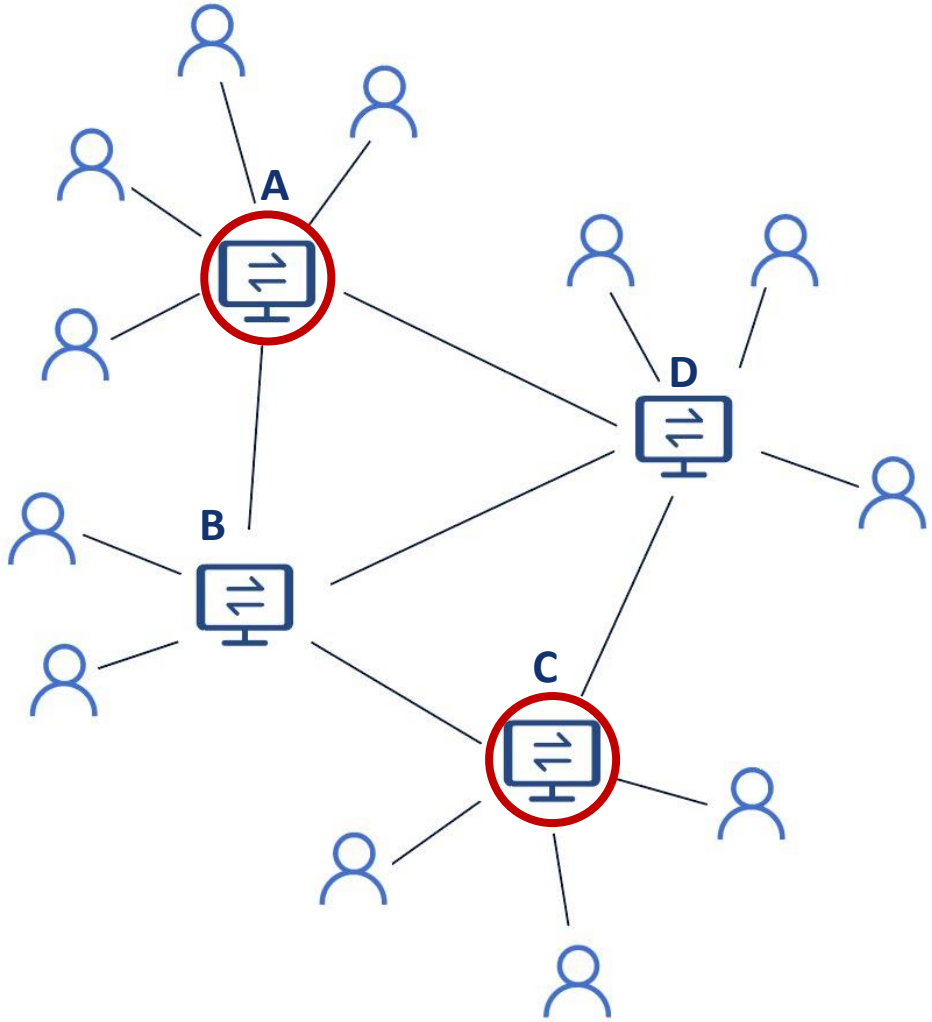
Layer 1

Underlying public blockchain = dispute mediation system



1. Payment Channels

Routing:



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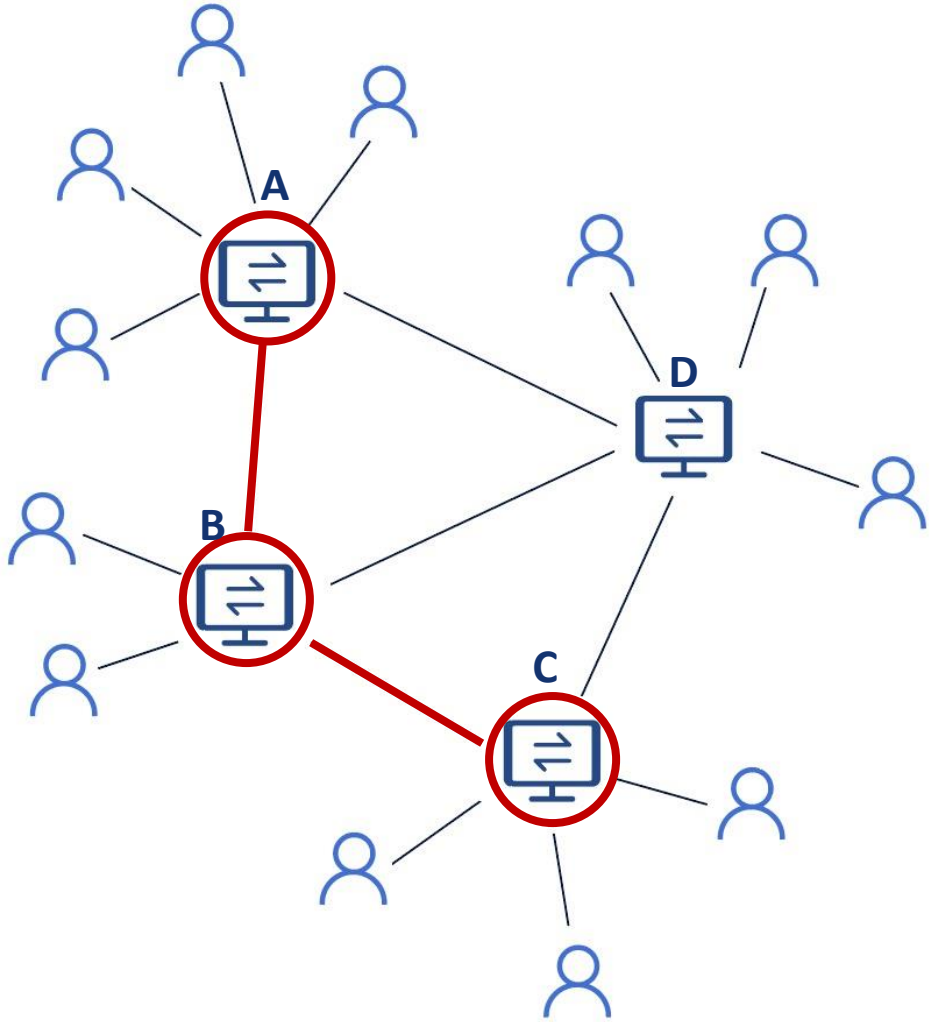

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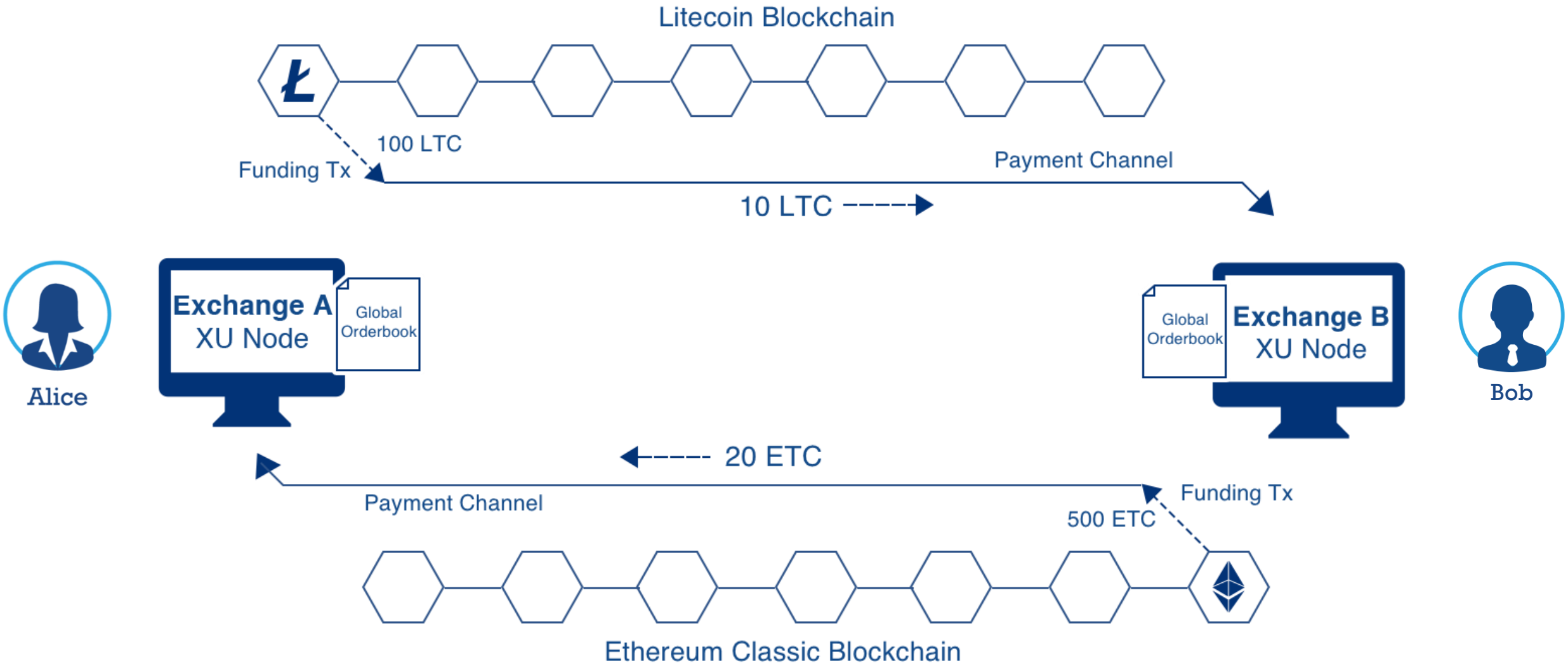
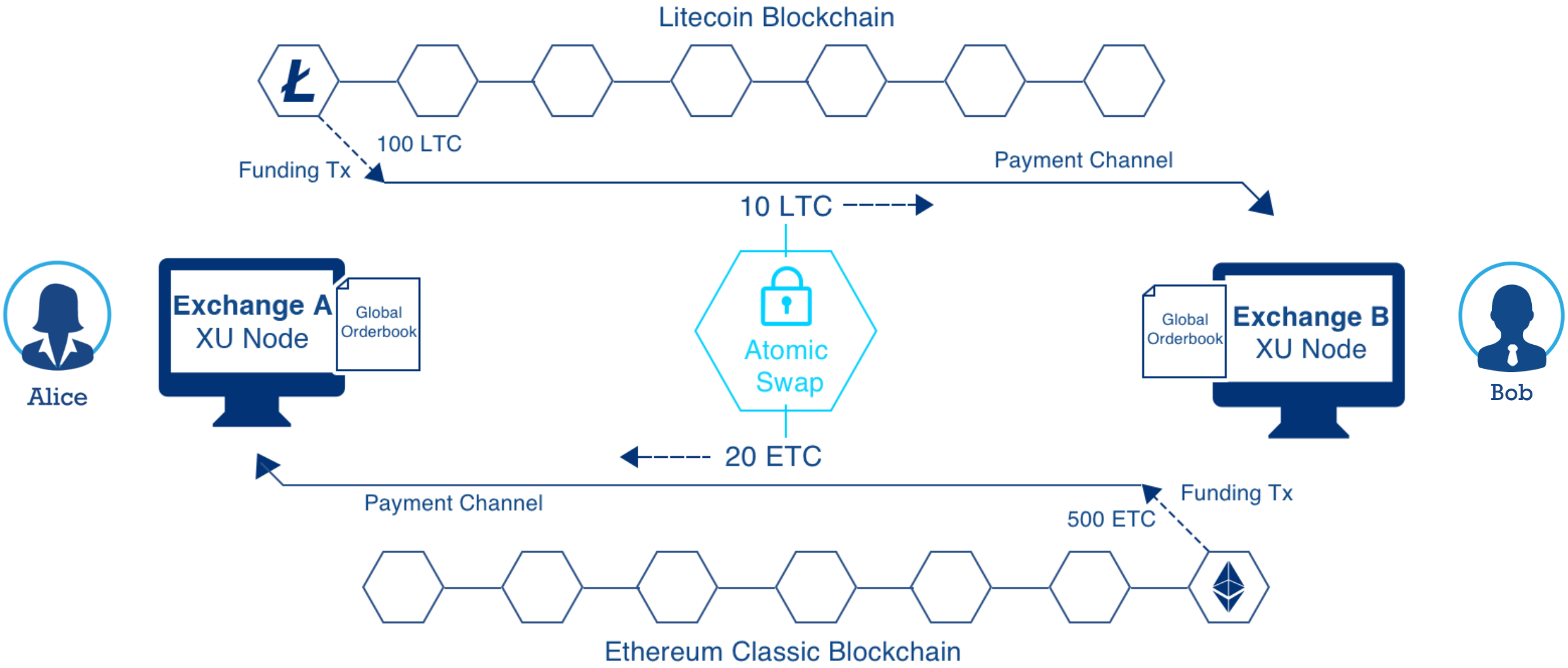


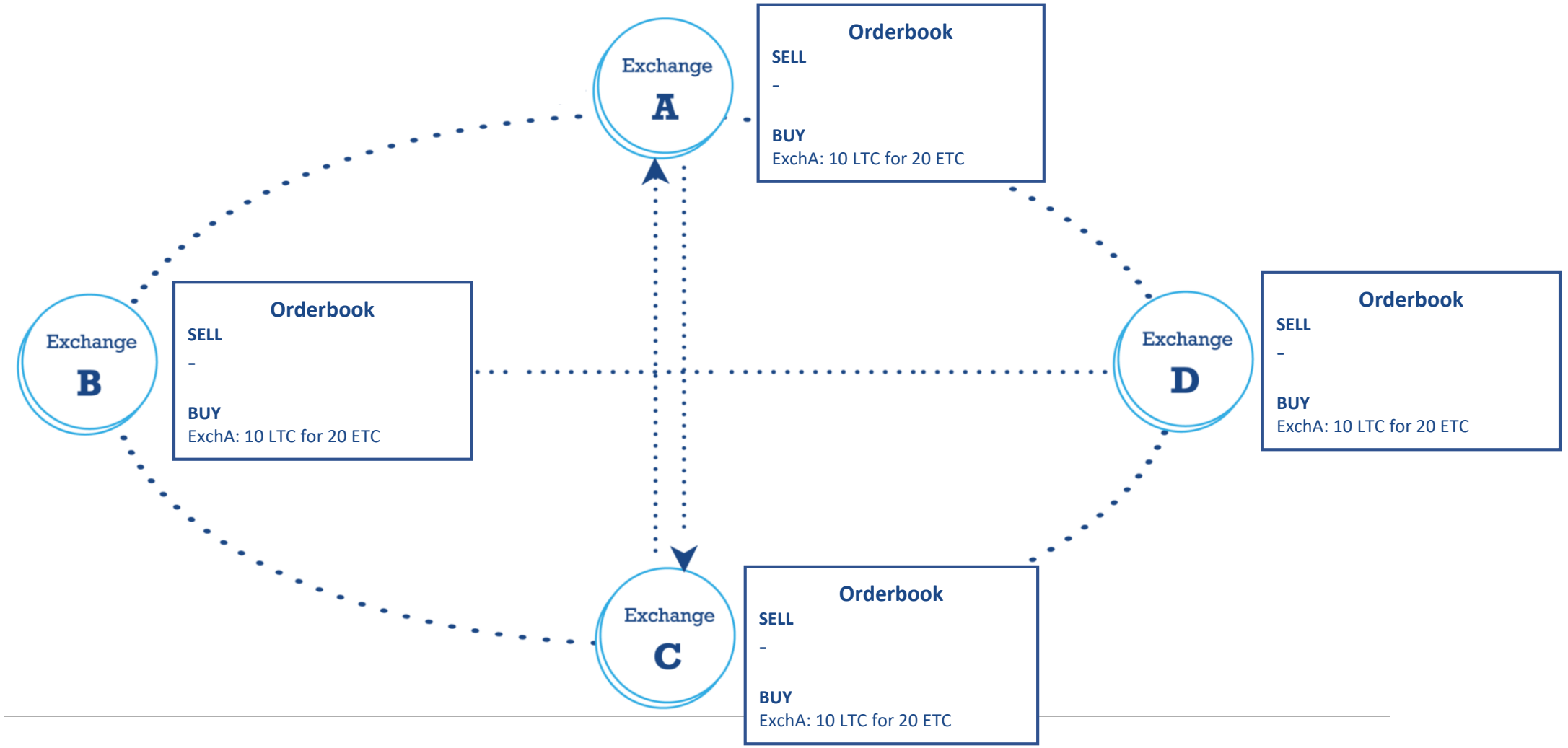
2. Atomic Swaps



2. Atomic Swaps

- Trustless exchange of two different assets
  - No middleman/escrow service needed
- How: guarantee atomicity
  - Both sides of the trade happen or not at all
  - Technology: Hashed TimeLock Contracts (HTLCs)

3. Decentralized Orderbook



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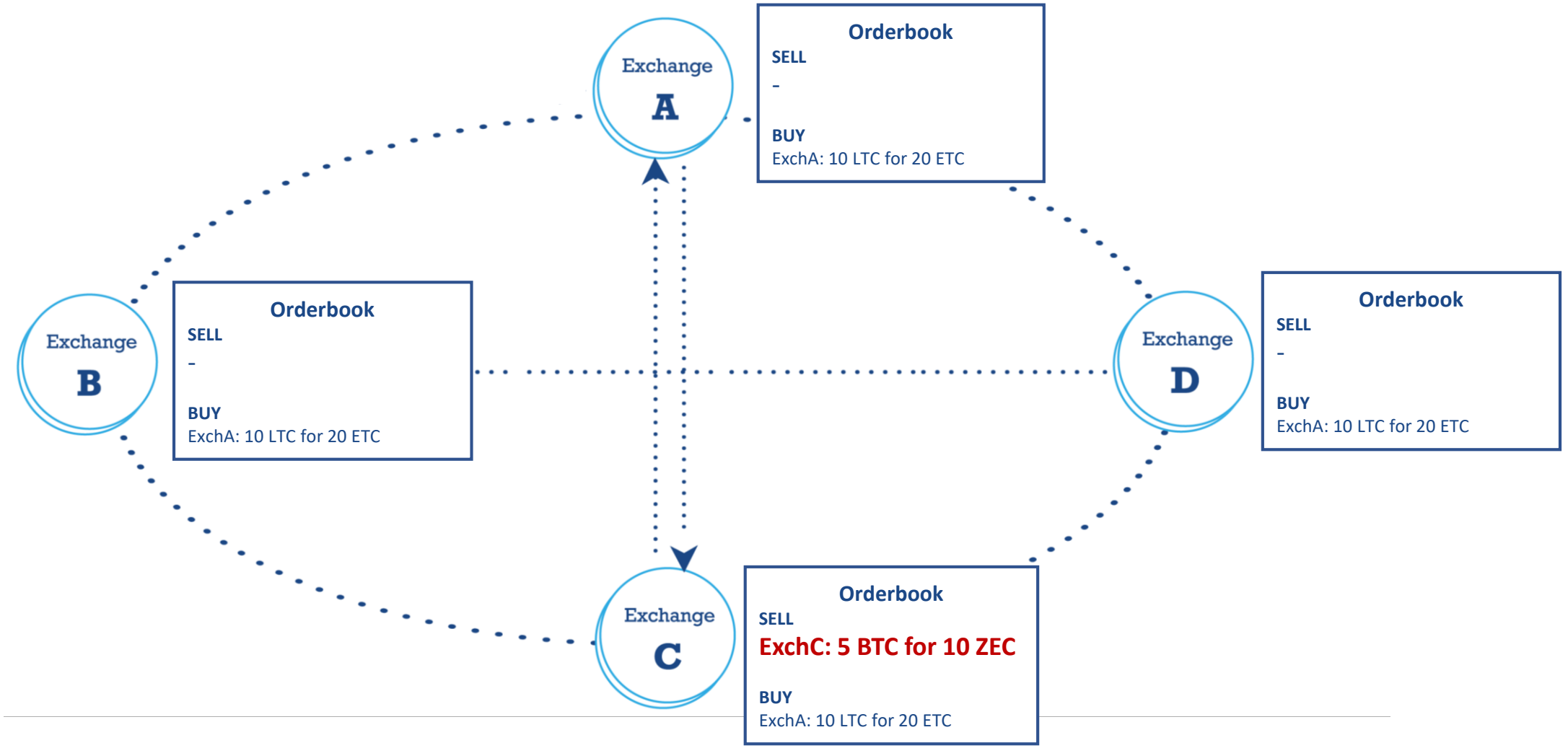

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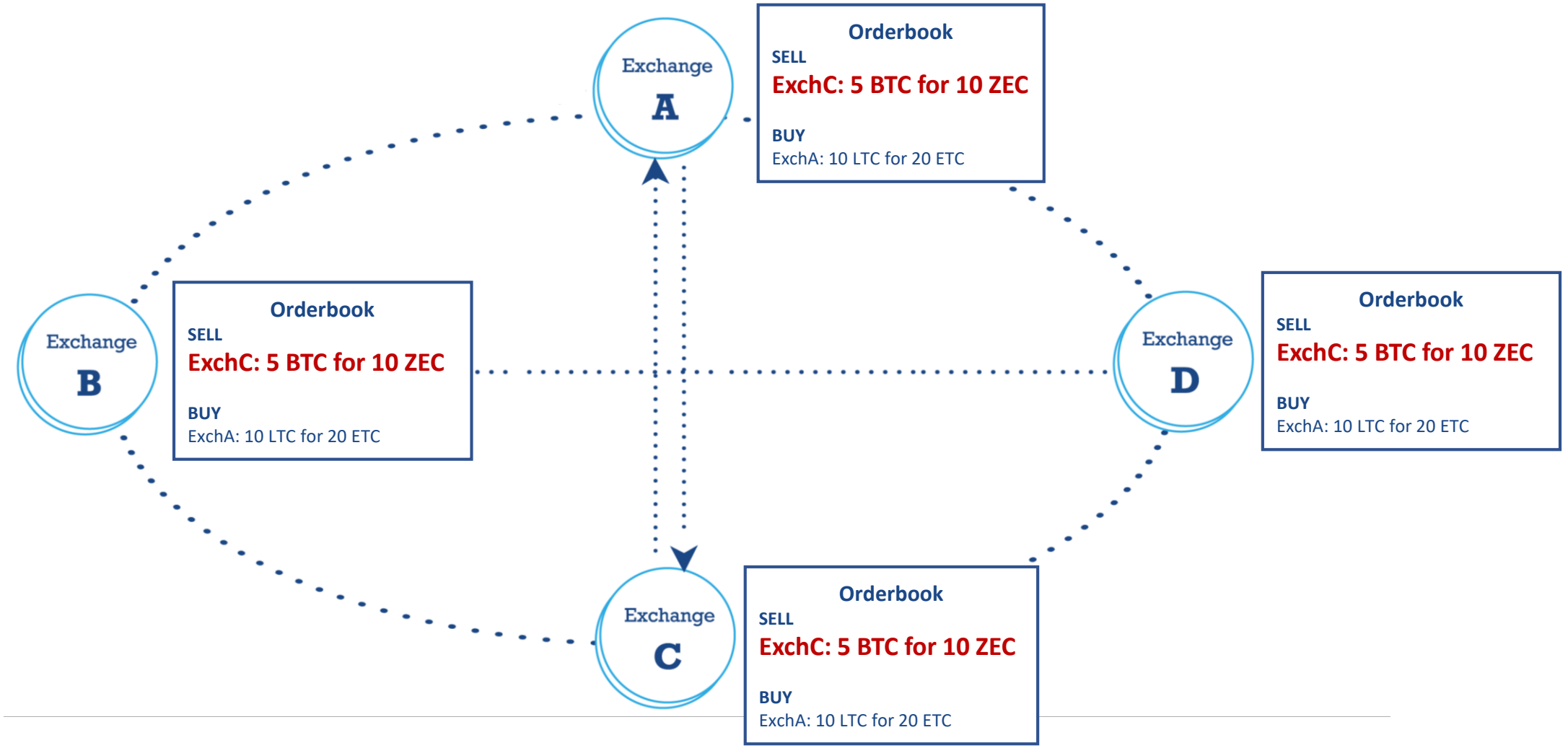


3. Decentralized Orderbook

- XU node software will propagate order updates to peers
  → XUC awarded for validating orders
  → XUC awarded to market makers / liquidity providers

- Orders may be signed only by known key to prove authenticity

Summary

We are not a Blockchain!

Summary

Decentralized & Open Source

Technology:

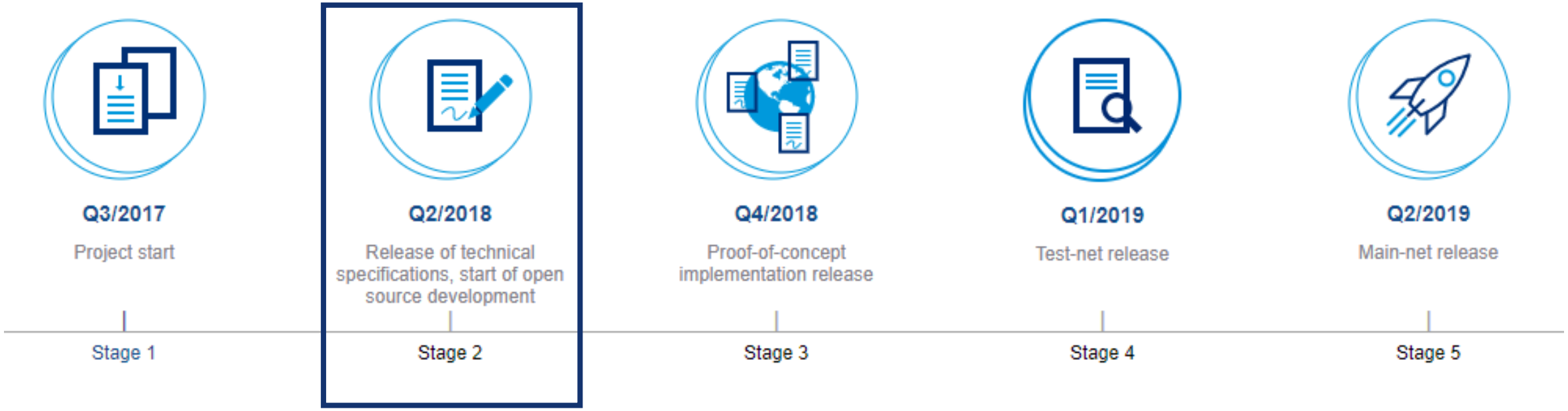
- 1. Payment Channels
- 2. Atomic Swaps
- 3. Decentralized Orderbooks

Benefits:

- Exchanges: increased revenue & liquidity
- Users: trade from one account & best price

XUC is both a fee and an incentive system

Where are we?


Q3/2017
Project start
Stage 1
Q2/2018
Release of technical specifications, start of open source development
Stage 2
Q4/2018
Proof-of-concept implementation release
Stage 3
Q1/2019
Test-net release
Stage 4
Q2/2019
Main-net release
Stage 5

Outlook

Exchange Union is public infrastructure

Enables entire new products:

- Wallets
- Merchant PoS

Promotes financial inclusion

exchange union

exchangeunion.com

2. Atomic Swaps

Lockbox only opens with ‘a_secret’ + B’s signature

2. Atomic Swaps

Lockbox only opens with **'a_secret' +** B's signature

Lockbox only opens with **'a_secret' +** A's signature

2. Atomic Swaps

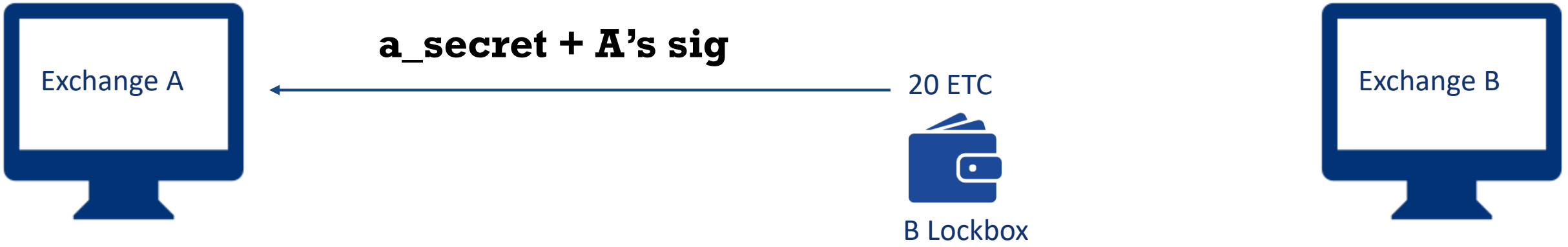
Lockbox only opens with **'a_secret' +** B's signature

Lockbox only opens with **'a_secret' +** A's signature

Both lockboxes need the **same "a_secret"** to be opened!

2. Atomic Swaps

If now A wants to open B's lockbox it has to reveal it's a_secret on the payment channel



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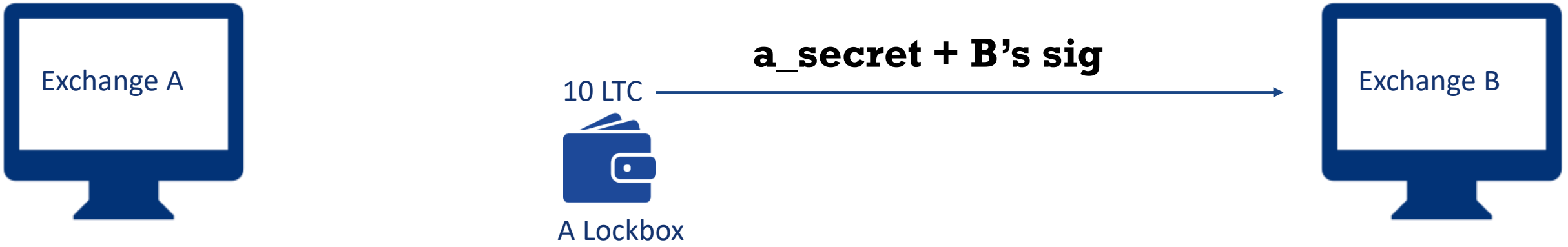

2. Atomic Swaps

20 ETC

10 LTC

2. Atomic Swaps

If something goes wrong, 10 LTC go back to A and 20 ETC back to B after certain time interval