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exchange union

DC BLOCKCHAIN SUMMIT 2018

Exchange Union: The First Decentralized Network Connecting Digital Asset Exchanges

James Wo, CEO
Kilian Rausch, Product Director

03/07/2018

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Digital Asset Markets

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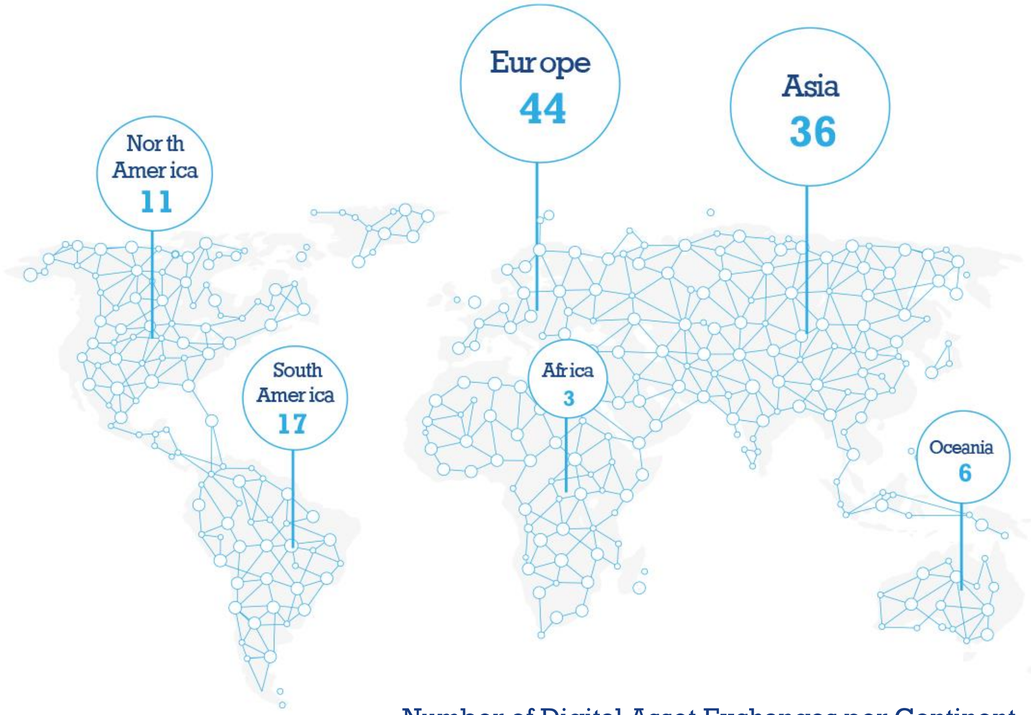
Types of Digital Assets:
1,500+

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

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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

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

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What does that mean?

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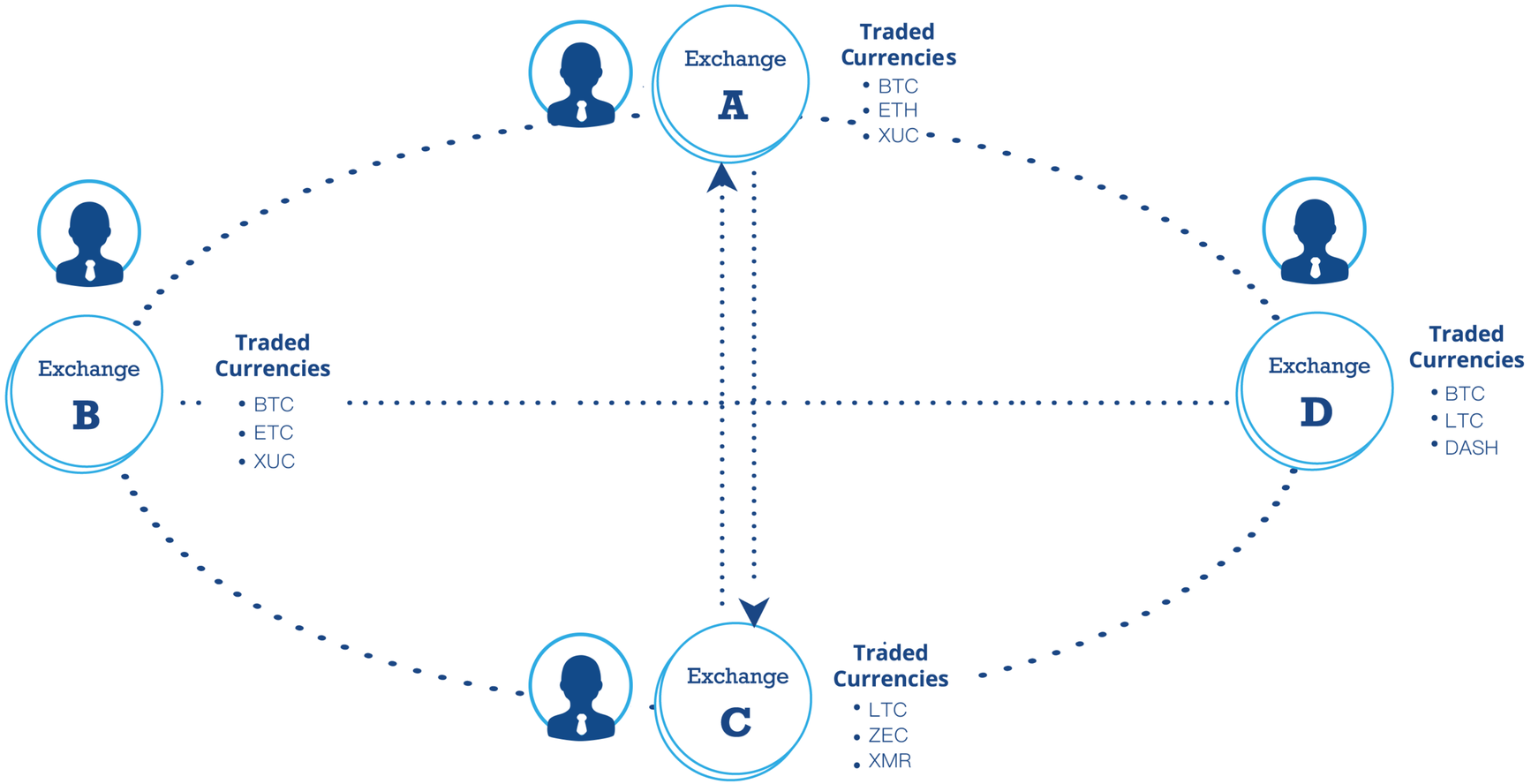

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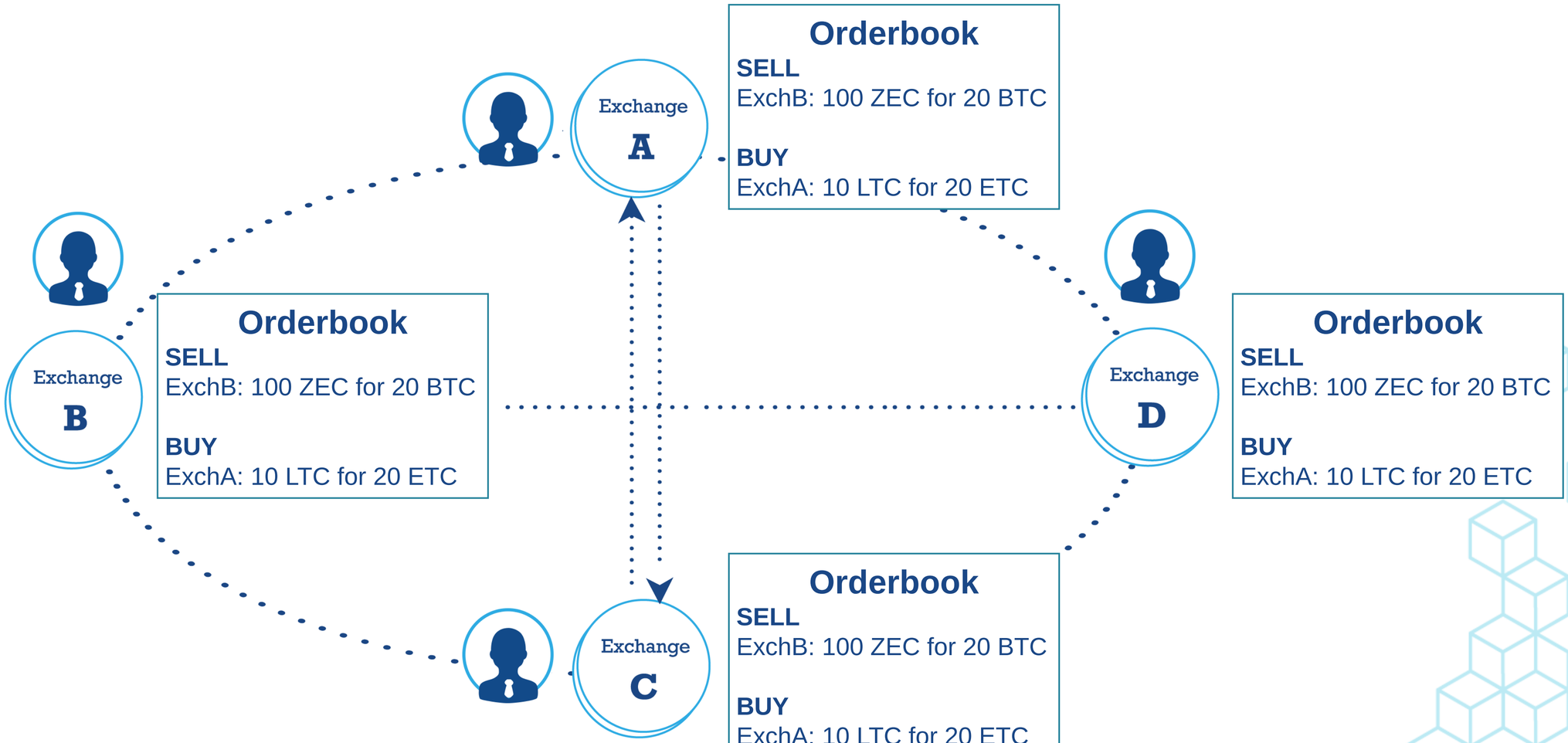

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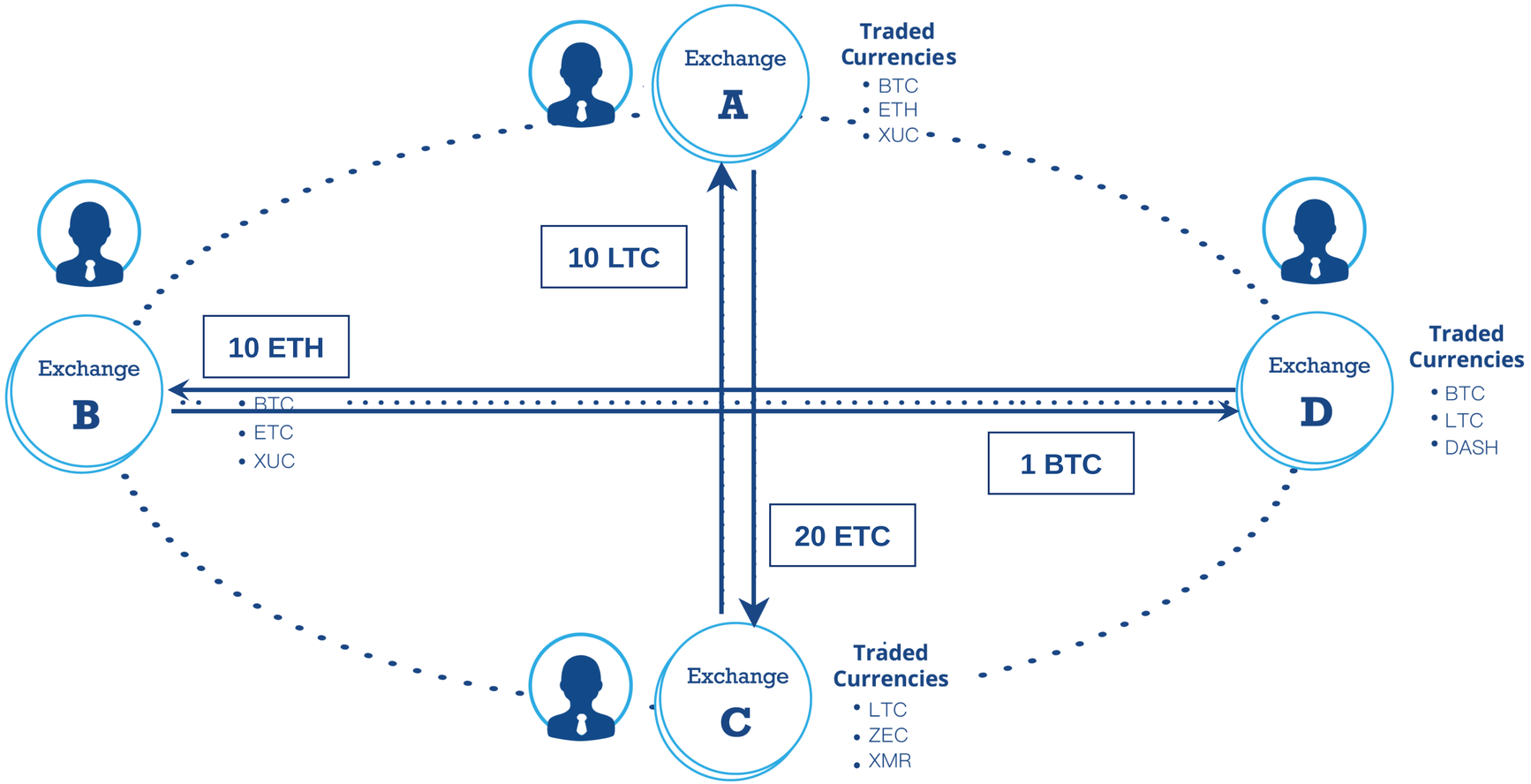

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Who benefits?

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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?

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- 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?

exchange union

XUC

How do we realize this?

exchange union

XUC = Fee & Incentive System

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

Once up and running XUC rewards:

- Anyone: for providing services in the union
  - Relay Order Books
  - Validate Order Books
  - Other payment channel services like 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)

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Use Case

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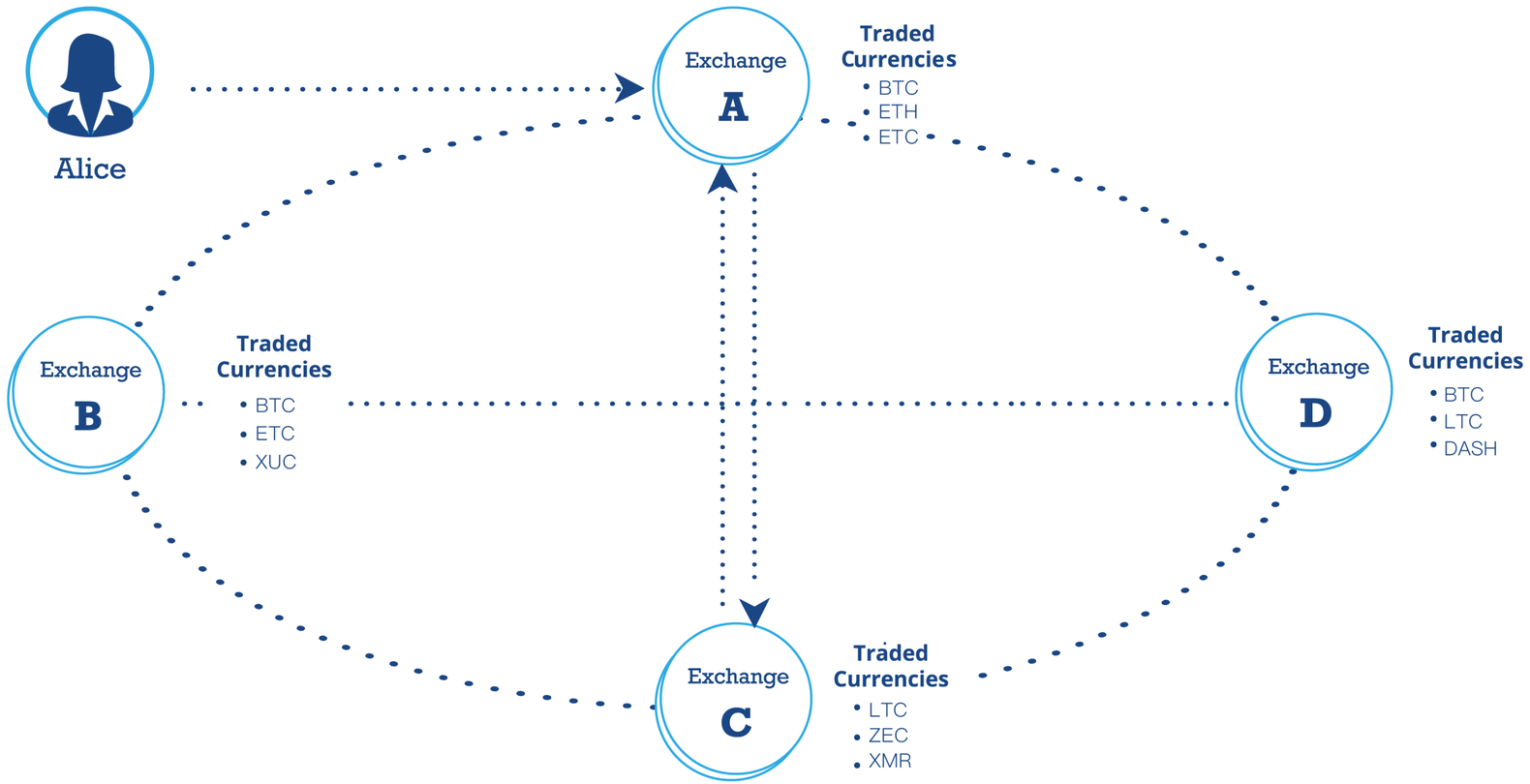
Portfolio		
	Before	After
BTC	2	
LTC	0	
ETC	100	



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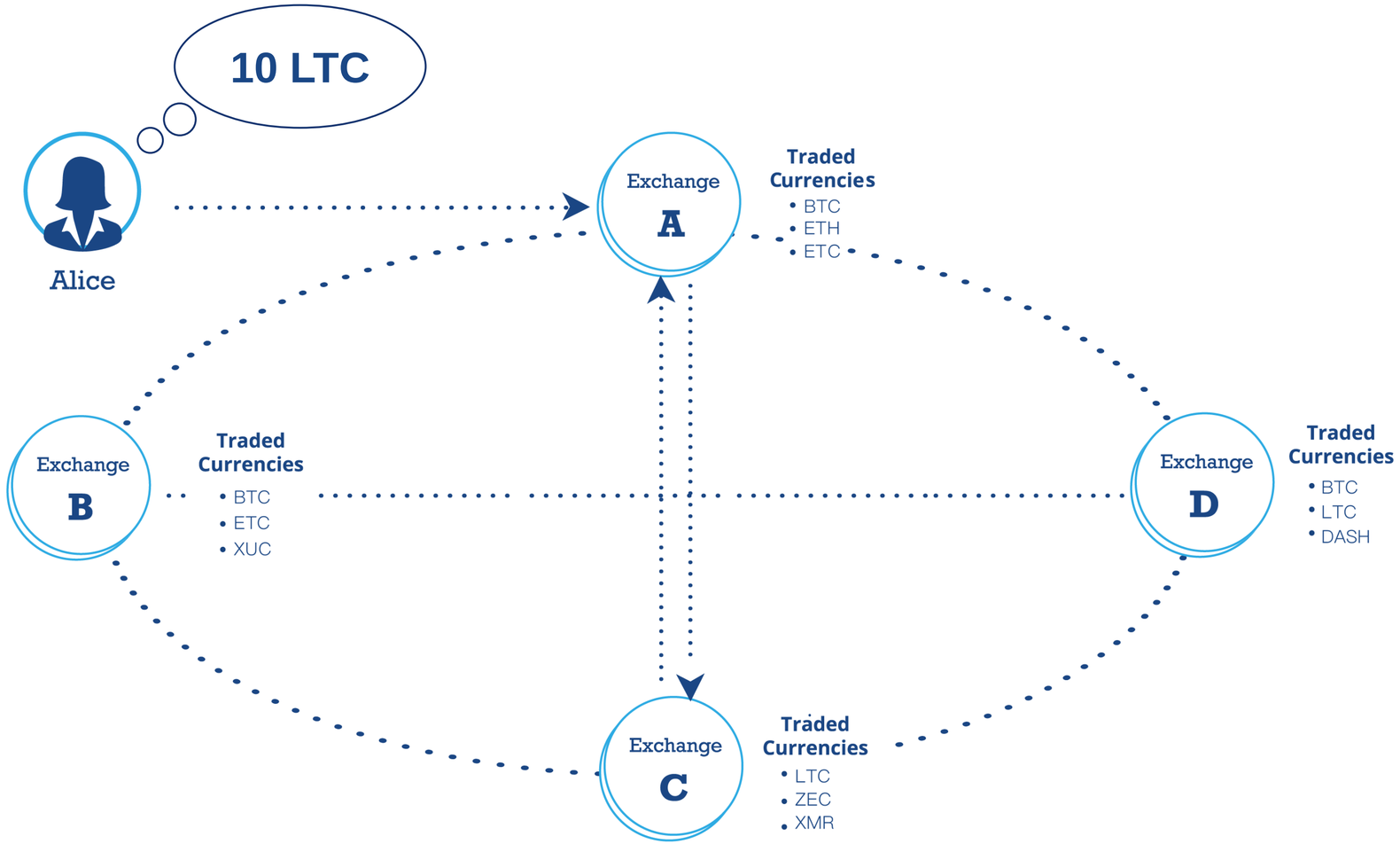

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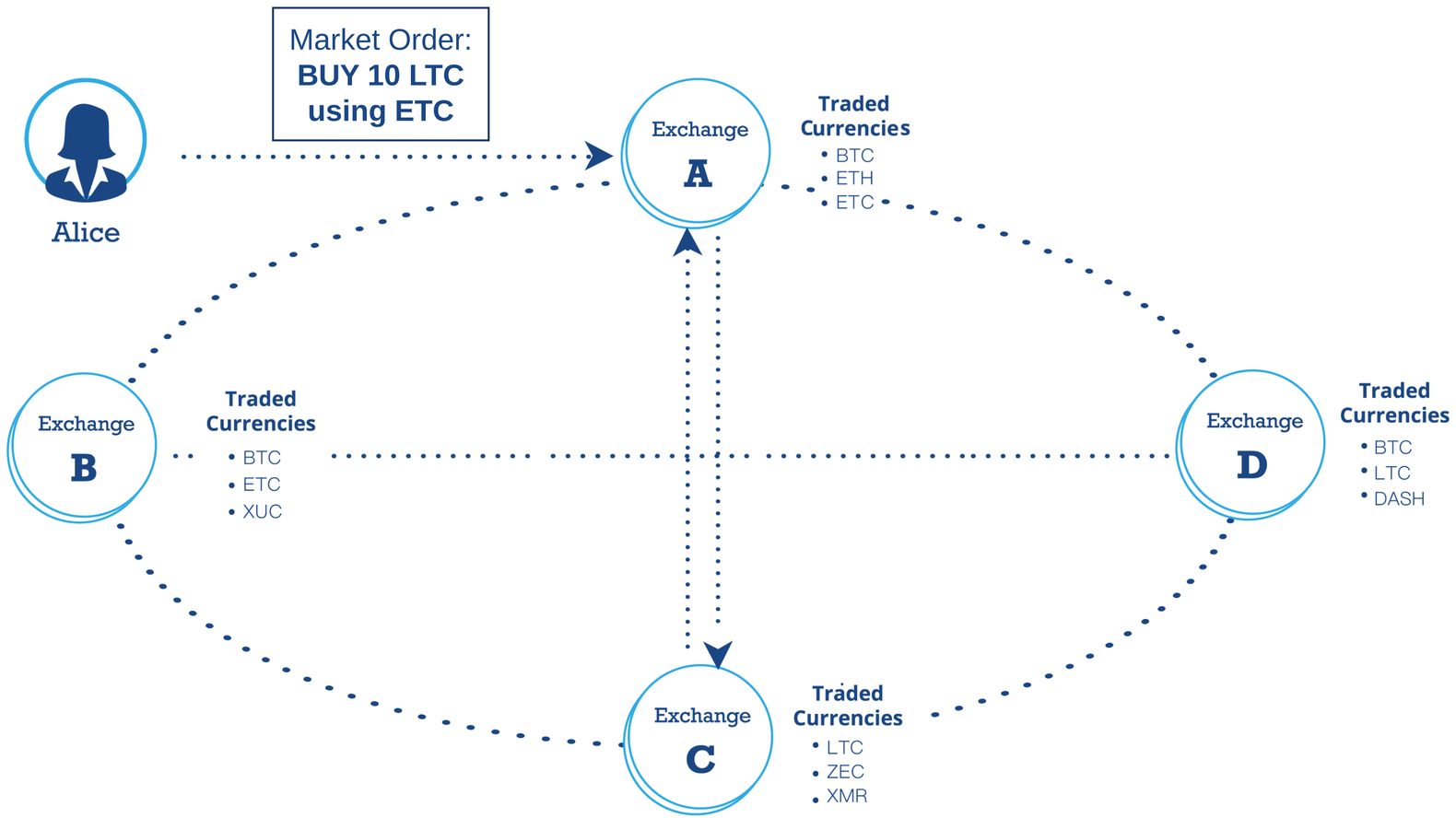

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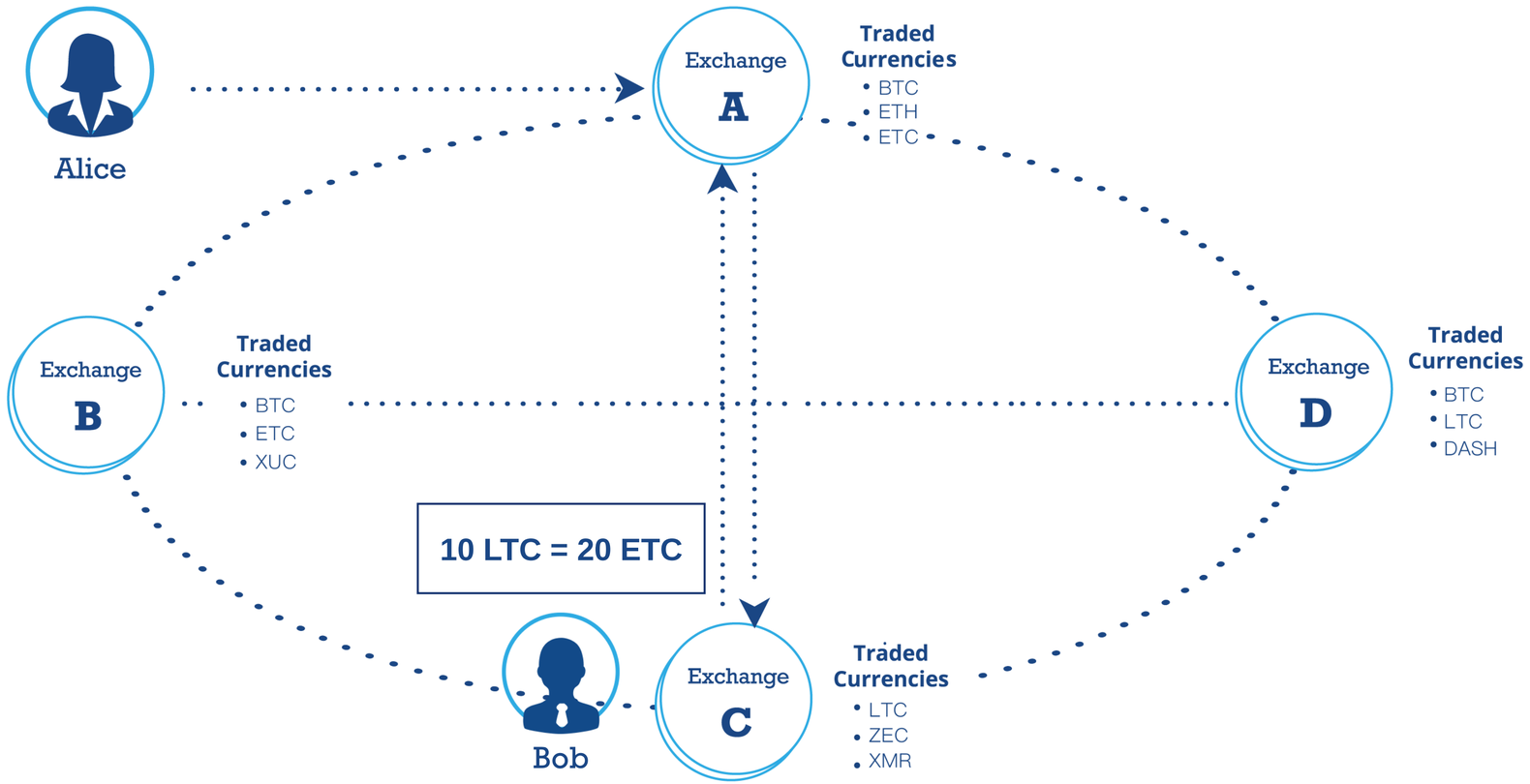

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Portfolio		
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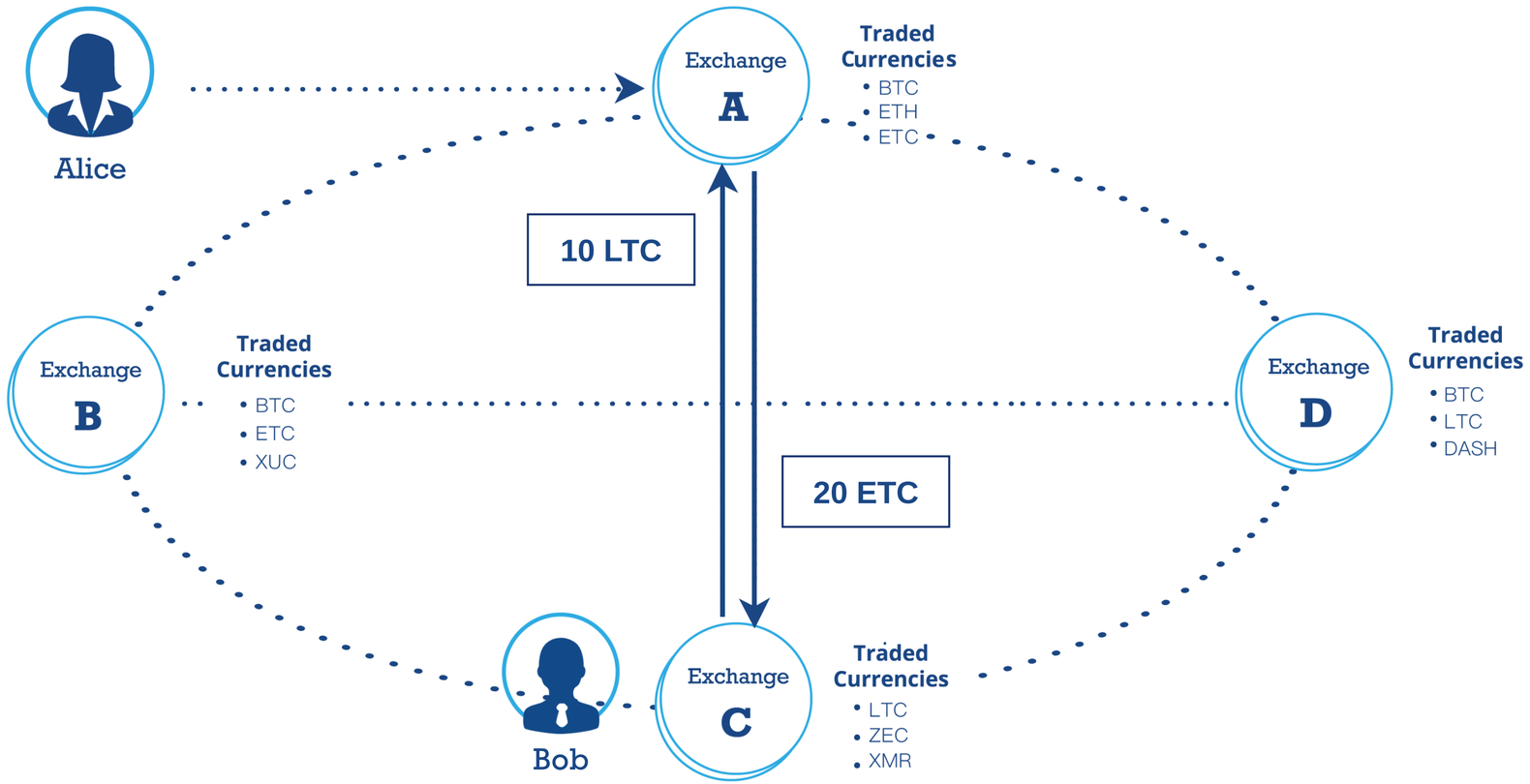
LTC	0	
ETC	100	



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Portfolio		
	Before	After
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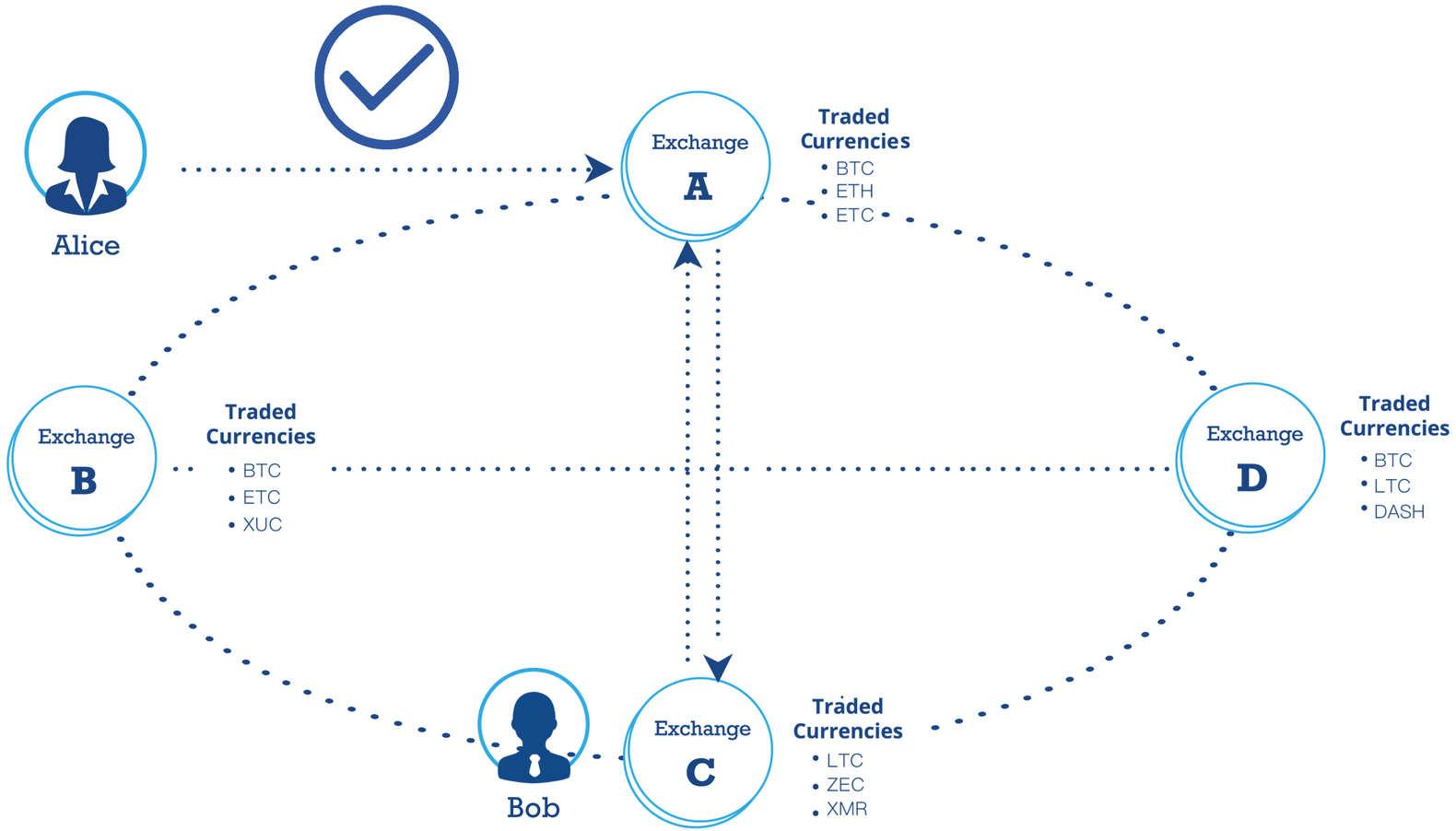
LTC	0	
ETC	100	



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Use Case

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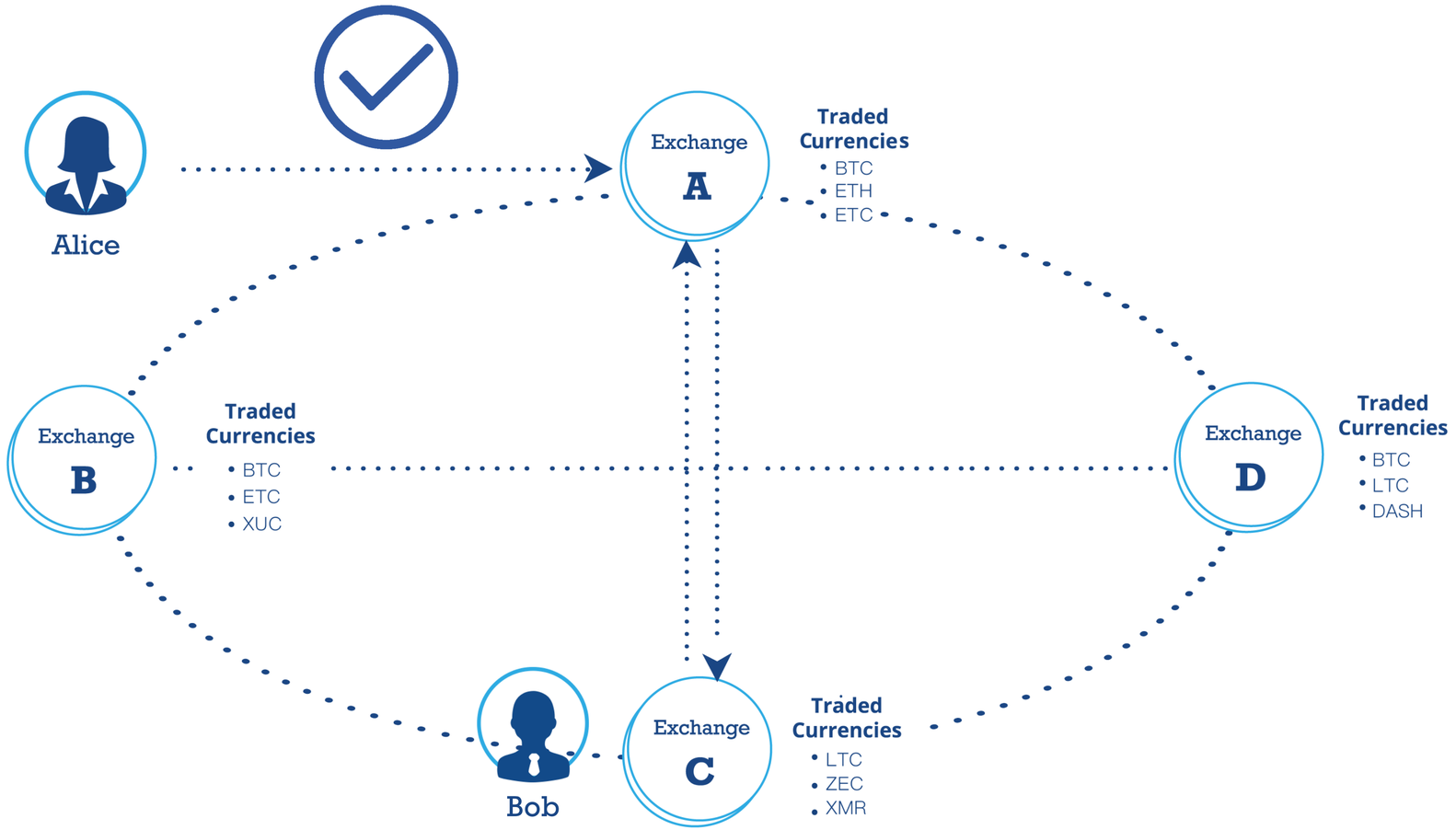
DC BLOCKCHAIN SUMMIT 2018

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



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Technical Architecture

3 Key Technologies

Technical Architecture

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

3 Key Technologies

Technical Architecture

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3 Key Technologies

1. Payment Channels
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

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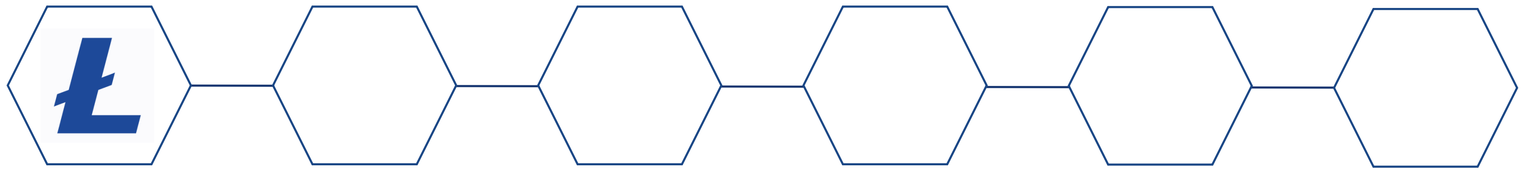


Status Quo

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:

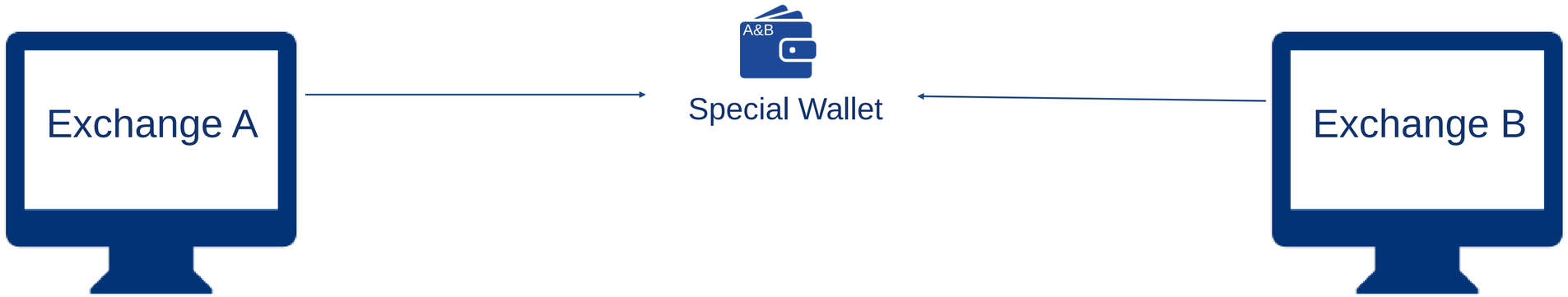
*One use of nLockTime is **high frequency trades** between a set of parties. They can **keep updating a tx** by unanimous agreement. The party giving money would be the first to sign the next version. If one party stops agreeing to changes, then the last state will be recorded at nLockTime.*

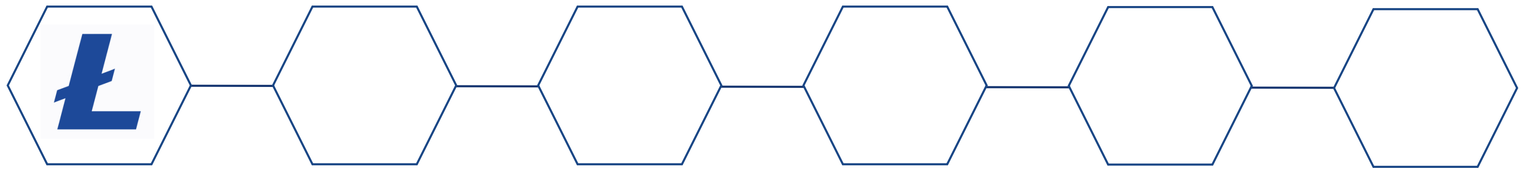
Source: https://lists.linuxfoundation.org/pipermail/bitcoin-dev/2013-April/002417.html

1. Payment Channels

exchange union

High-level:

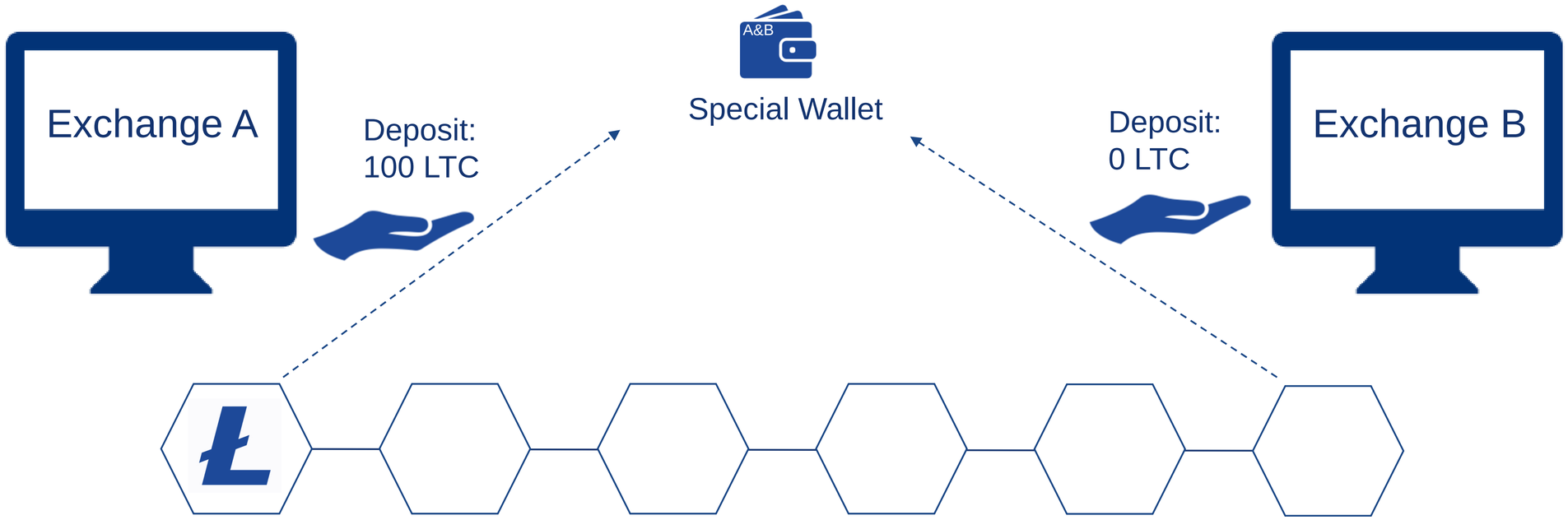




1. Payment Channels

exchange union

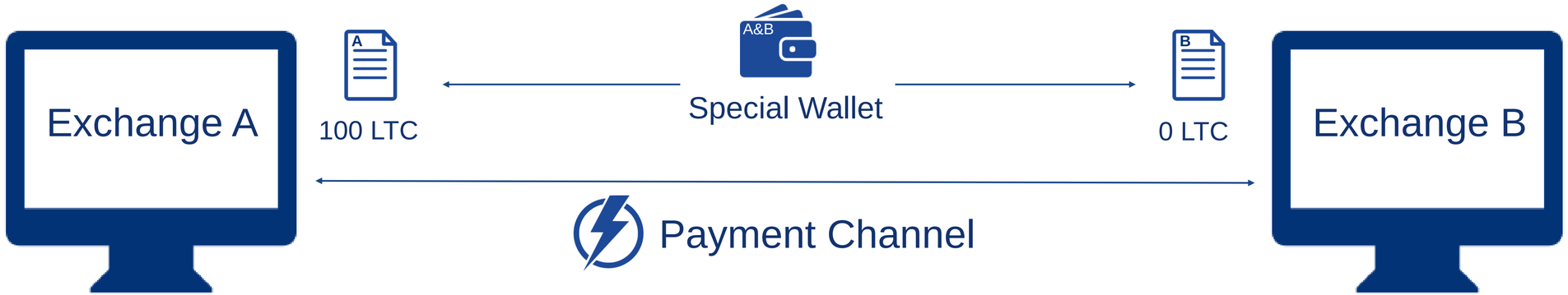
High-level:

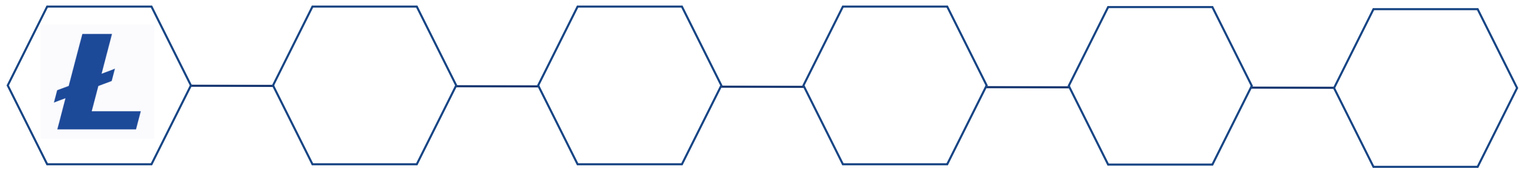


1. Payment Channels

exchange union

High-level:





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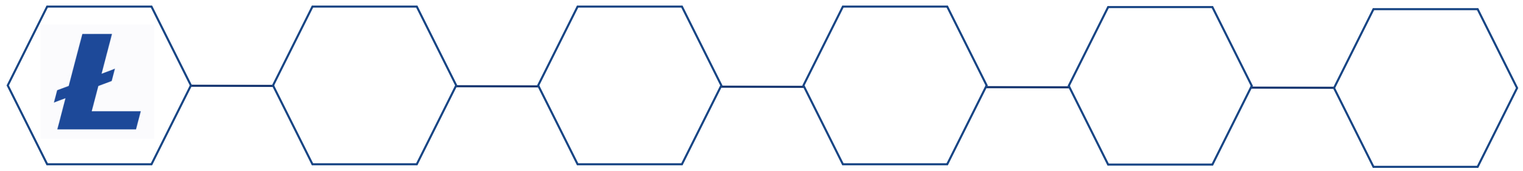
exchange union

High-level:



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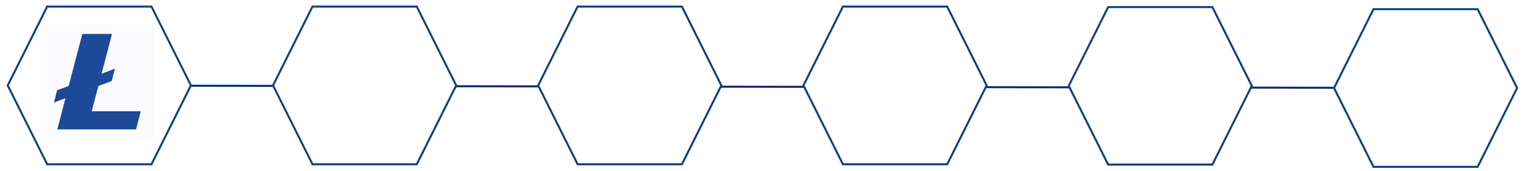
exchange union

High-level:



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1. Payment Channels

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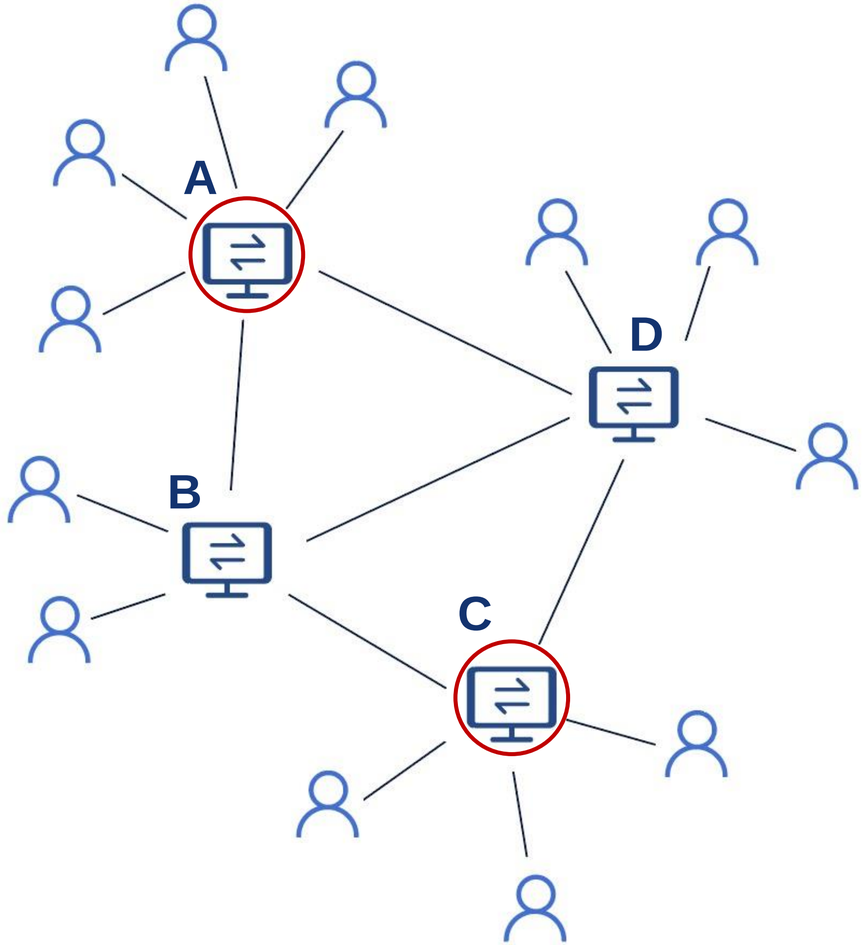
High-level:

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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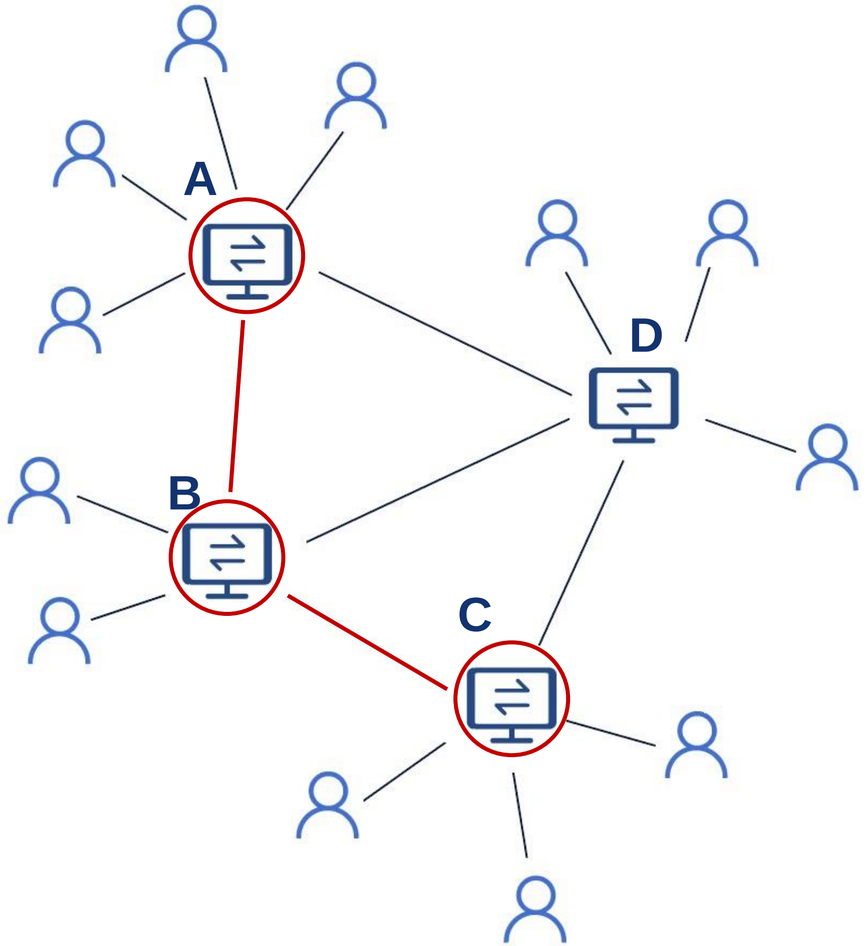

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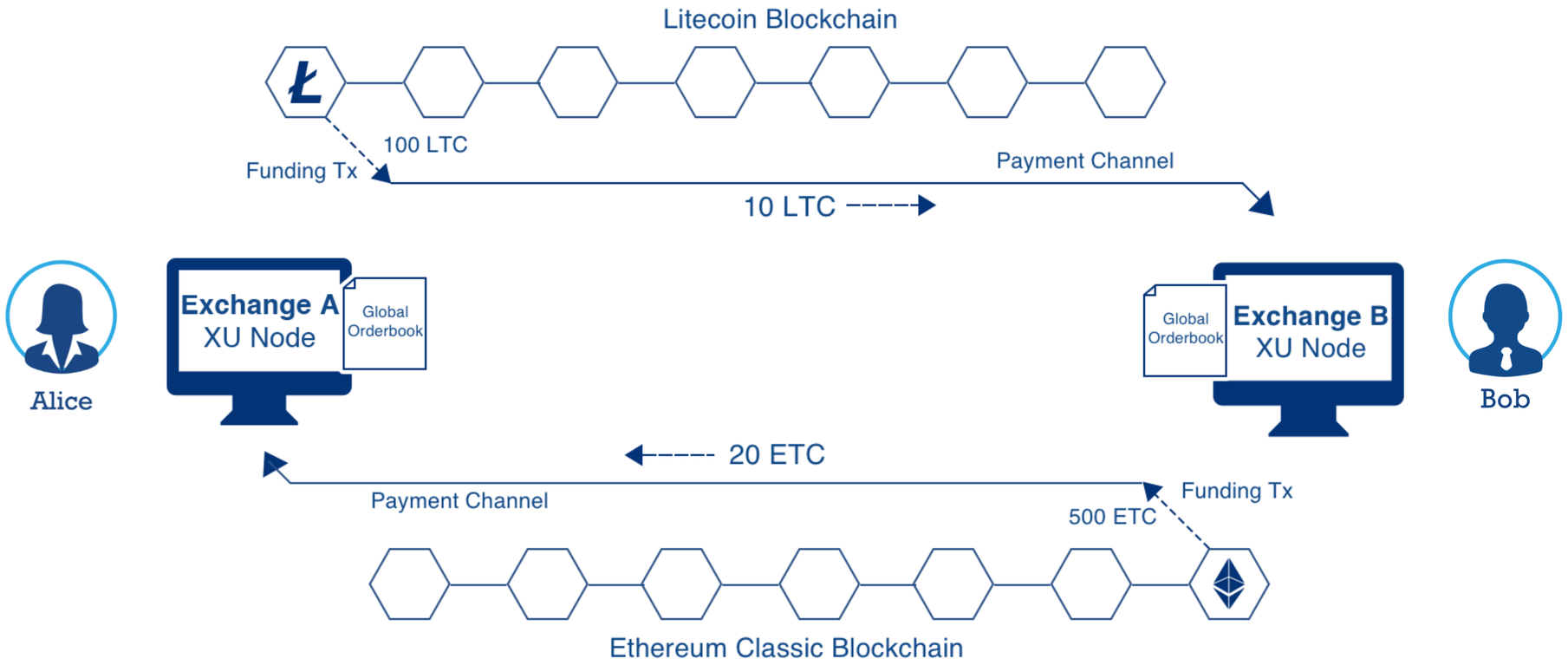

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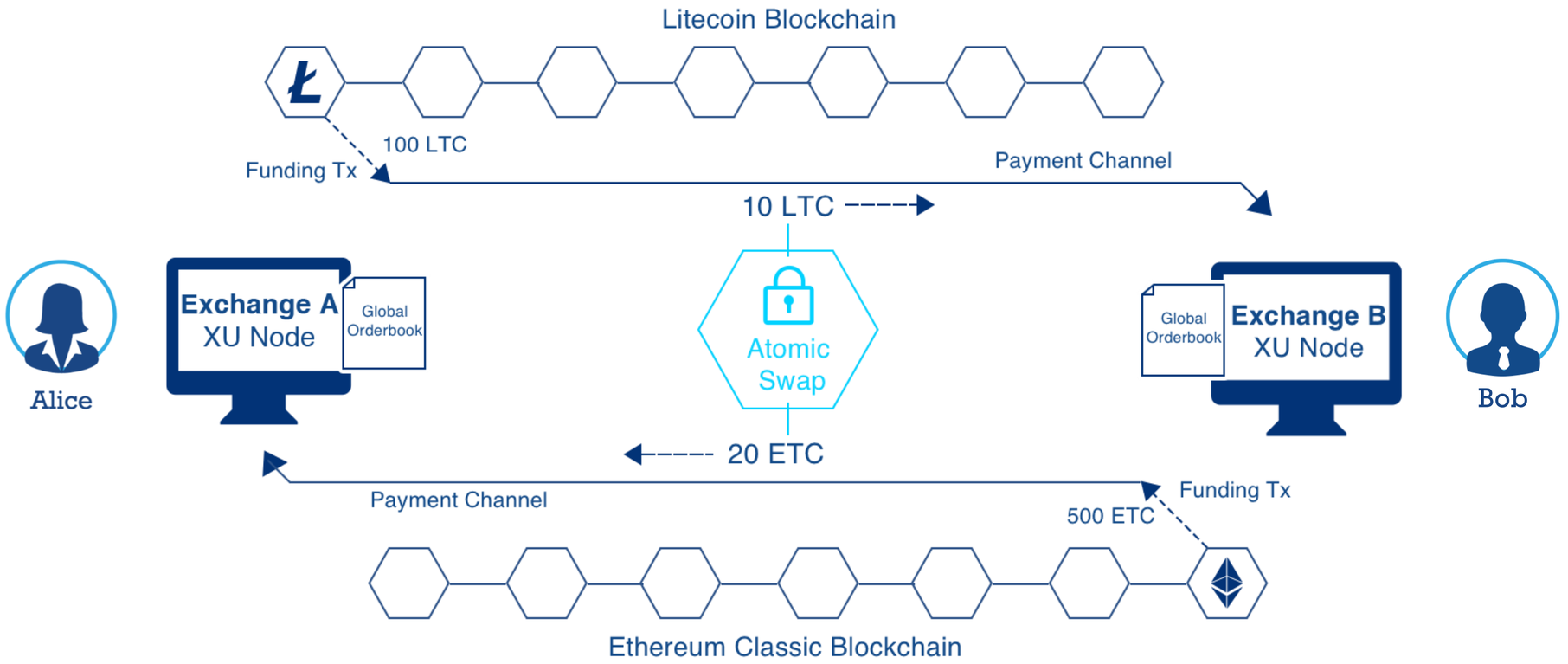

2. Atomic Swaps

- 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)

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3. Decentralized Orderbook

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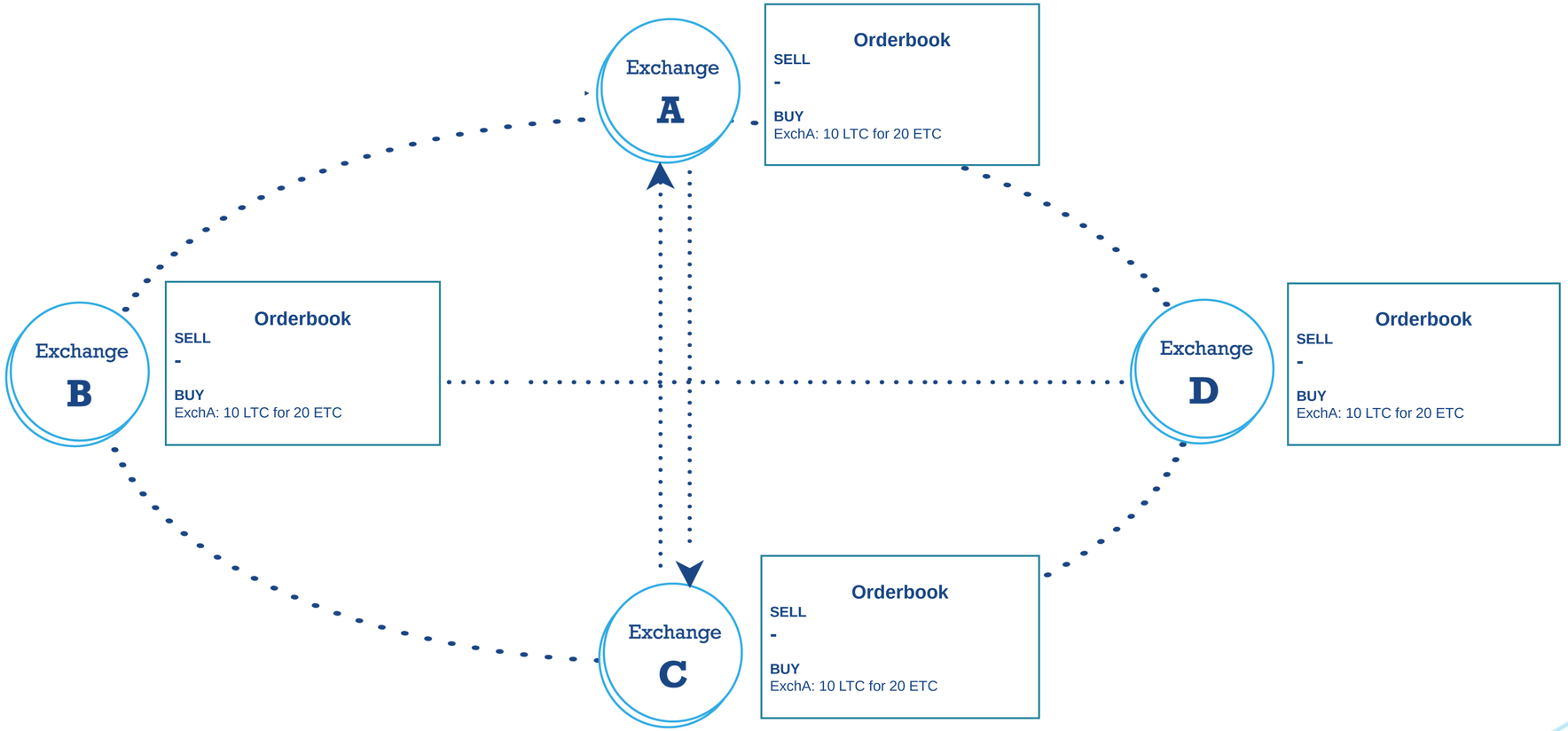

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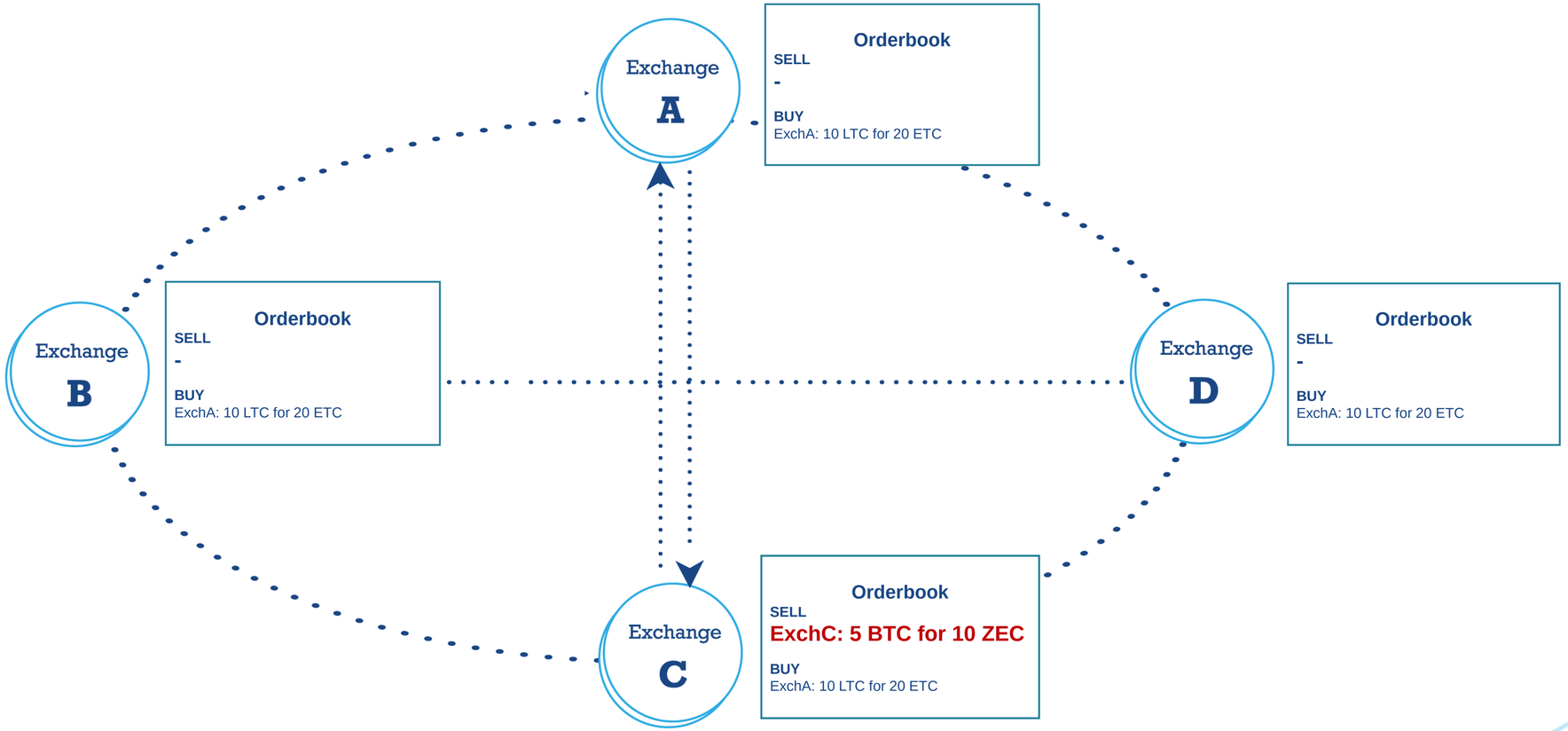

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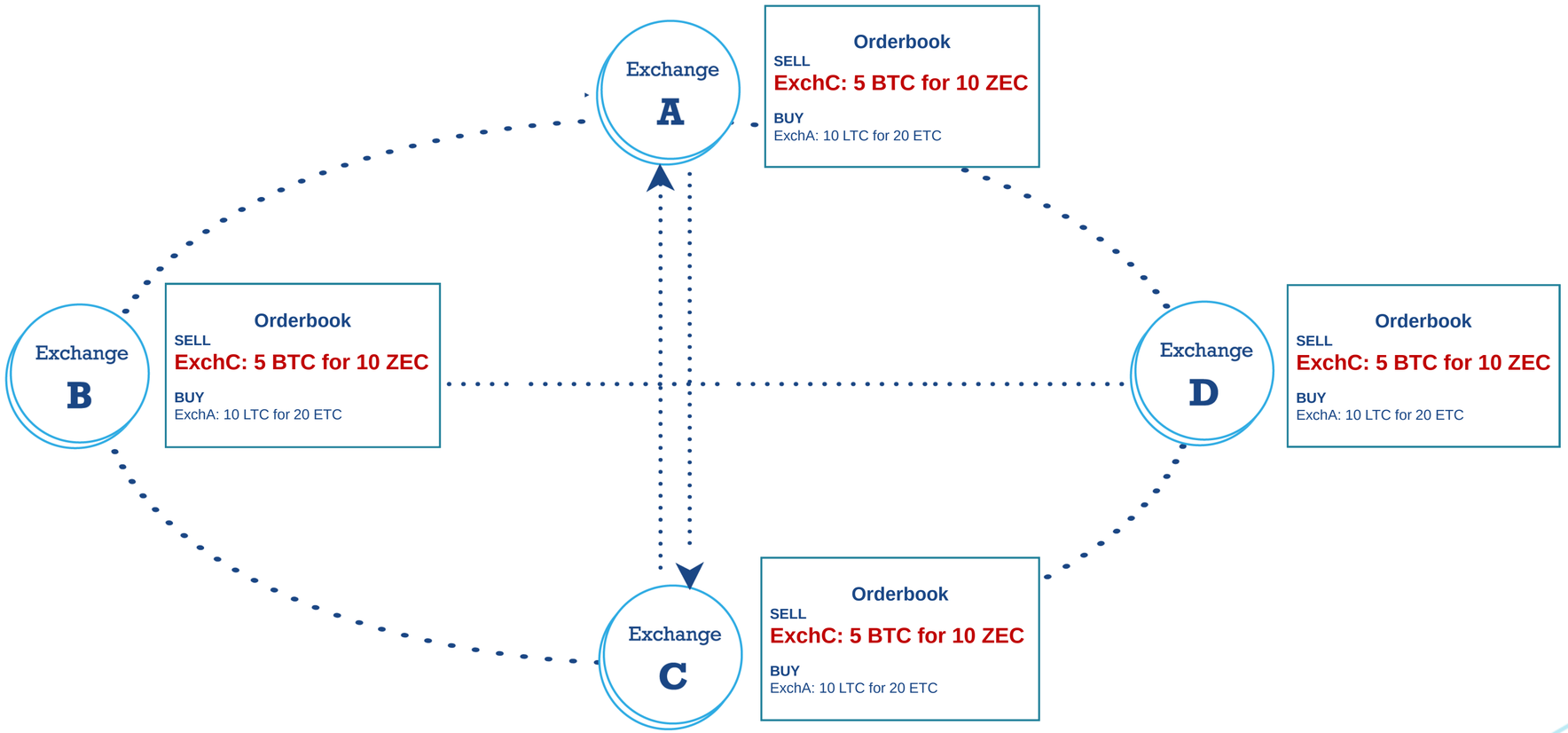

3. Decentralized Orderbook

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

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

Summary

Decentralized & Open Source

Technology:

- 1. Payment Channels
- 2. Atomic Swaps
- 3. Decentralized Order Books

Benefits:

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

XUC is both a fee and an incentive system

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Where are we?

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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

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Outlook

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Exchange Union is public infrastructure

Enables entire new products:

- Wallets
- Merchant PoS

Promotes financial inclusion

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