Tapping into Alkemi's Decentralized Liquidity Pools

Diffusion
2019

Diffusion Dev Con, Berlin, October 2019

Alkemi's non-custodial infrastructure solves the problem of crypto asset market inefficiencies by driving price efficient liquidity and streamlining settlement.

Raynaldo (Royal) Rivera

Director, Engineering

- Lives in San Francisco
- Works in Network Security
- Expertise in Security, Quant Trading Systems, Cryptography

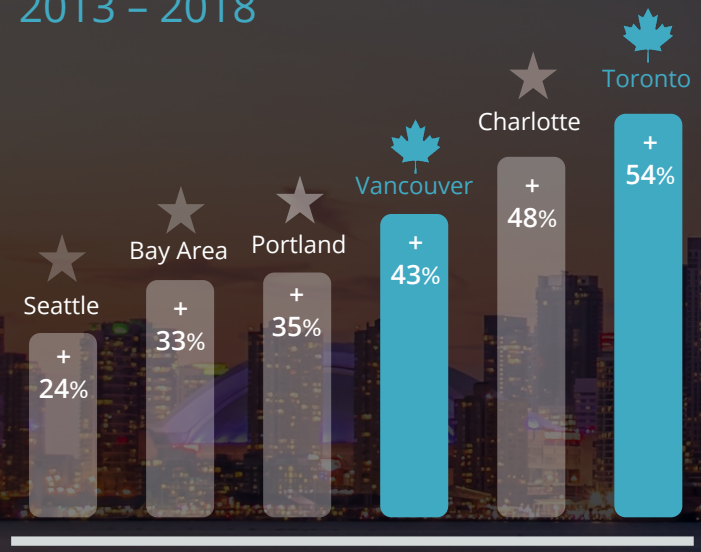
Alim Khamisa

Director, Strategy & Operations

- Lives in Toronto
- Teaches in the Blockchain Development Program at George Brown College
- Co-Founder of **#DeFiToronto**

Canada's Tech Startup Ecosystem Ranks 3rd in the World

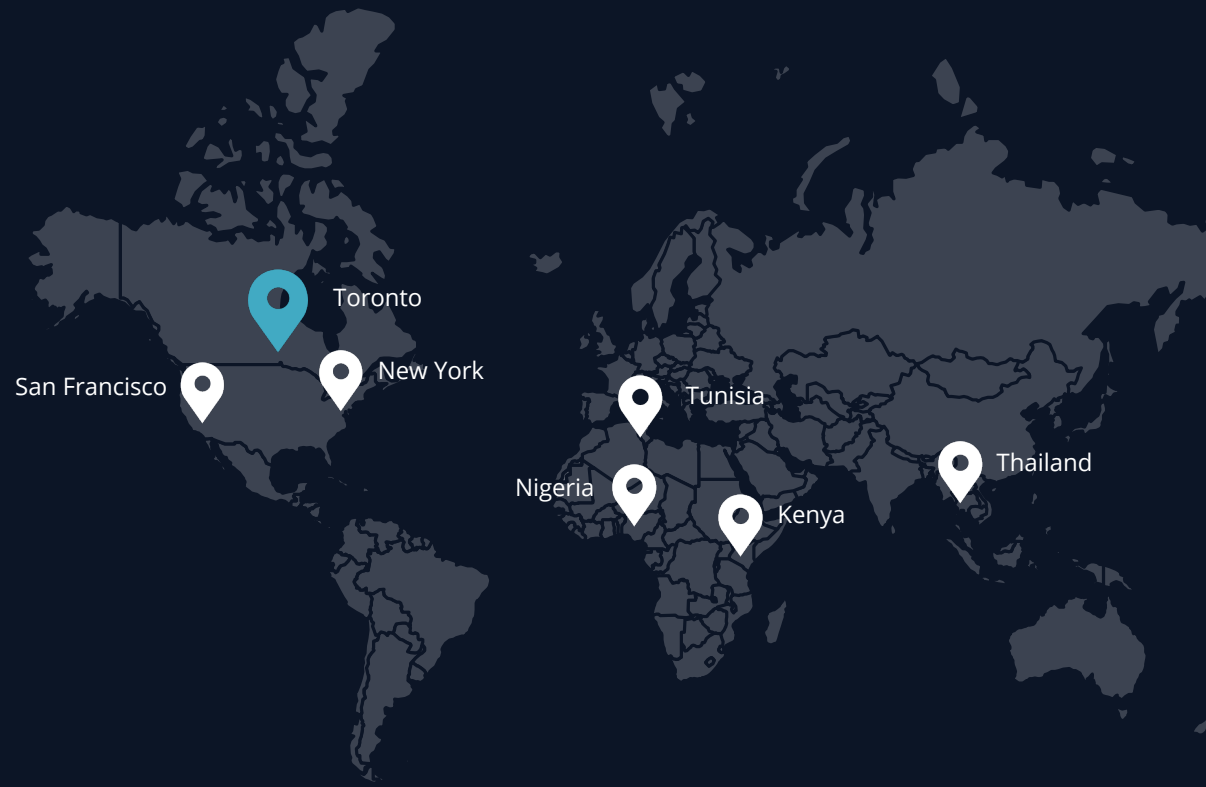
Tech Industry Job Growth*
2013 – 2018



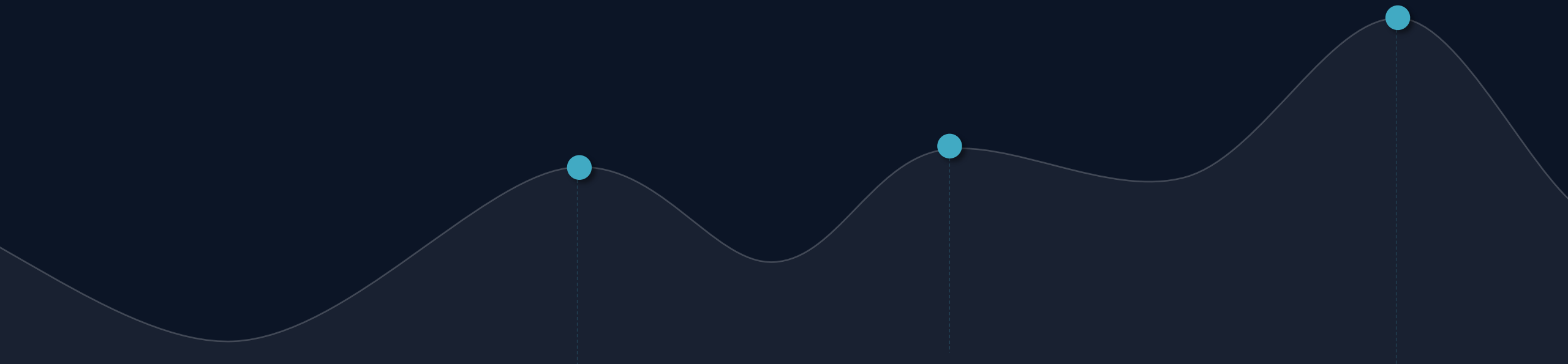
Toronto is the fastest growing Tech Market in North America

*Tech Talend Markets with >50,000 Labour Pool; Source: CBRE

ALKEMI HQ in Toronto but with a Global Team



FUNDAMENTALS OF
LIQUIDITY



Liquidity Defined

“Liquidity describes the degree to which an asset or security can be **quickly** bought or sold in the market without affecting the asset's price.”
- Investopedia

“Market liquidity refers to the extent to which a market, such as a country's stock market or a city's real estate market, allows assets to be bought and sold at **stable prices**.”
- Investopedia

Liquidity is ephemeral — it can come and go, and increase or decrease based on market forces.

Importance of Liquidity for Crypto Assets

01 DeFi apps and will not be widely adopted unless they have adequate liquidity to support economic activity on their platforms.

02 Higher liquidity enables better price discovery and better market stability; this also helps to reduce large swings in price created by large trades.

03 Market makers help to create more liquidity and by doing so stabilize spreads and reduce the matching time of orders

04 Factors that affect market liquidity: trading volume, order book depth, and the bid-ask spread

Importance of Liquidity for DeFi

EXAMPLE – LET'S THINK ABOUT HOW A MAJOR PRICE SWING (i.e., ETH $200 to $100) AFFECTS DEFI PRODUCTS.

Most DeFi products need two things: (i) an Oracle for price feed, and (ii) Liquidity in DEXs.

Products like dYdX, Nuo (that allow trading on margin) rely on oracles and DEXs to settle trades on their platforms. When price swings are rapid, liquidity in DEXs decline as multiple projects (e.g.: Compound, Dharma, Nuo, etc.) look to liquidate their users.

This has two effects:

1. Market inefficiency in terms of how orders are liquidated. A margin trader could be liquidated well before her liquidation price because the smart contract looks at the order book depth to decide.
2. Spiraling down of ETH

Liquidity Models

Networked liquidity

- Protocol that allows ‘Relayers’ to create DEXs on a public system of smart contracts
- Protocol creates an underlying pool of networked liquidity for all Relayers to draw upon

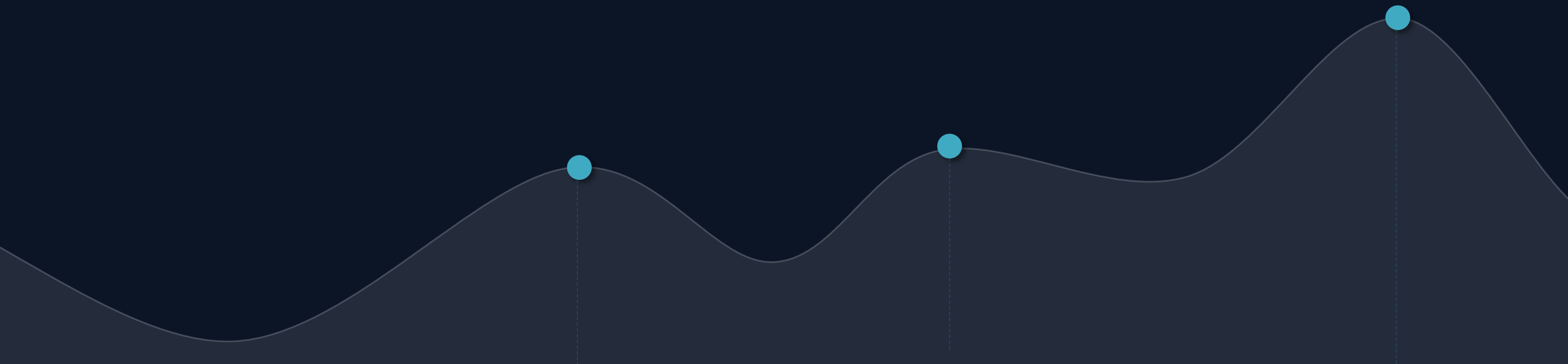
0x

Pooled liquidity

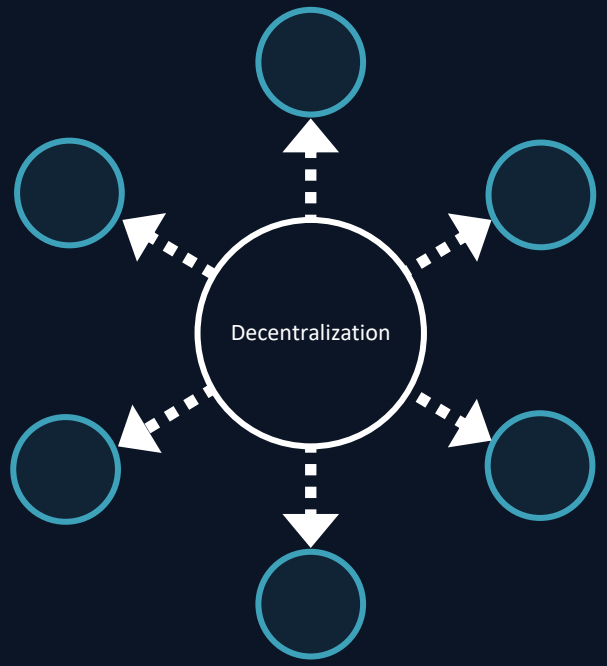
- Liquidity is aggregated from market makers into a single common ‘pool’
- Liquidity is facilitated via a reserve manager or incentivized at protocol level

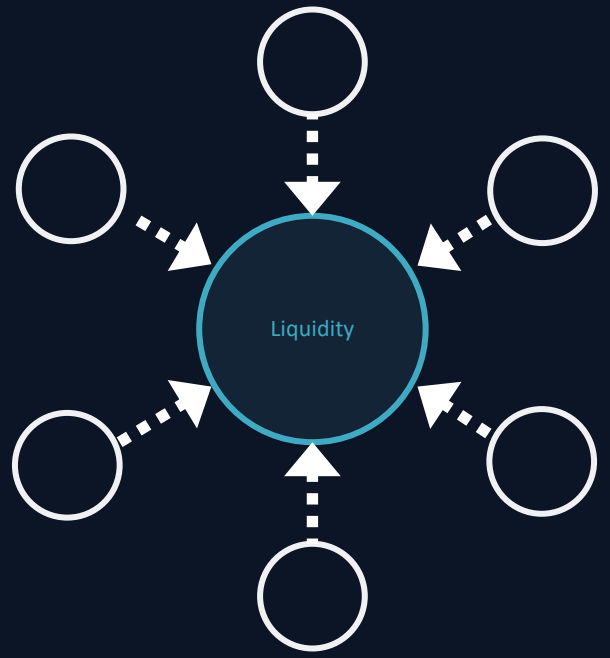
kyber network Bancor Uniswap

LIQUIDITY AND
ON-CHAIN SETTLEMENT



Alkemi is solving the Decentralized Liquidity Paradox



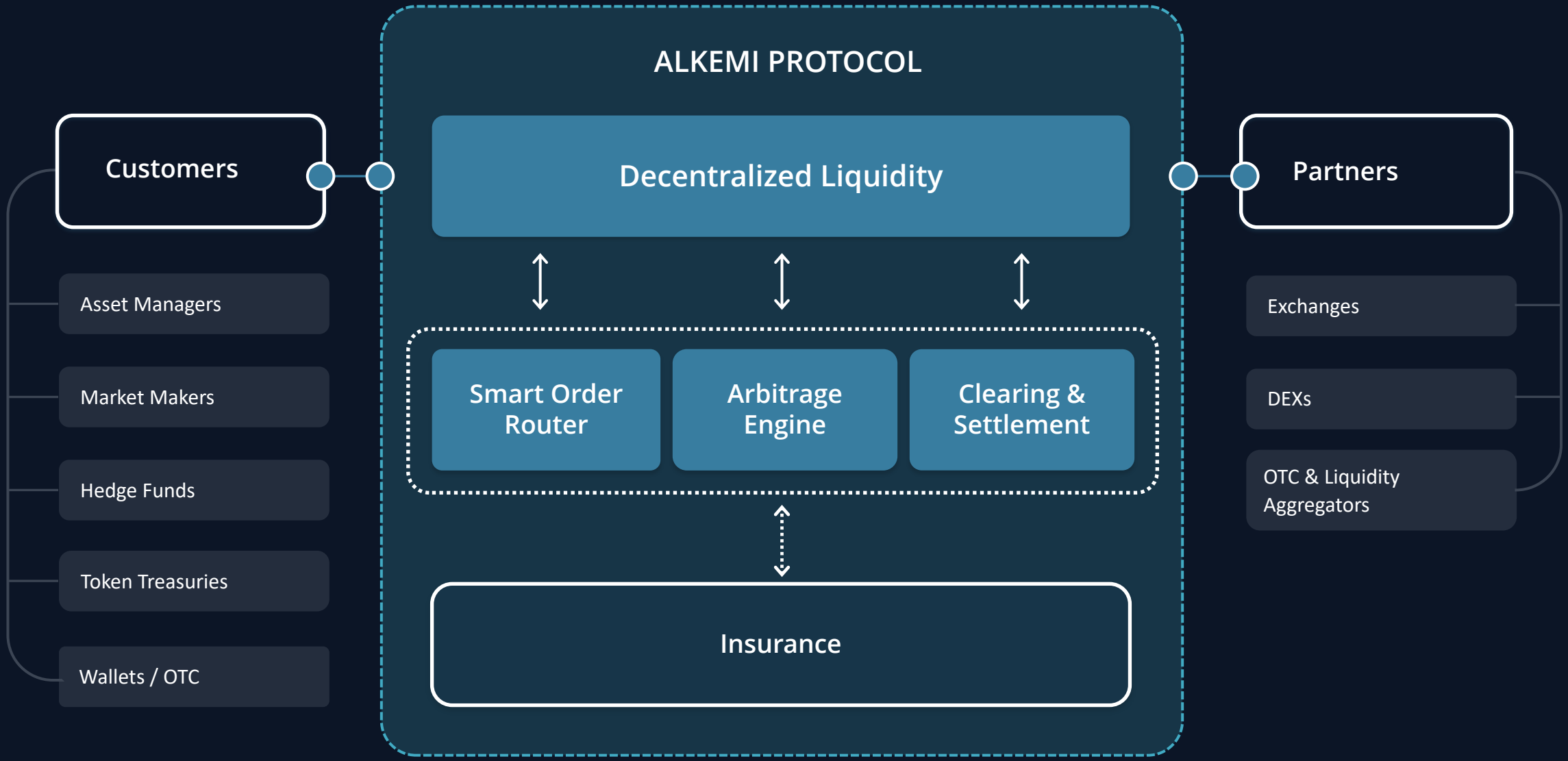


DECENTRALIZED SERVICES LACK LIQUIDITY — BUT WHY?

Decentralization and liquidity taken together form a paradox: decentralization works to separate wealth and information, while liquidity requires the concentration of it.

Liquidity Reserves

By incentivizing liquidity holders to deposit their crypto assets into **their own smart contract reserves**, a new source of on-demand liquidity is created, **without taking custody**.


ALKEMI PROTOCOL
Customers
Asset Managers
Market Makers
Hedge Funds
Token Treasuries
Wallets / OTC
Decentralized Liquidity
Smart Order Router
Arbitrage Engine
Clearing & Settlement
Insurance
Partners
Exchanges
DEXs
OTC & Liquidity Aggregators