



# SmartCon 2023

**Manipulated Systems vs User Controlled Systems**

**+**

**Unverifiable Misinformation vs Verifiable Cryptographic Truth**

**=**

**Reactive “Fixes” vs Proactive Decisions**

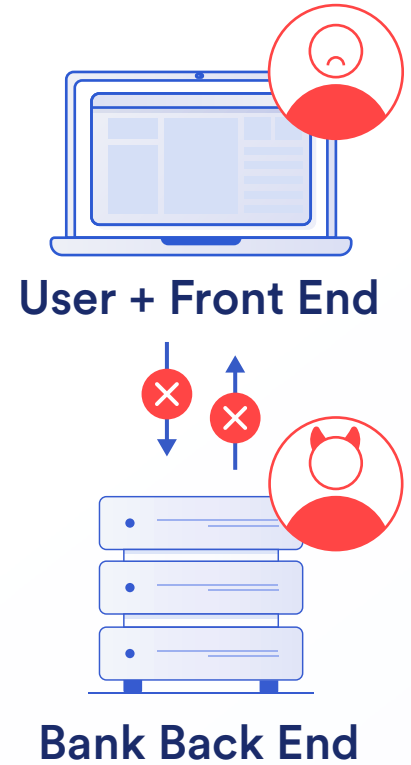
# The Verifiable Web Offers Three Key Improvements

**Know what you're getting into** because you can **proactively verify** everything about a system before entering into it, knowing it can't change.

**Know what is going on** by utilizing **verifiable cryptographic truth** to avoid misinformation and know what is actually going on in the system you're in.

**Proactively decide** on whether you should leave the system, because it's a **user controlled system** that clearly defines how you can leave the system.

# Manipulation of Financial Products and Entire Markets Effects All of Us



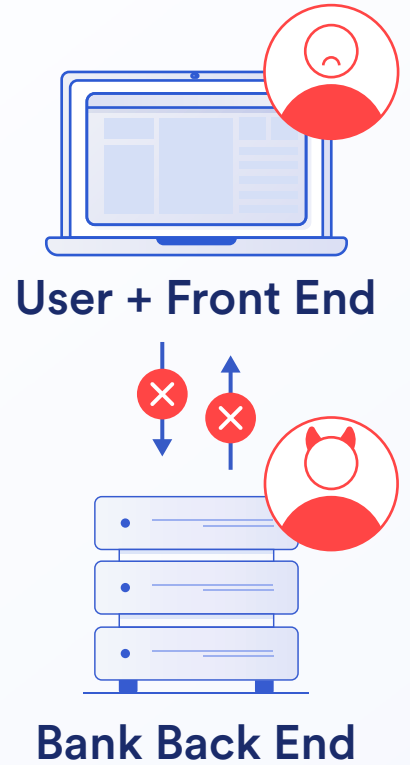
**The New York Times**

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**Business** Jan. 15, 2002

***ENRON'S COLLAPSE: THE AUDITORS; Who's Keeping the Accountants Accountable?***

**\$63.4 Billion**  
VALUE IN BANKRUPTCY



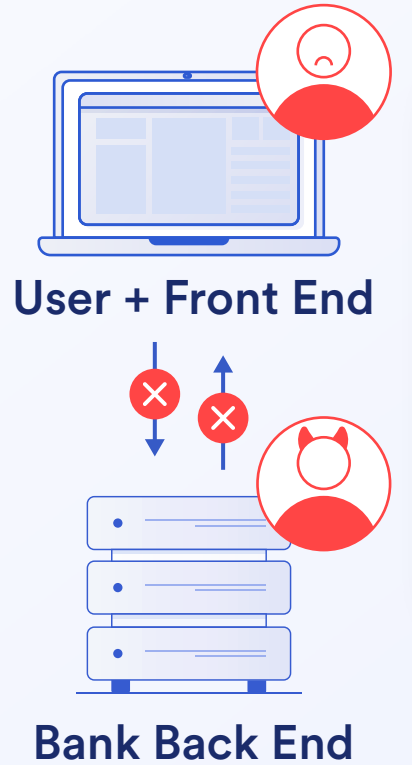
**THE TIMES**

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**Economics** Sept. 16, 2008

**Lehman Brothers collapse sends shockwave round world**

**\$619 Billion**  
VALUE IN BANKRUPTCY



**CNBC**

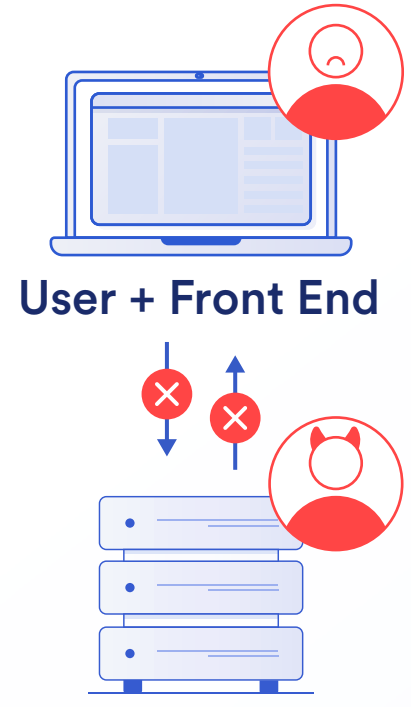
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**Finance** Mar. 10, 2023

**Here's how the second-biggest bank collapse in U.S. history happened in just 48 hours**

**\$209 Billion**  
VALUE IN BANKRUPTCY

# Manipulation of Financial Products and Entire Markets Affects All of Us

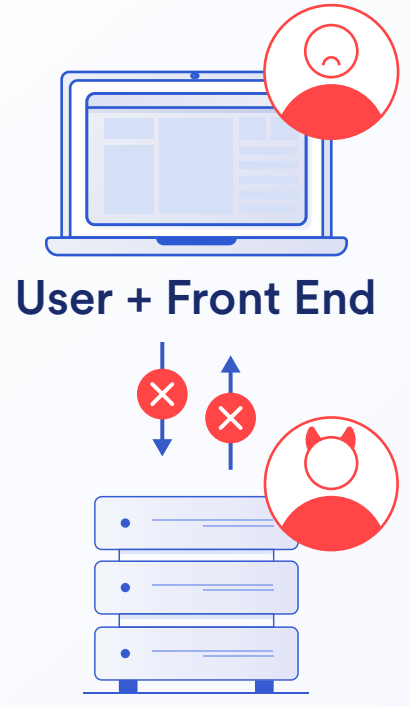


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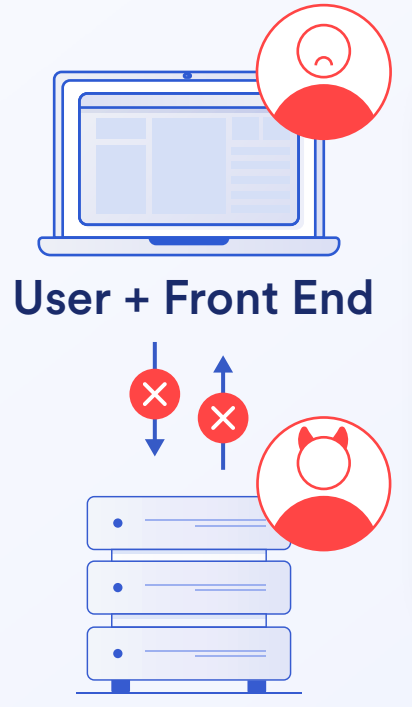


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User Controlled Frontends

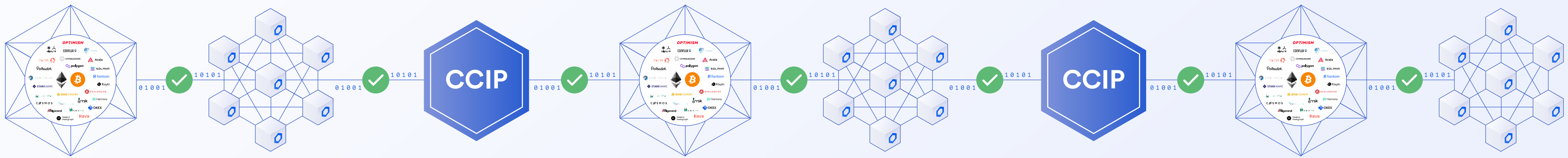


User Controlled Frontends



User Controlled Frontends

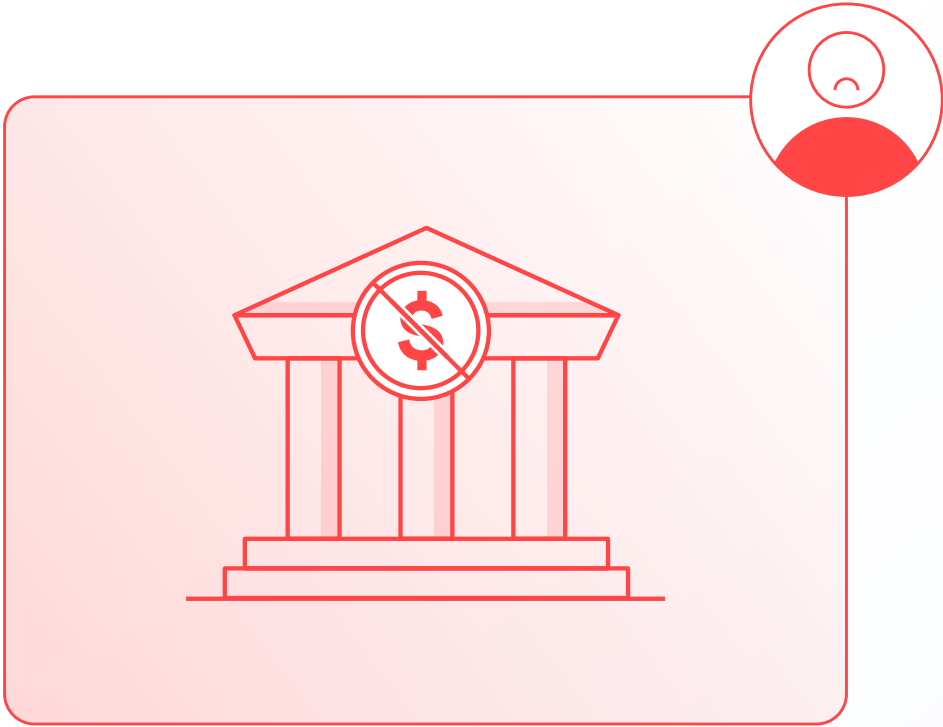
Verifiable Apps on Blockchains & Oracle Networks



Verifiable Apps on Blockchains & Oracle Networks



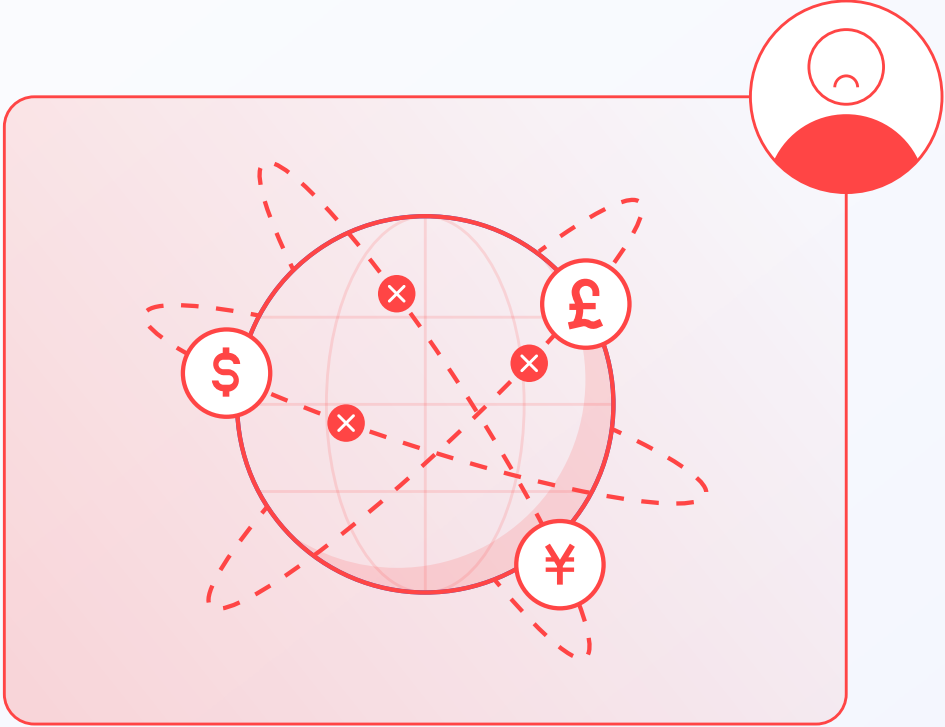
# Better Alternatives for Developing Economies



No Bank Account



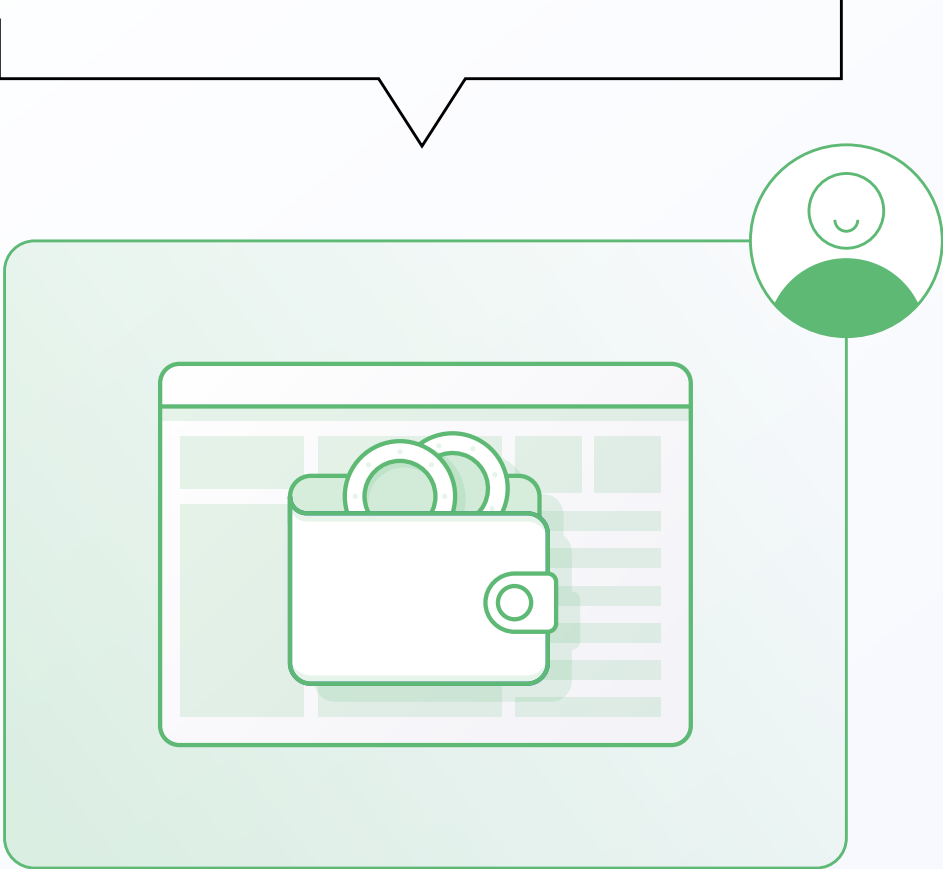
No Insurance for Risk Management



No Global Supply Chain Access to Sell Globally



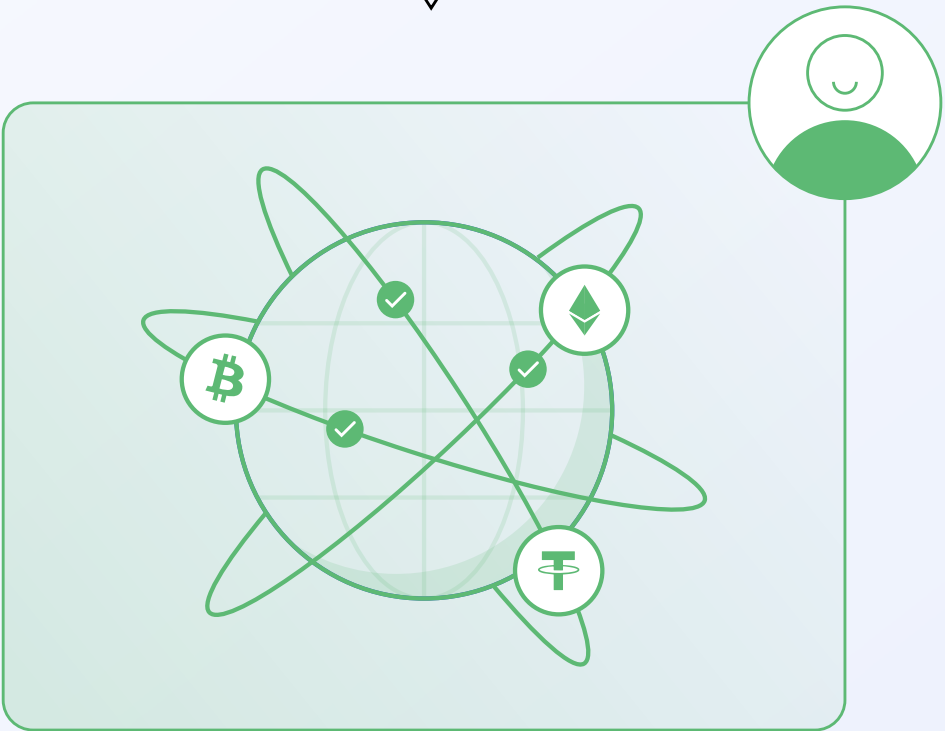
Limited Direct Investment



Coin Bank Account



Smart Contract Insurance For Risk Management



Global Supply Chain Access to Sell Globally



Direct Investment Possible Due to Smart Contracts

# Distrust of News and All Information by the Public is at An All Time High



2023 Digital News Report Jun. 14, 2023

“Across markets, **well over half (56%)** say they worry about identifying the difference **between what is real and fake on the internet when it comes to news** – up 2 percentage points on last year. Much of the public is **skeptical of the algorithms used to select what they see via search engines, social media, and other platforms.**”

## FORTUNE

Politics Feb. 15, 2023

**Trust in media is so low that half of Americans now believe that news organizations deliberately mislead them**

“52% disagreed with a statement that disseminators of national news “care about the best interests of their readers, viewers and listeners,” the study found. It said **23% of respondents believed the journalists were acting in the public’s best interests.**”



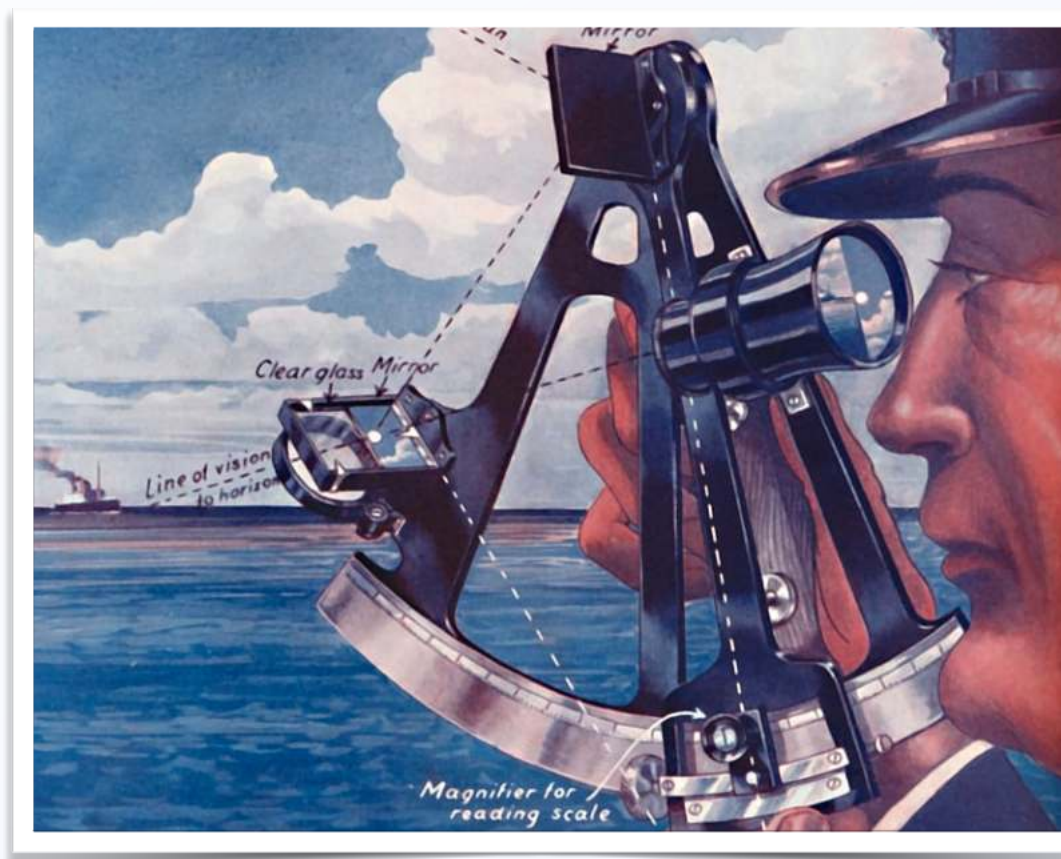
**Trust slumps in government and media as division rules, Edelman survey shows**



# Cryptographic Truth Creates a Verifiable Web



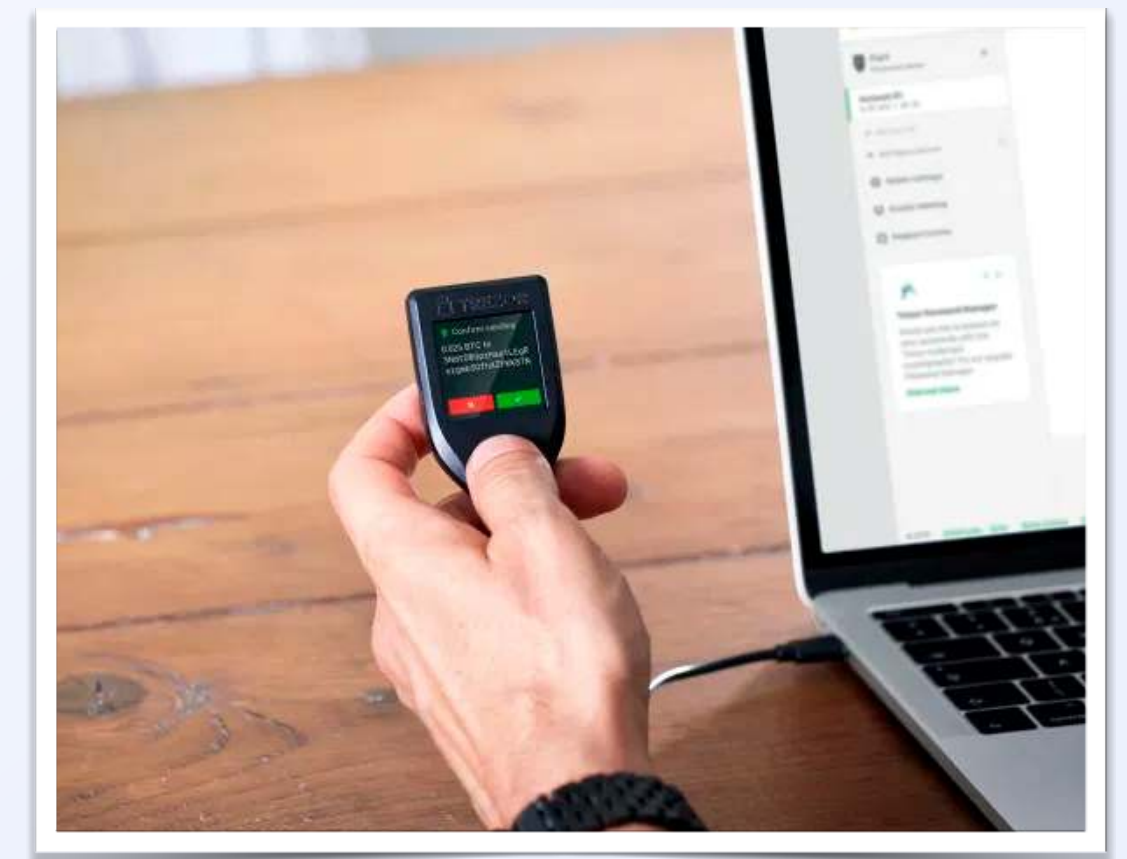
Mythical into Religious Truth



Measurable into Scientific Truth



Printed into Digital Truth



Computational into Cryptographic Truth



# 10.3+ Billion

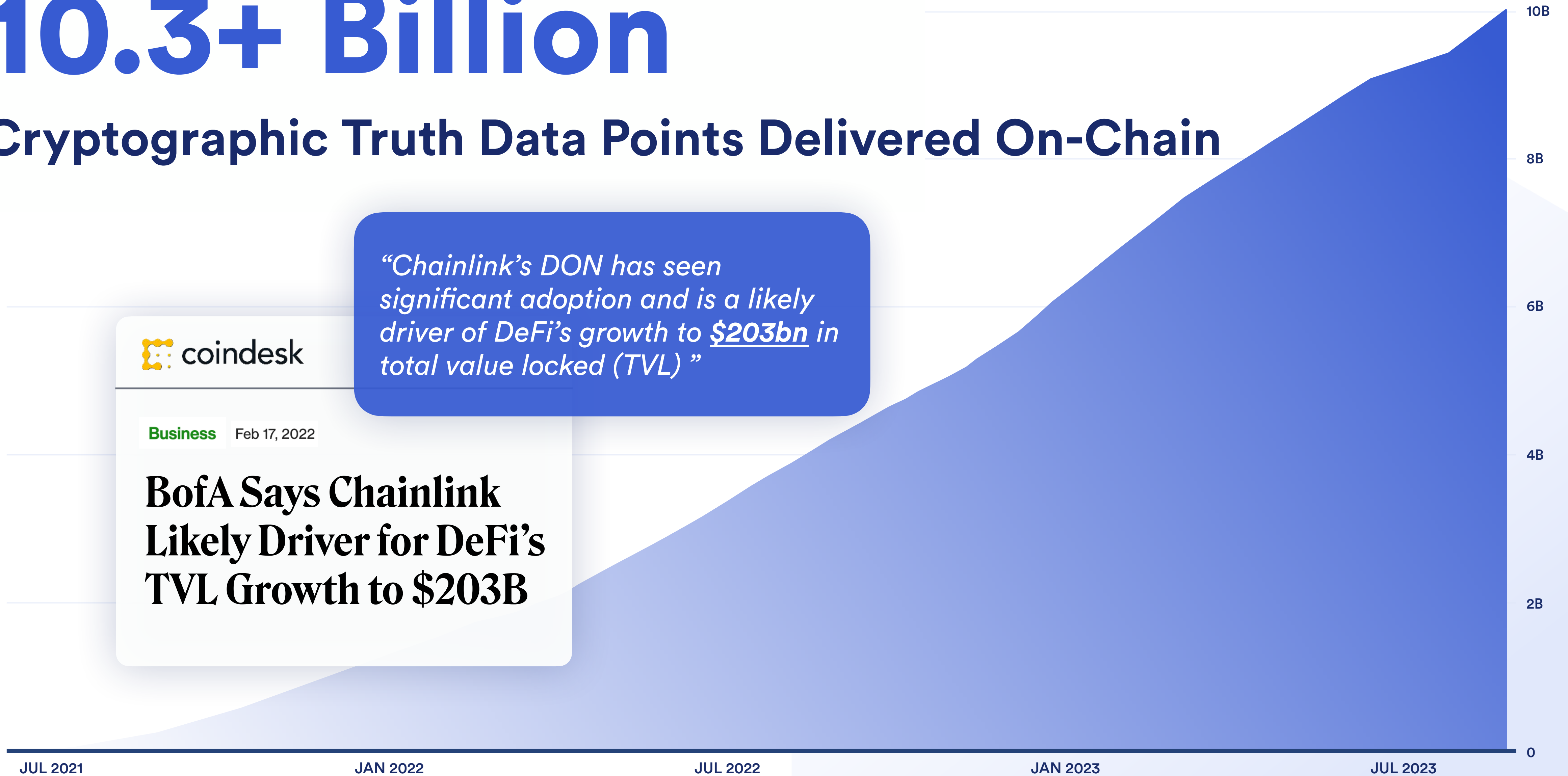
## Cryptographic Truth Data Points Delivered On-Chain

*“Chainlink’s DON has seen significant adoption and is a likely driver of DeFi’s growth to \$203bn in total value locked (TVL)”*



Business Feb 17, 2022

**BofA Says Chainlink  
Likely Driver for DeFi’s  
TVL Growth to \$203B**



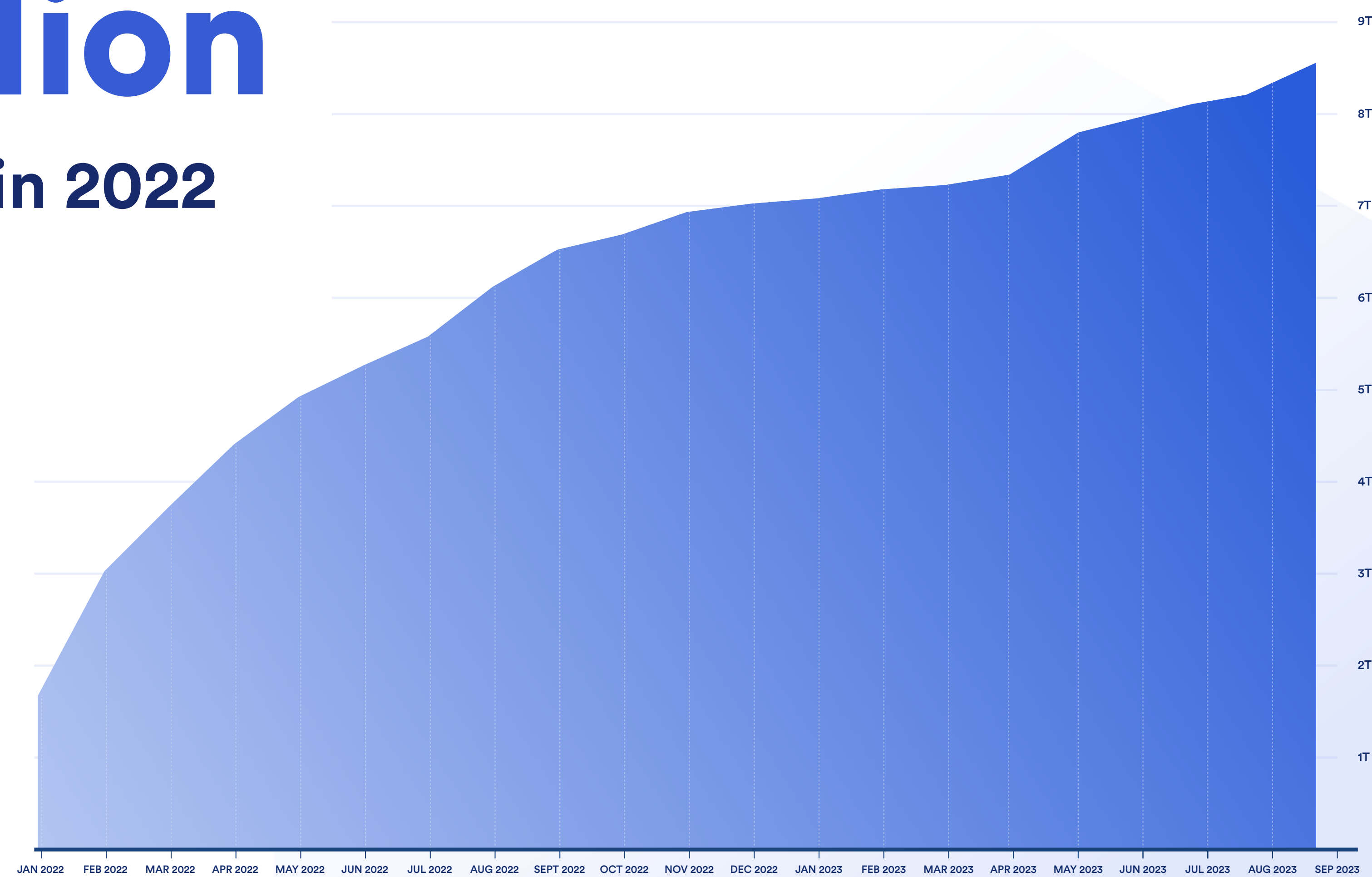
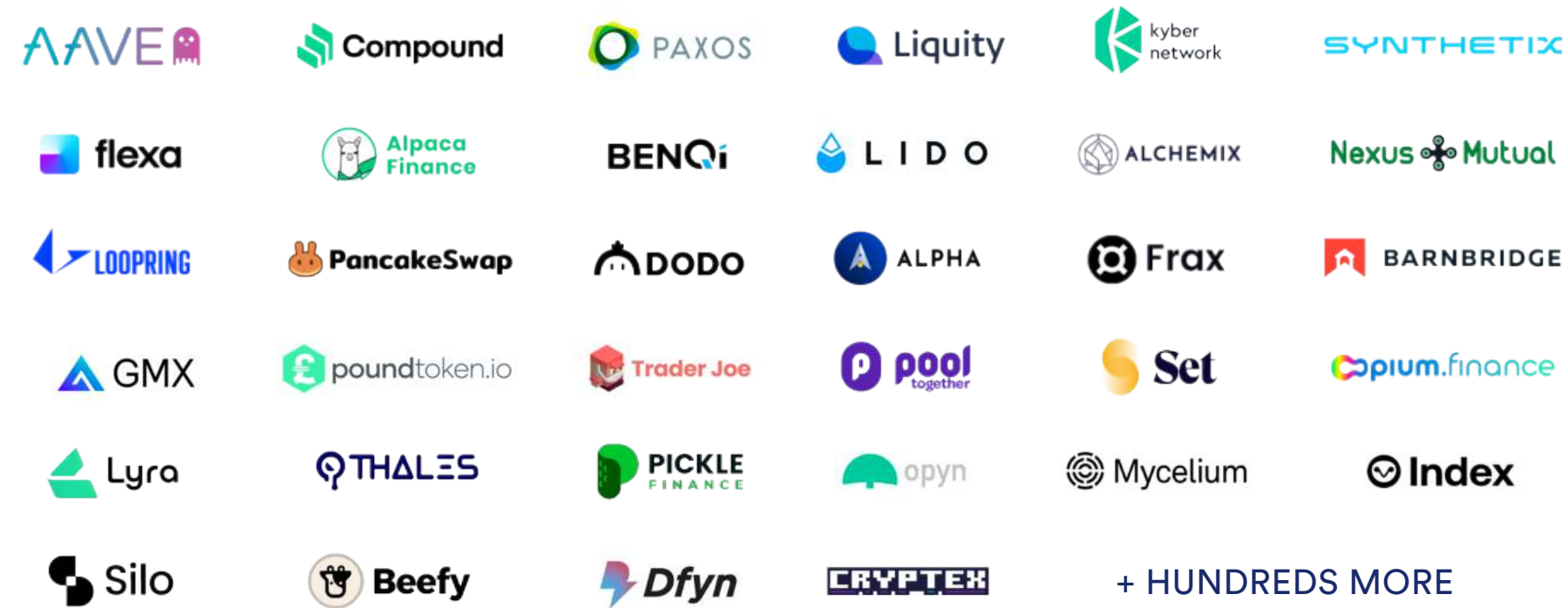
DATA POINTS SERVED TO BLOCKCHAINS BY CHAINLINK ORACLES



TRANSACTION VALUE ENABLED (TVE)

# \$8.68+ Trillion

## Cumulative Total Starting in 2022



TVE is calculated by taking the sum of the USD value associated with each transaction utilizing a Chainlink oracle.

Chainlink TVE currently reflects the aggregate USD value of crypto transactions facilitated by Chainlink starting in 2022 on Avalanche, BNB Chain, Ethereum, Fantom, Gnosis, Heco, Optimism, and Polygon.



# Chainlink Developer Platform/Metalayer



## Cryptographically Provable Data



### Market Data Oracle Networks



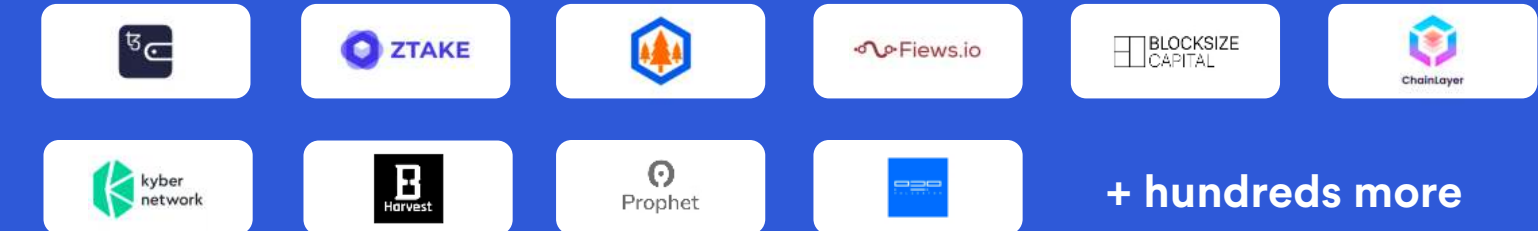
### Proof of Reserve Oracle Networks



### Identity and Other Data Oracle Networks



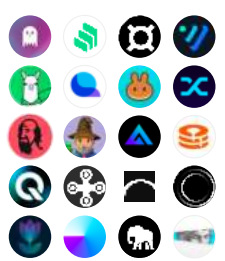
## Decentralized Oracle Networks



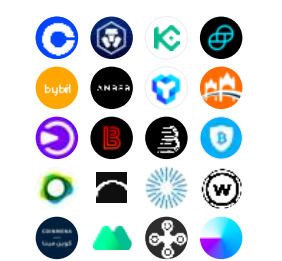
+ hundreds more



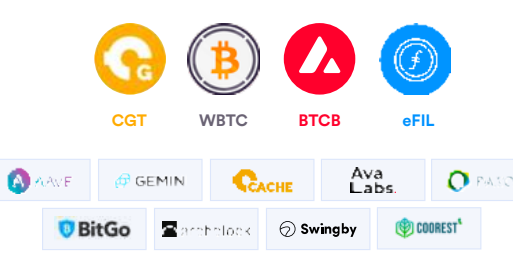
### DeFi Contracts



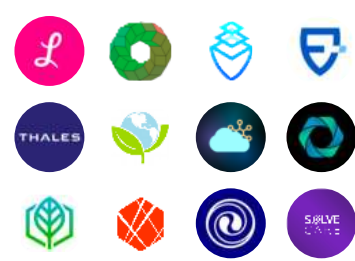
### CeFi Applications



### Real-World Asset Proofs and Wrapped Assets



### New Hybrid Smart Contracts



## CROSS-CHAIN INTEROPERABILITY PROTOCOL



Global Banks



Asset Managers



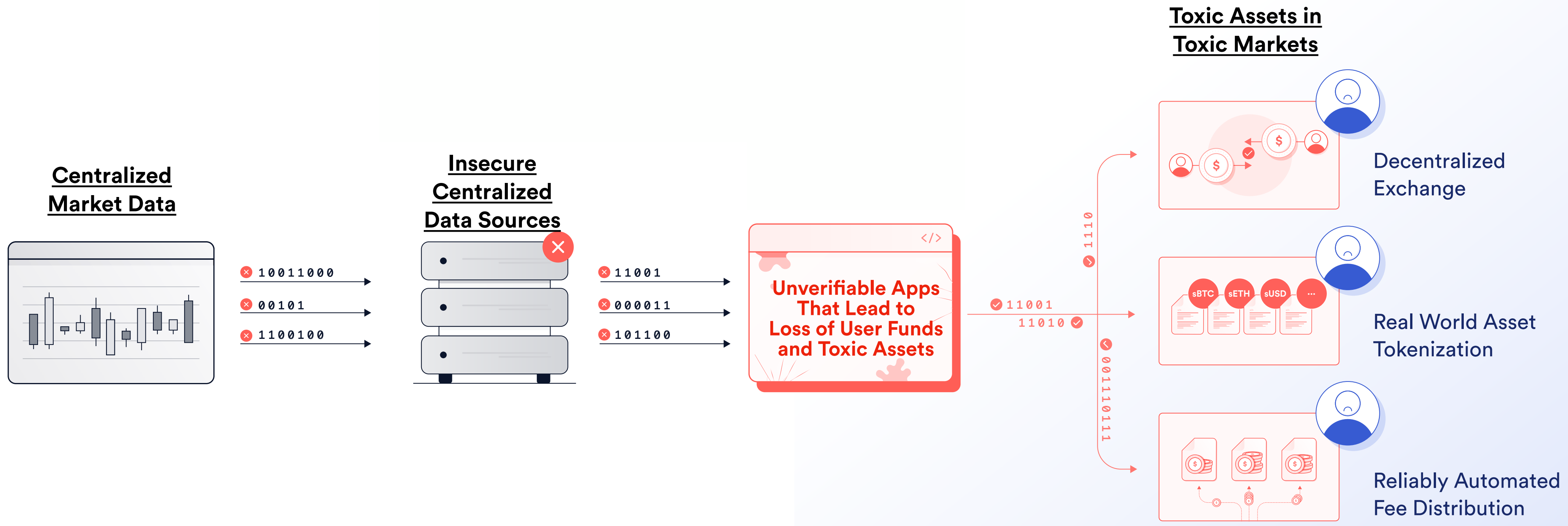
Clearing & Settlement Depositories



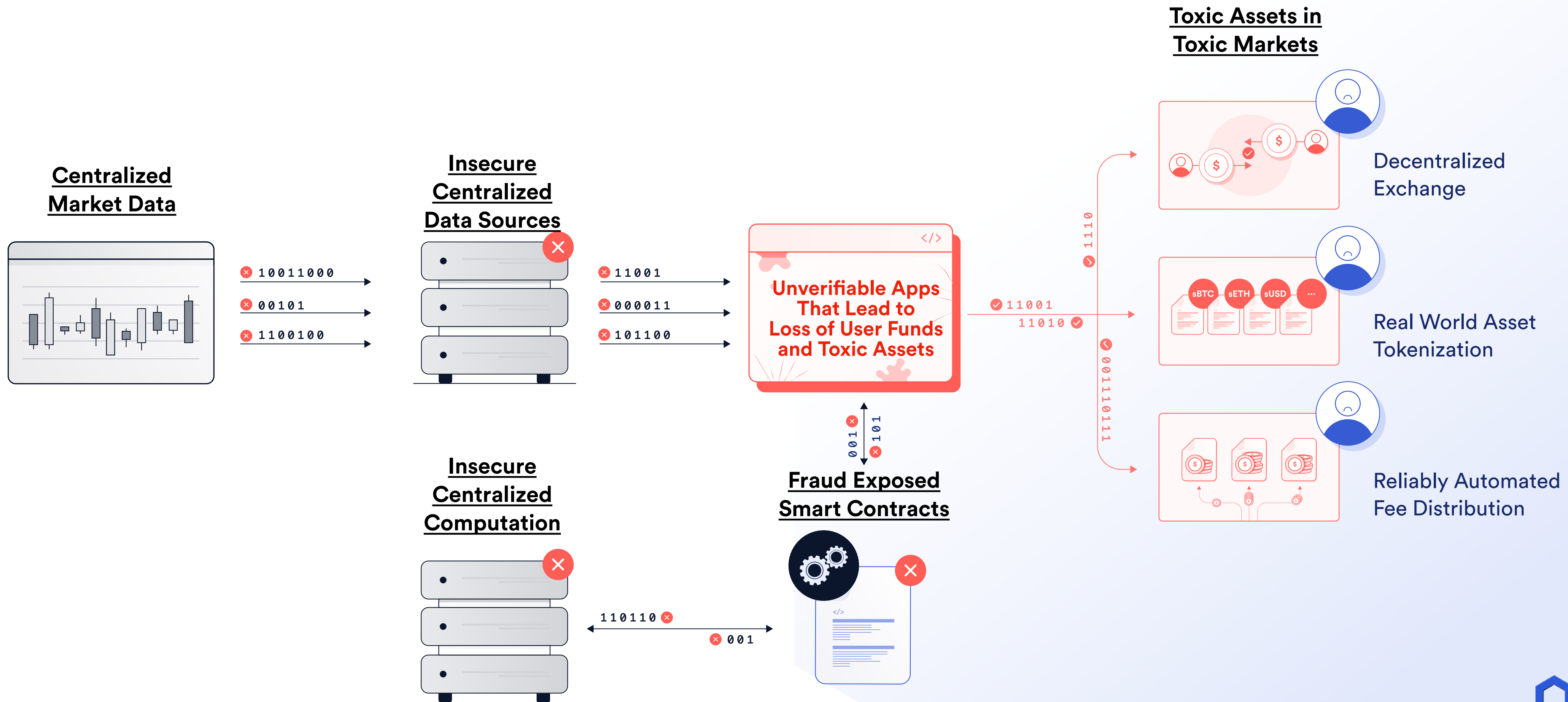
Central Bank Digital Currencies



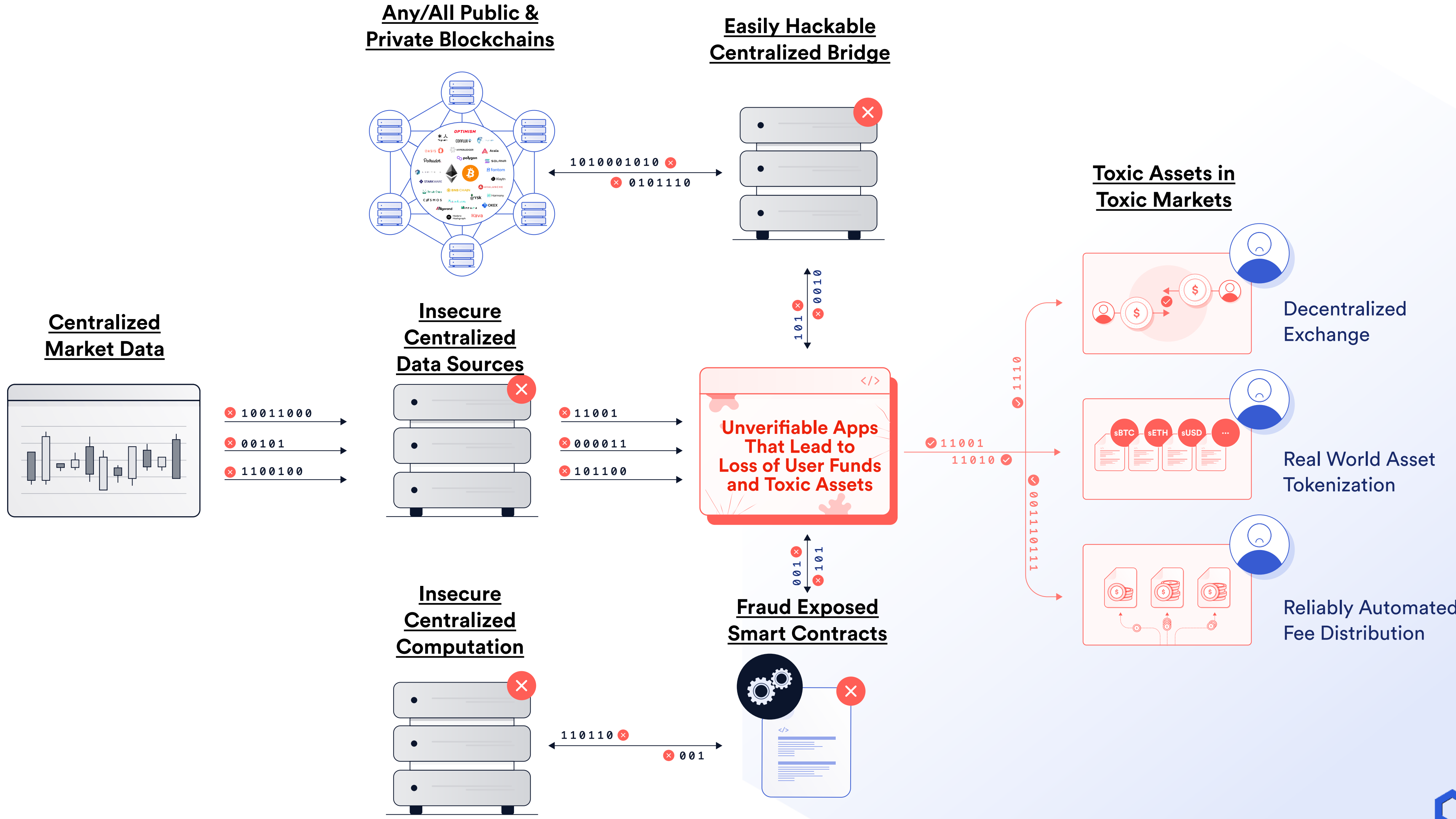
# Unverifiable Applications create Manipulated Markets that Users Will Avoid



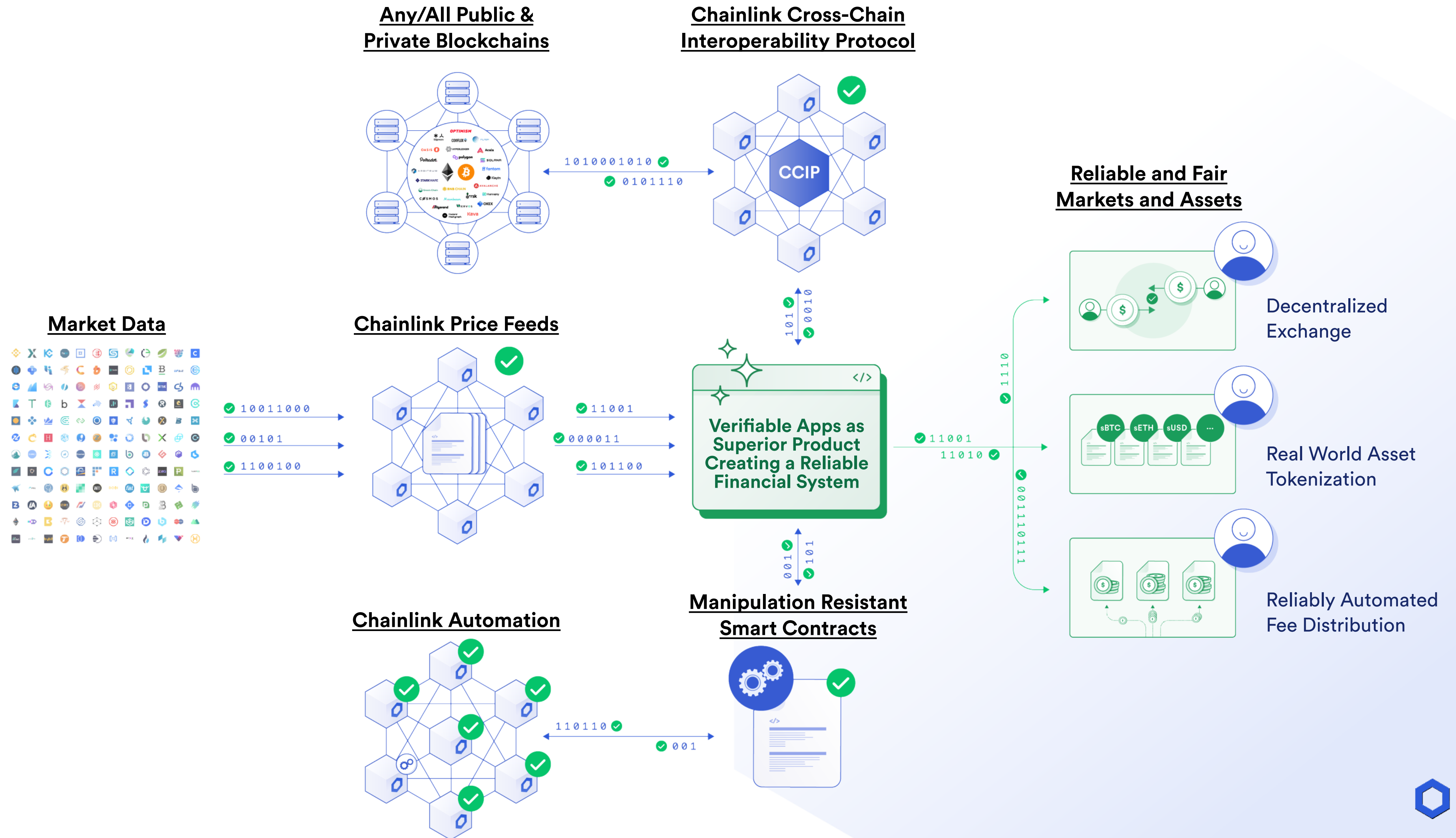
# Unverifiable Applications create Manipulated Markets that Users Will Avoid



# Unverifiable Applications create Manipulated Markets that Users Will Avoid



# Verifiable Applications Deliver the True Value of Smart Contracts and DeFi





# Chainlink Functions Beta Live on Mainnet



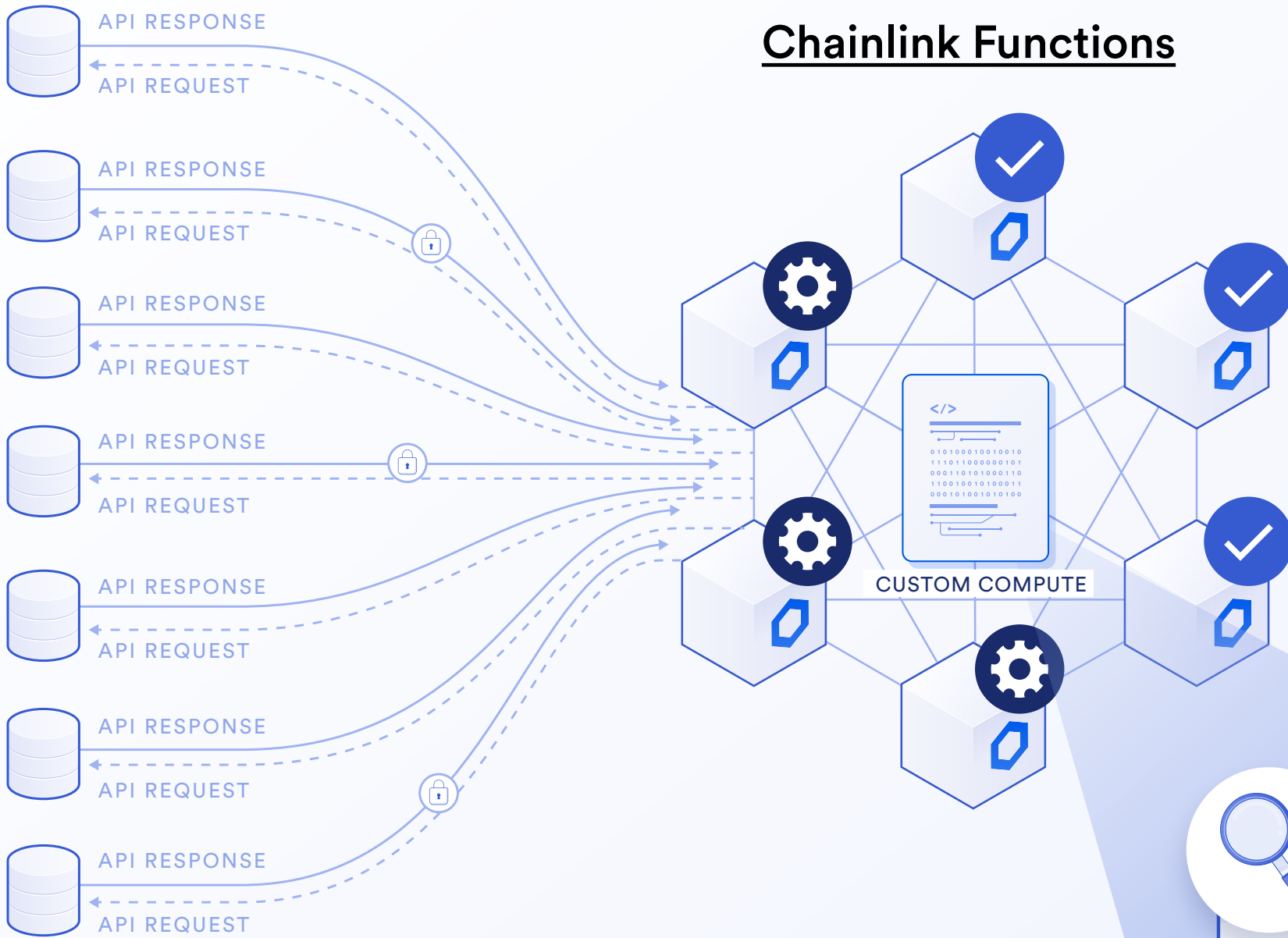


# Functions Combines Any API With Any Offchain Computation

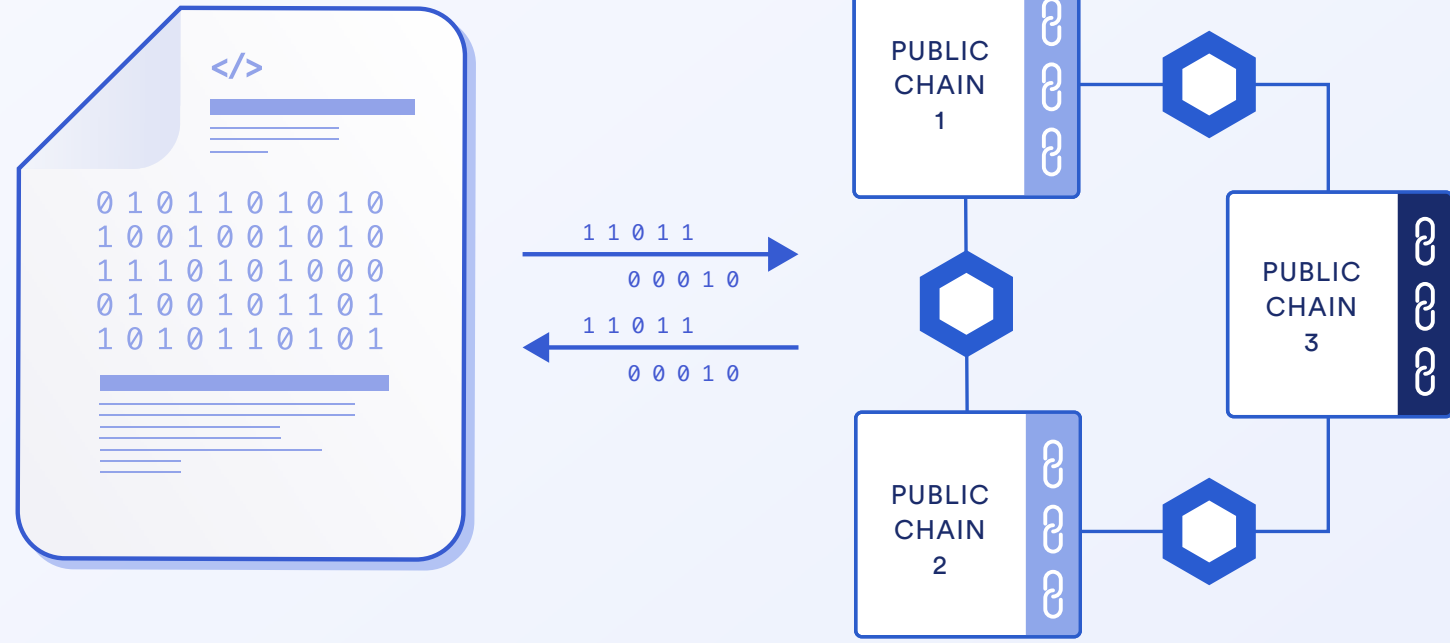
## Real World API's

Finance					
Weather					
Social					
IoT					
Sports					
AI/ML					
Enterprise					
Ecommerce					
Voting					

## Chainlink Functions



## Decentralized App on Blockchain



**IoT/ML Data + Compute Example**

```

</>
// Fetch your data from one or more APIs
const IOT_DeviceA = await Functions.makeHttpRequest({ url: 'https://exampleIOT_A.com/key=${secrets.keyA}' })
const IOT_DeviceB = await Functions.makeHttpRequest({ url: 'https://exampleIOT_B.com/key=${secrets.keyB}' })
const IOT_DeviceC = await Functions.makeHttpRequest({ url: 'https://exampleIOT_C.com/key=${secrets.keyC}' })

const IOT_Average = Math.average(IOT_DeviceA, IOT_DeviceB, IOT_DeviceC)

const AI_Soil_Prediction = await Functions.makeHttpRequest({
  url: 'https://exampleAI.com'
  data: IOT_Average
  method: 'post'
})

// Write data to the blockchain using decentralized oracles
return Functions.encodeUint256(AI_Soil_Prediction)
    
```



# Chainlink Developer Platform/Metalayer



## Cryptographically Provable Data

## Cryptographically Trust-Minimized Compute

### Market Data Oracle Networks

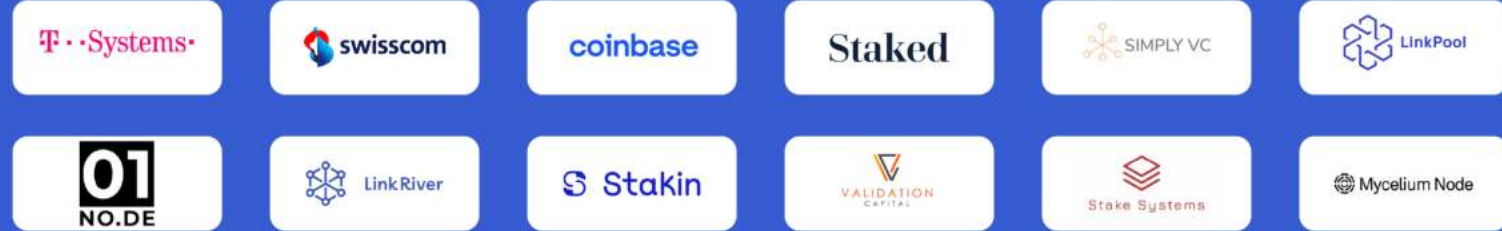
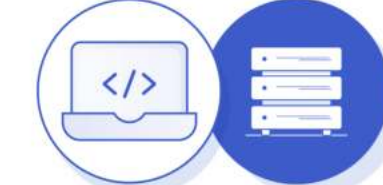
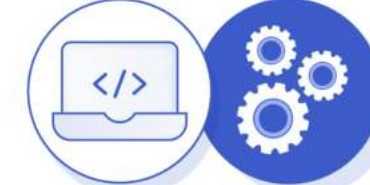
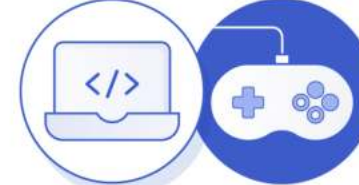
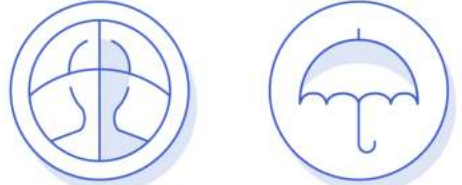
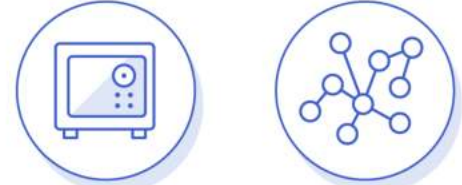
### Proof of Reserve Oracle Networks

### Identity and Other Data Oracle Networks

### Verifiable Randomness Function (VRF)

### Automation Oracle Networks

### Functions Oracle Networks



## Decentralized Oracle Networks



### DeFi Contracts

### CeFi Applications

### Real-World Asset Proofs and Wrapped Assets

### New Hybrid Smart Contracts

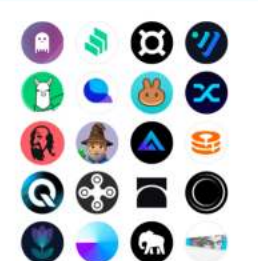
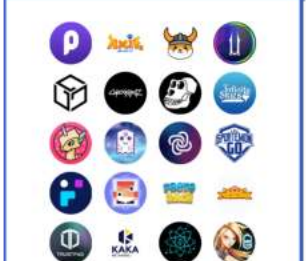
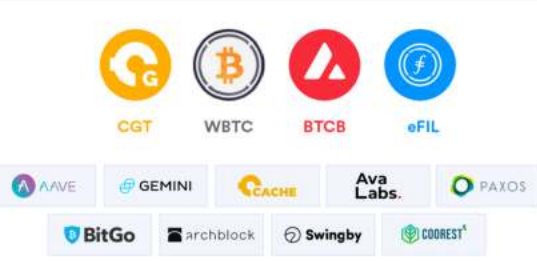
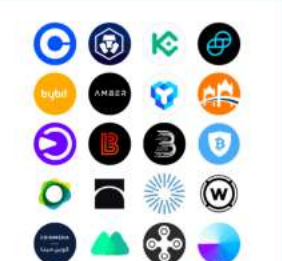
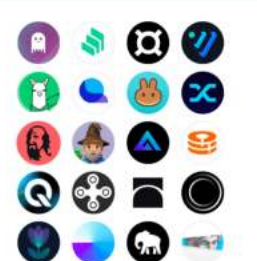
### Web3 Contracts

### Web2 Applications

### DeFi Contracts

### CeFi Applications

### New Trust-Minimized Applications



## CROSS-CHAIN INTEROPERABILITY PROTOCOL

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Global Banks



Asset Managers



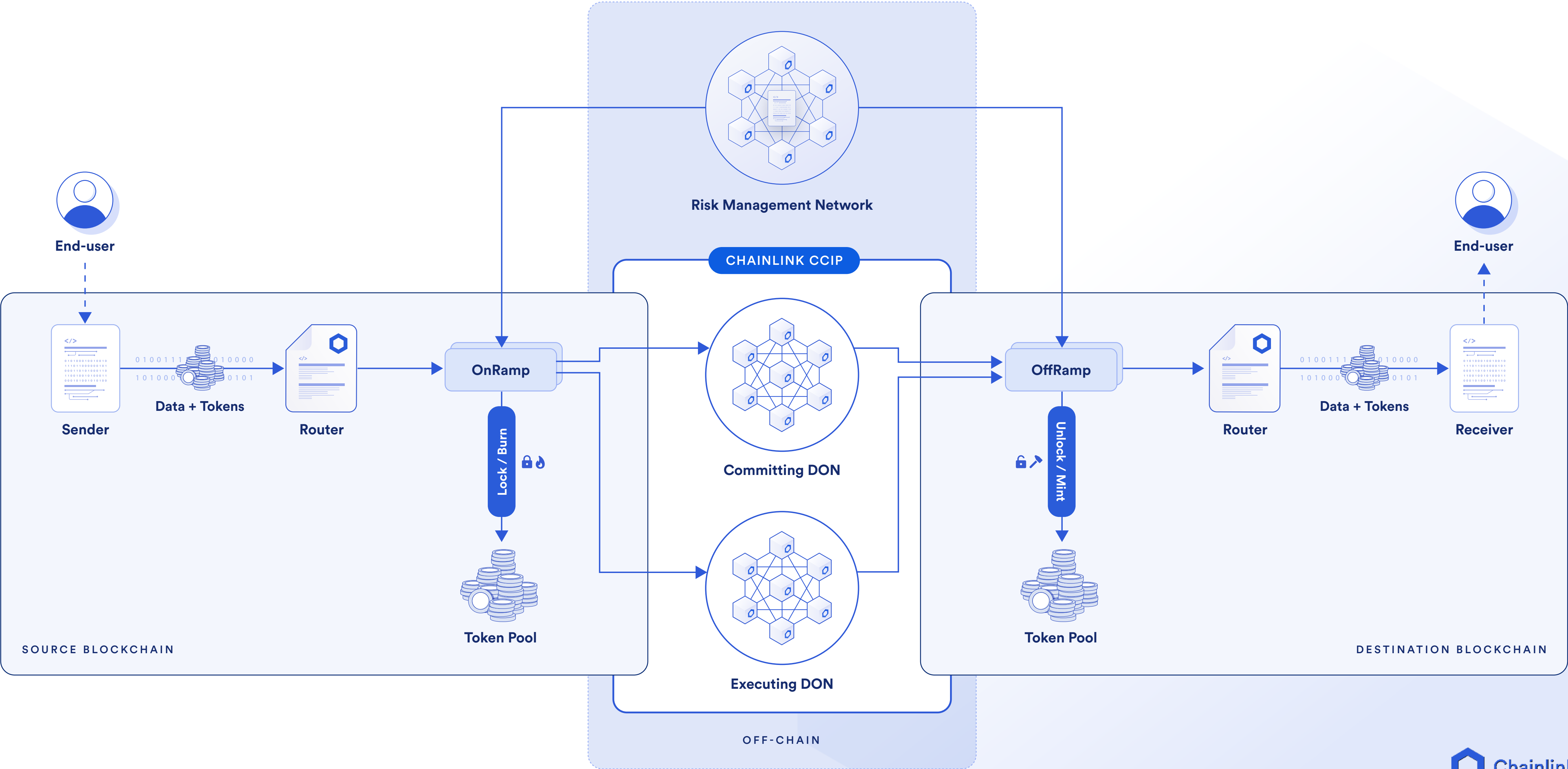
Clearing & Settler Depositories



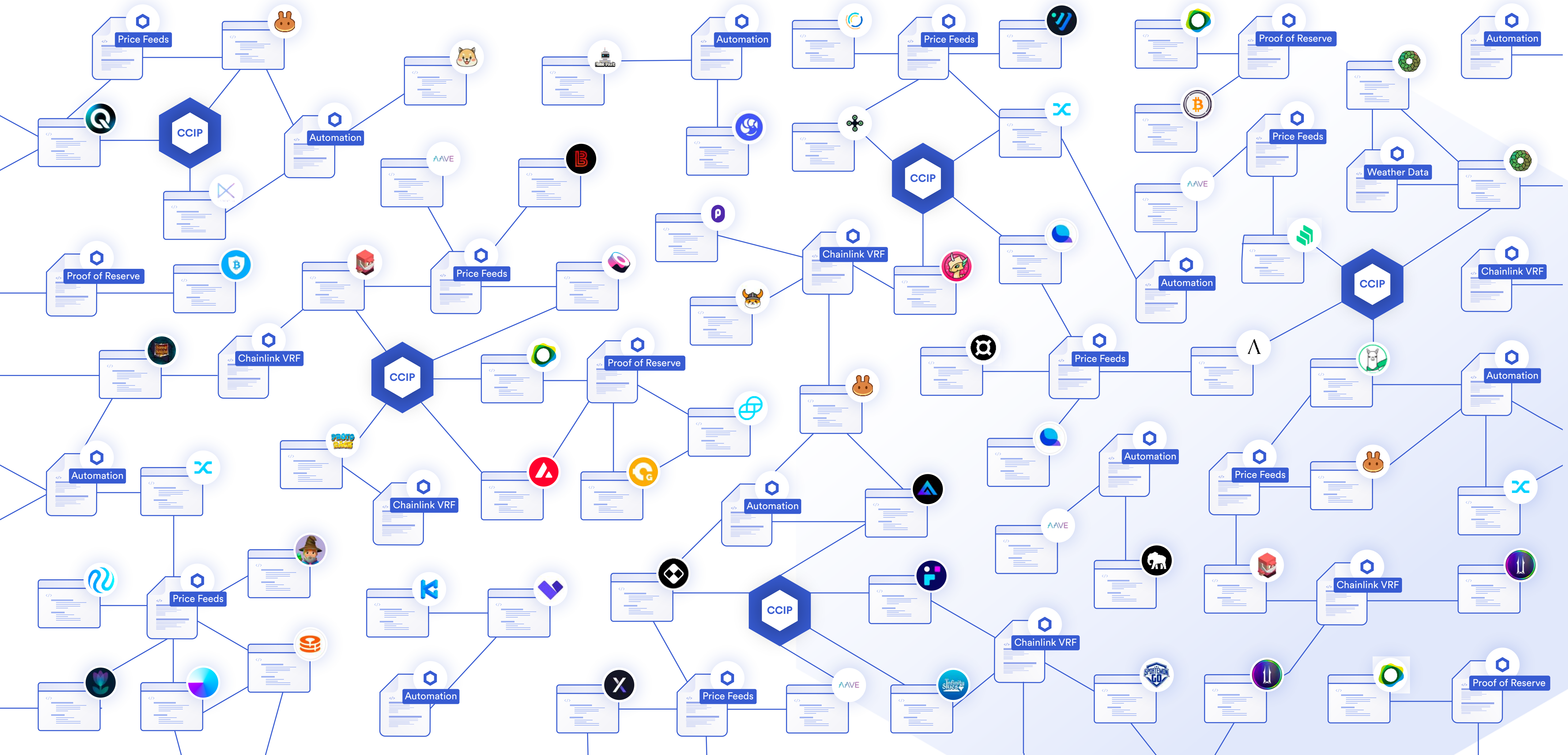
Clearing & Settler Depositories



# CCIP Introduces Risk Management and Greater Decentralization to Cross-Chain



# A Secure and Reliable Internet of Contracts Will Underpin the Verifiable Web

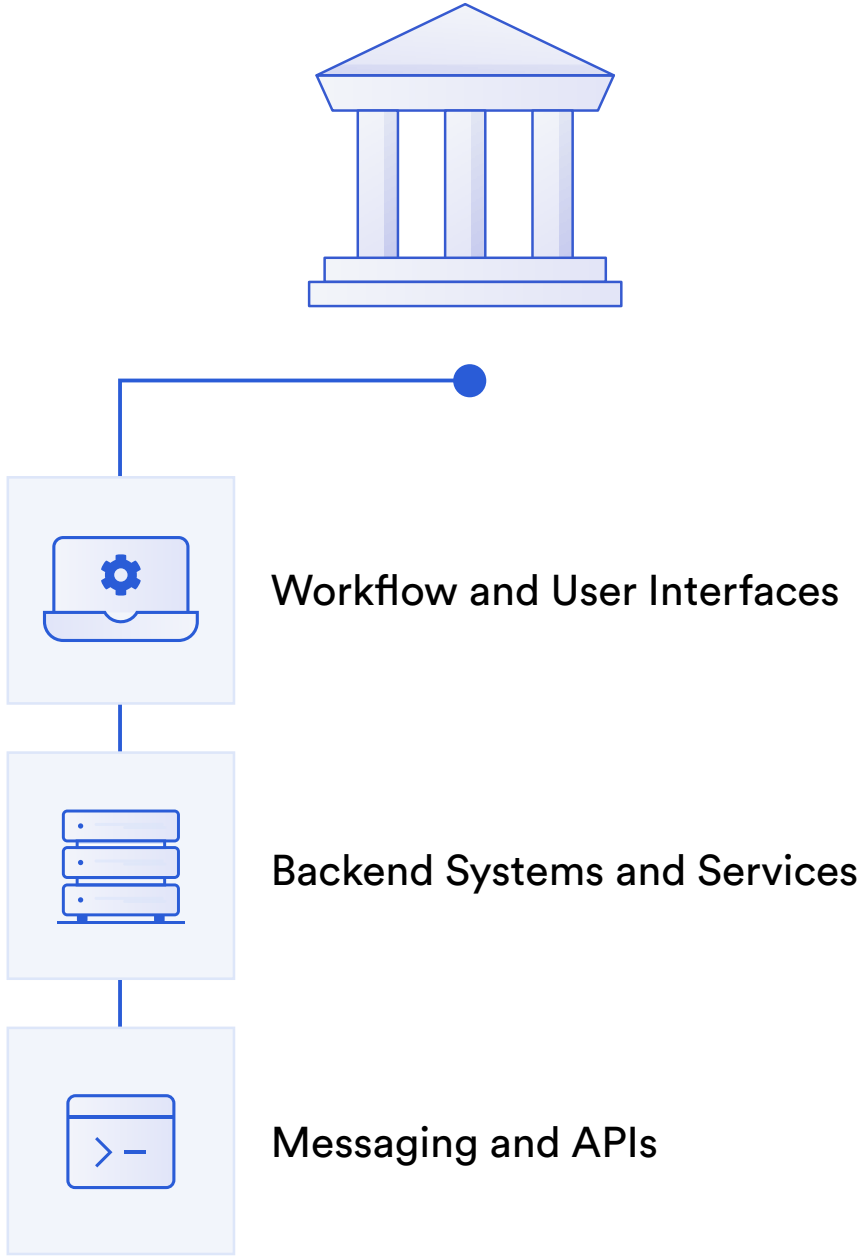


# CCIP Creates the Internet of Contracts and Liquidity Layer

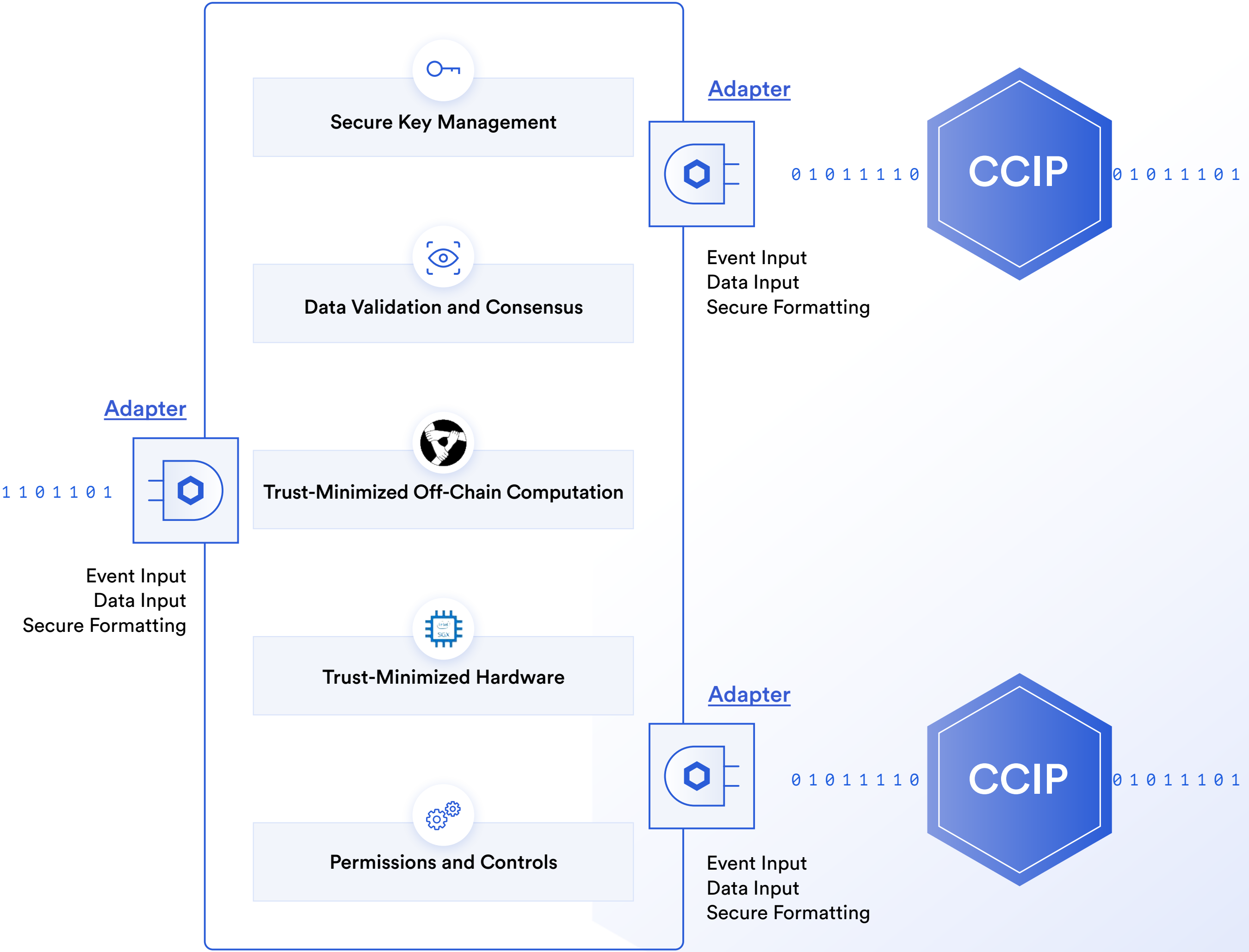
- Create the **most secure cross-chain** value transfer and communications standard.
  - Allow Smart Contracts, Web3 Wallets and Web2 Backends to easily use any blockchain and every onchain smart contract **without integrating** onto any chains.
  - Connect existing bank backends to the standard so their value can join the network, creating the **world's largest global liquidity layer** for all onchain assets to interact with global finance.
- 
- All public chain DeFi connected over CCIP
  - All Private chain Bank contracts connected on CCIP
  - All public chains and private chains connected into one **Global Internet of Contracts and Largest Liquidity Layer**

# Capital Markets Need a Connectivity and Interoperability Layer

## All Existing Bank Infrastructure



## Chainlink's CCIP Abstraction Layer

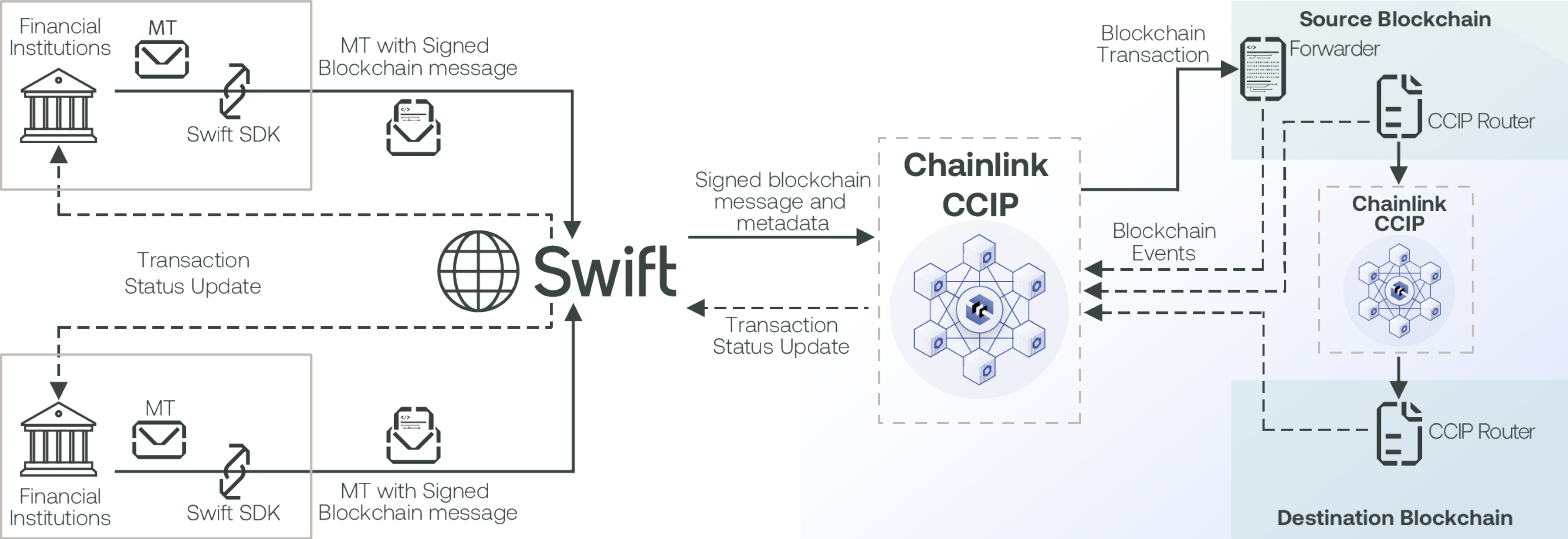


## Public & Private Chains



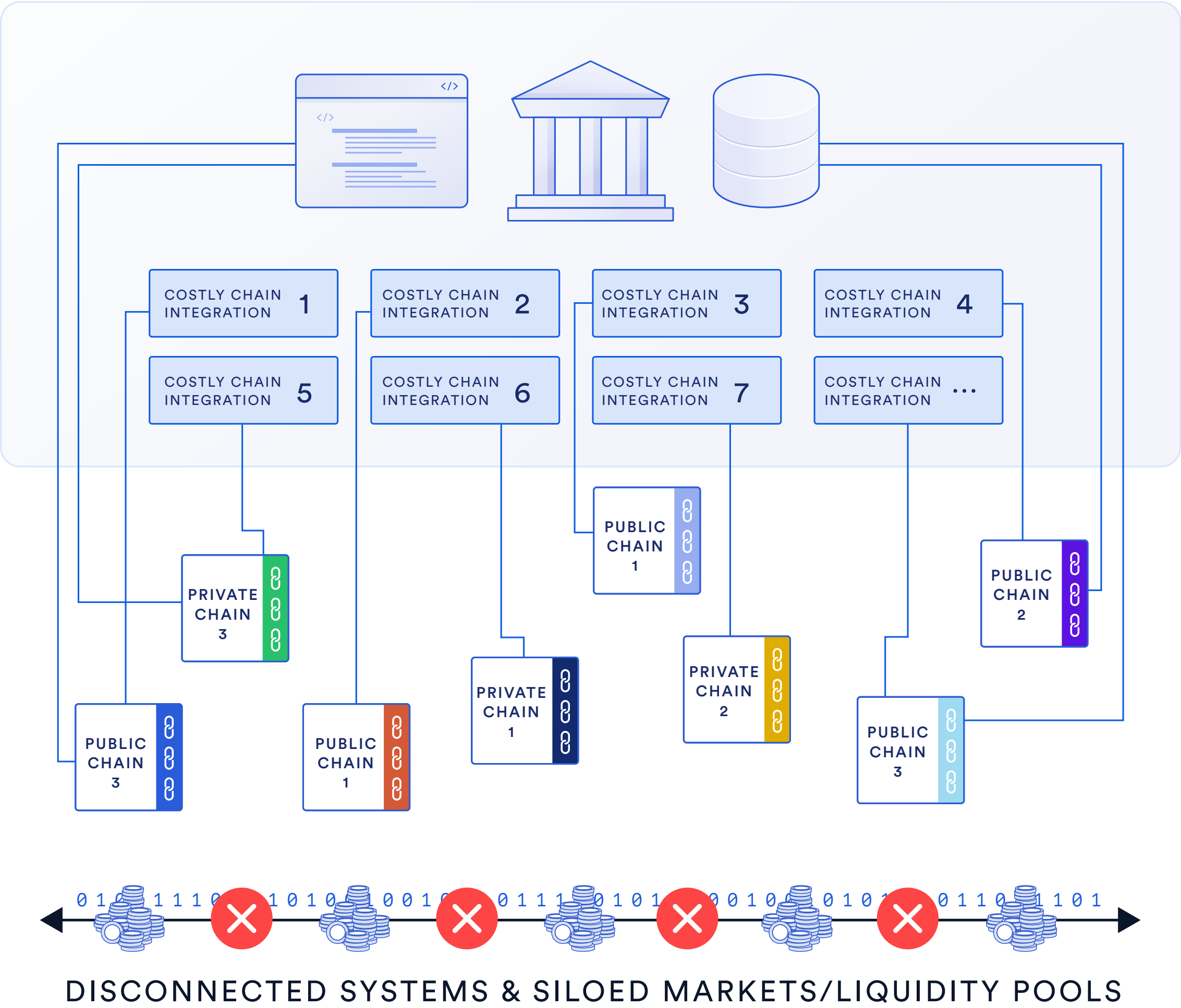
## CBDCs

# Efficiently Connecting Banks to Chains Utilizing Existing Banking Standards

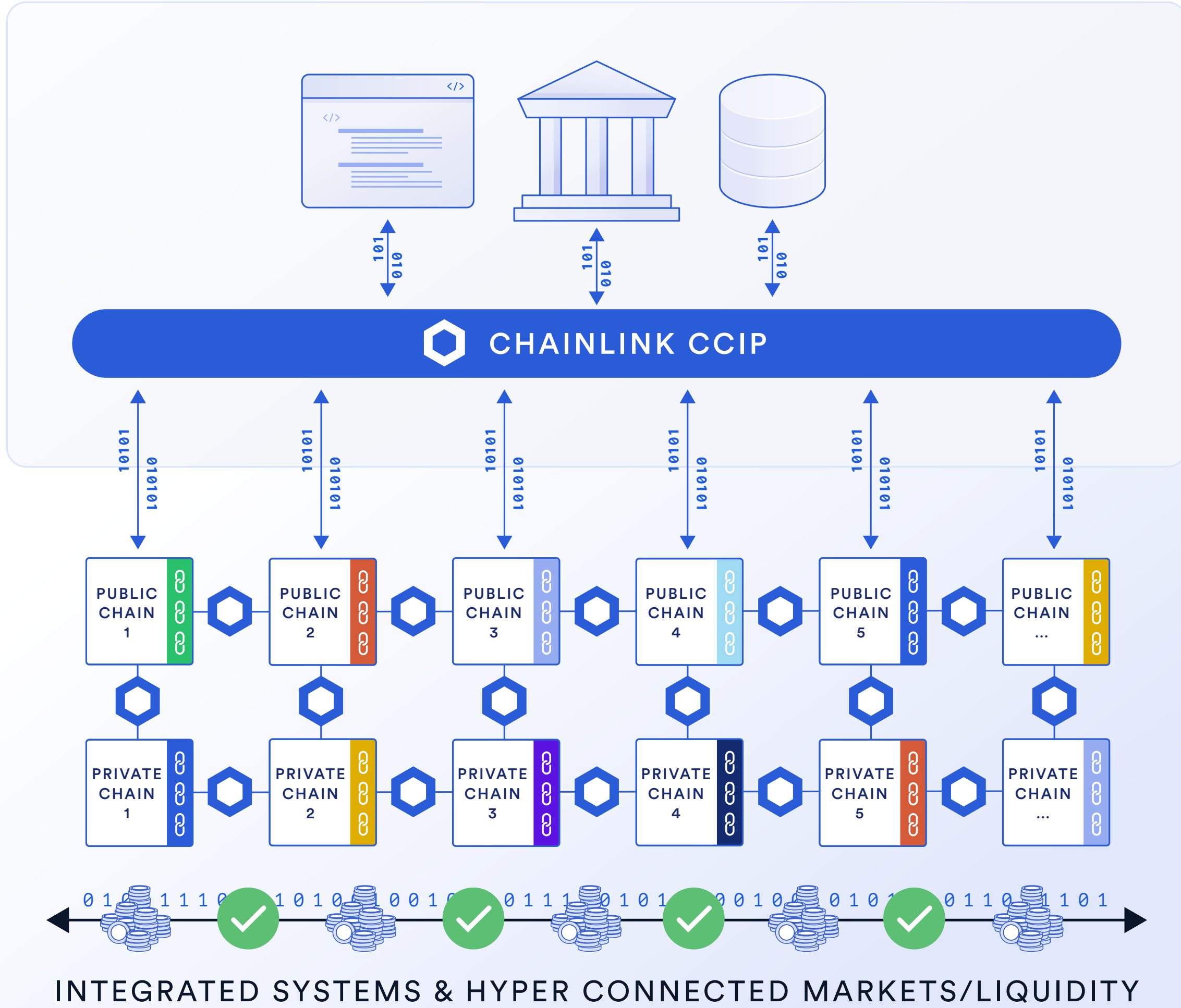


# Efficiently Connecting Banks to Blockchains via Existing Banking Standards

1000s of Costly Integrations into 1000s of Chains

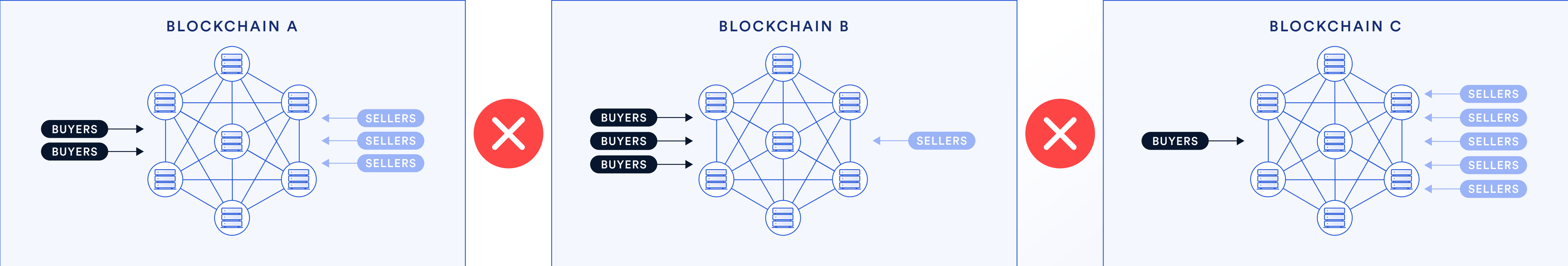


1 Integration Connects to 1000s of Chains

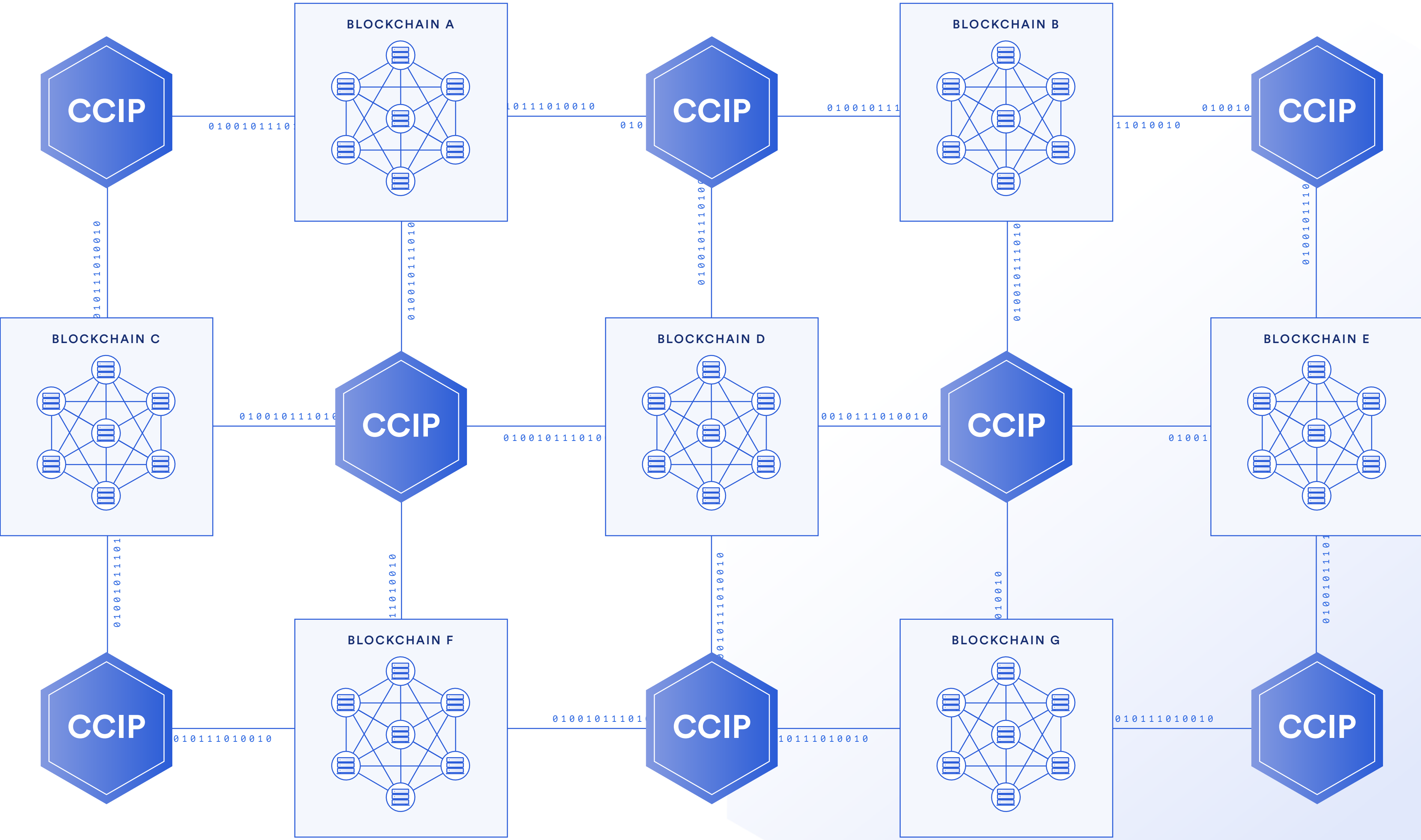




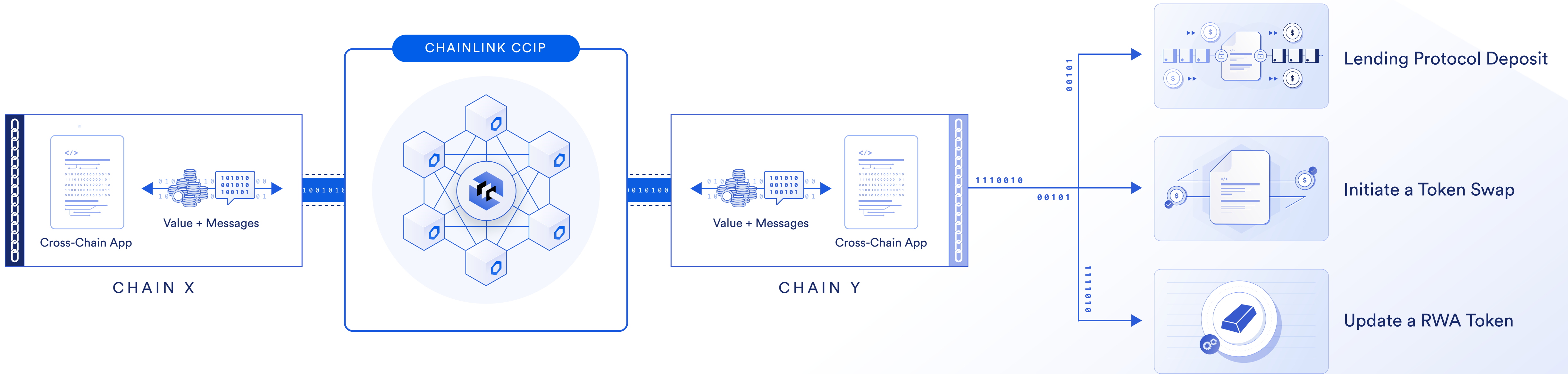
# Without Cross-Chain, Bank Chains Can't Access Markets/Liquidity



# Connecting All Onchain Markets and Liquidity with One Open Standard

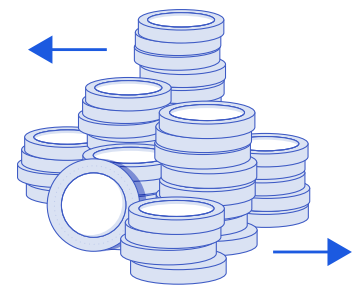


# Tokens + Messages Enables Easy Usage of Other Chains' Smart Contracts

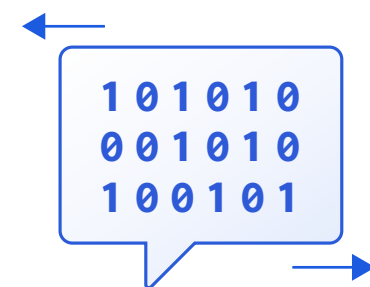


## AVAILABLE FEATURES

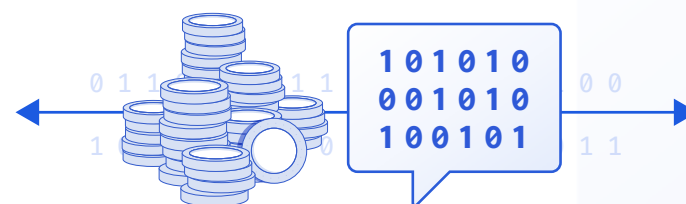
Enable Token/Value Movement



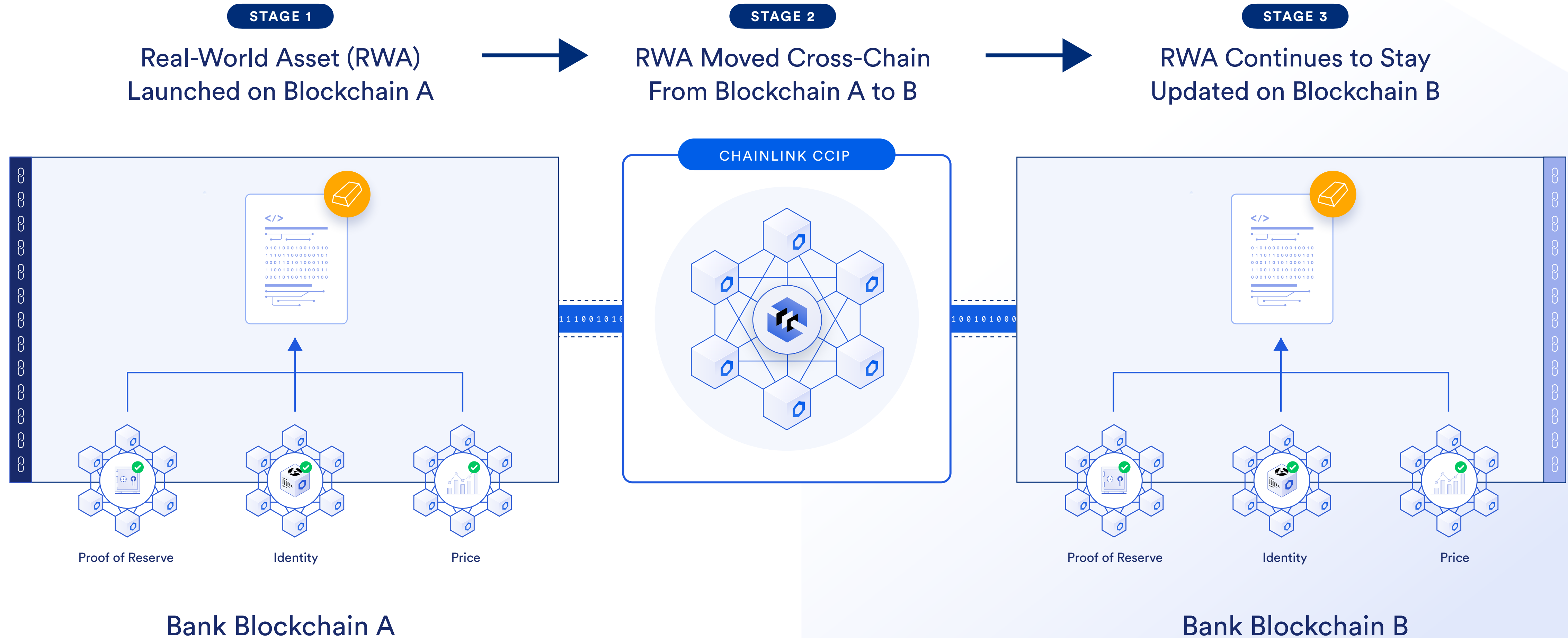
Send Messages



Move Value + Message Combined



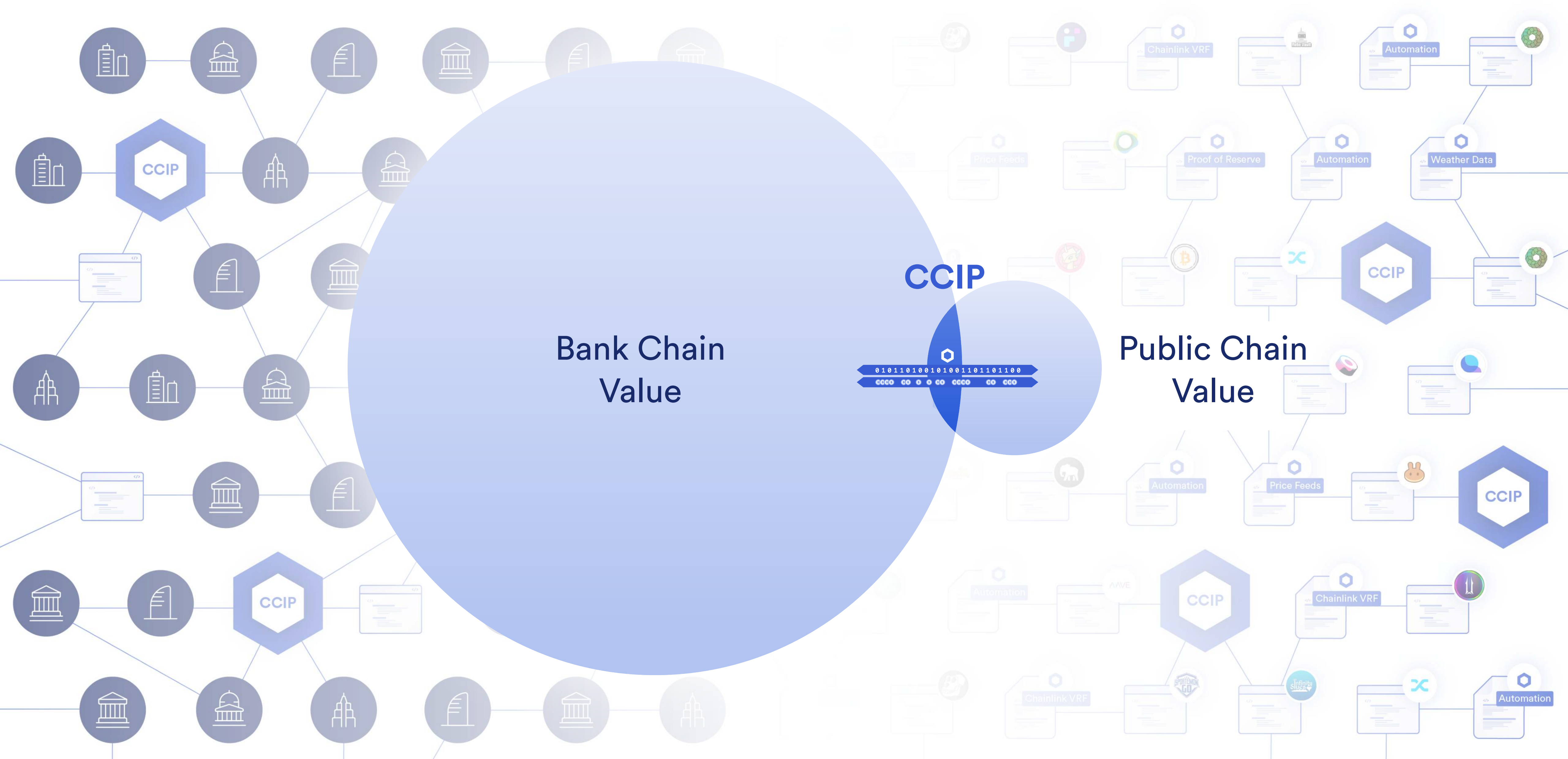
# Real-World Asset Tokenization Needs Cross-Chain and A Fully Updated State



# Creating Interbank Transactions Focused on Regional Counterparties using CCIP



# Two Separate Internets of Contracts Will Initially Exist: DeFi and Bank Chains



Bank Chain Value

CCIP

Public Chain Value

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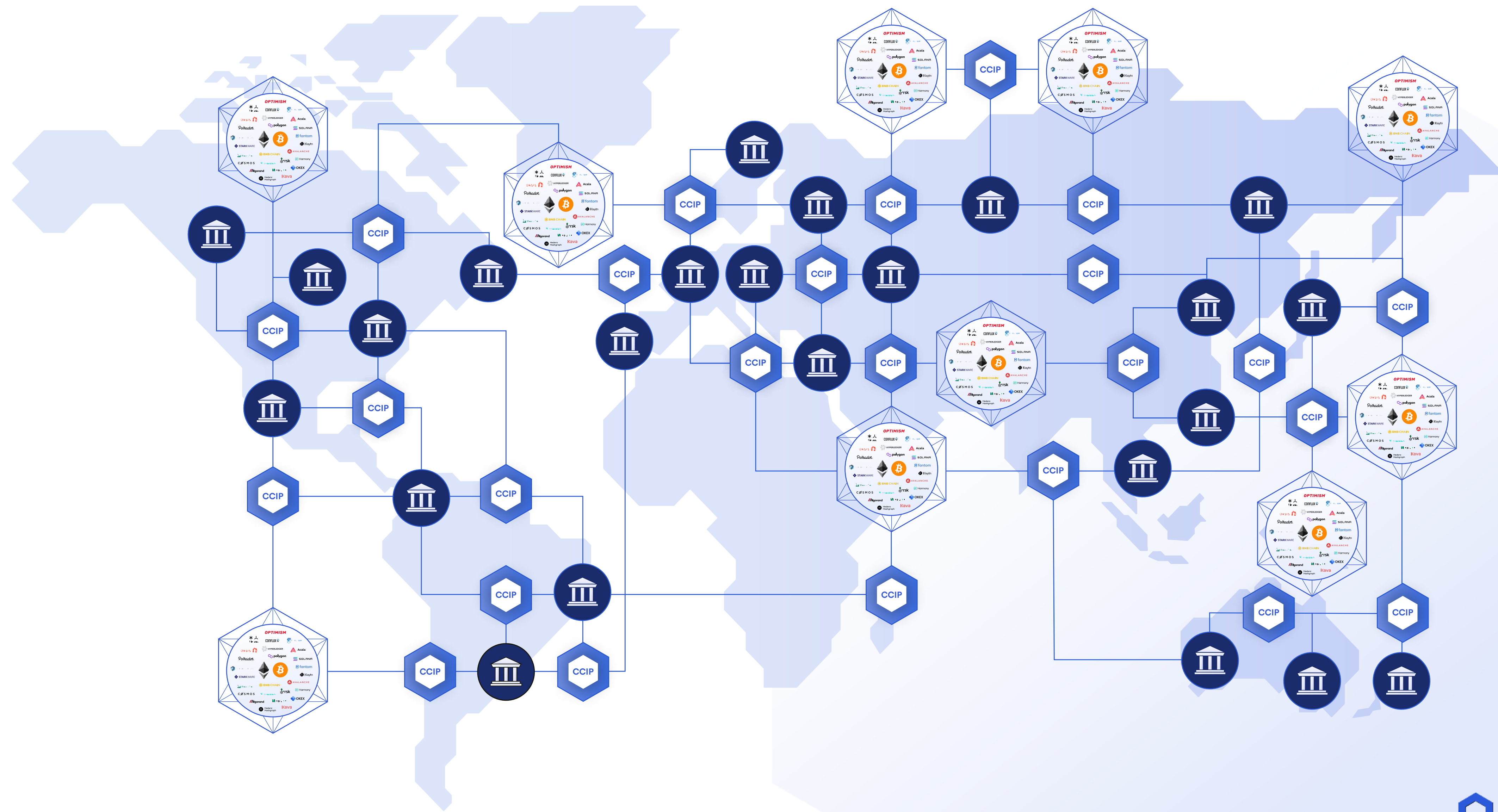
CCIP

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# CCIP is Built to Create Global Connectivity Across Banks and DeFi/Public Chains



# Turning the Global Financial System Into a Reliable Onchain Financial System



Bank Chain Value

CCIP

Public Chain Value

010110100101001101101100

\$\$\$\$



# Chainlink Developer Platform/Metalayer



## Cryptographically Provable Data

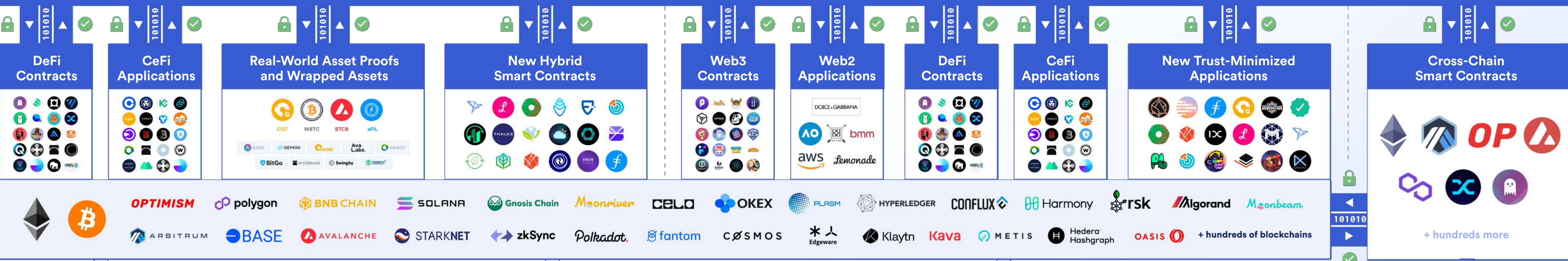
## Cryptographically Trust-Minimized Compute

## Cross-Chain Value



**Decentralized Oracle Networks**

Logos: Swisscom, Coinbase, Staked, LinkPool, SIMPLY VC, LinkRiver, Stakin, Staked, Mycelium Node, ZTAKE, Fliw.io, BLOCKSIZE CAPITAL, Chainlayer, Kyber network, Harvest, Prophet, + hundreds more



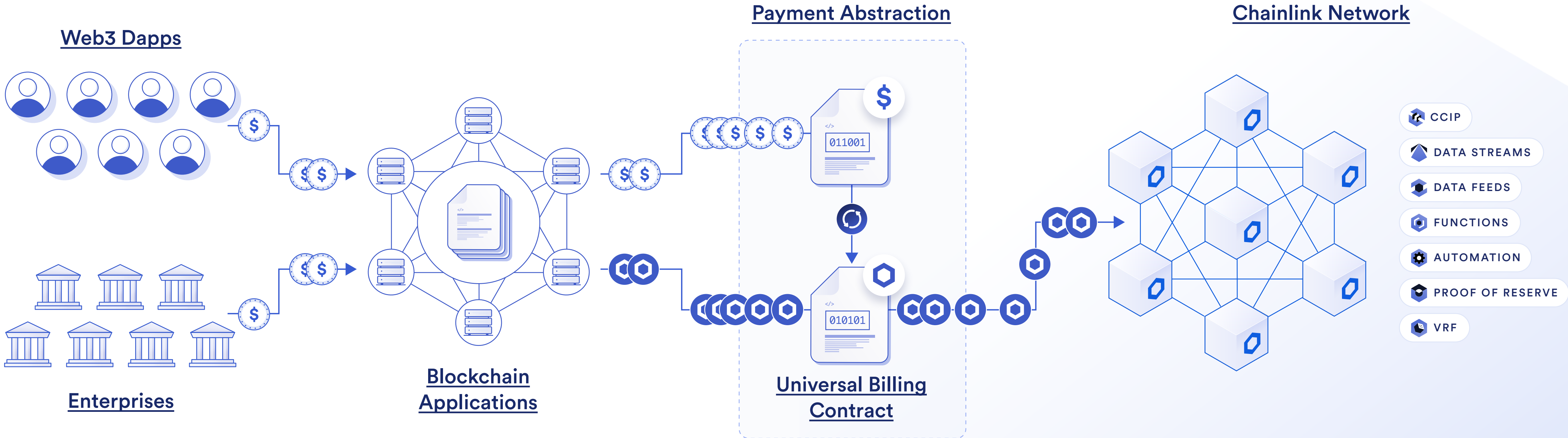
**Blockchain Ecosystem**

Logos: Bitcoin, Ethereum, OPTIMISM, polygon, BNB CHAIN, SOLANA, Gnosis Chain, Moonriver, CELO, OKEX, PLASM, HYPERLEDGER, CONFLUX, Harmony, rsk, Algorand, Moonbeam, ARBITRUM, BASE, AVALANCHE, STARKNET, zkSync, Polkadot, fantom, CØSMOS, Edgware, Klaytn, Kava, METIS, Hedera Hashgraph, OASIS, + hundreds of blockchains

**CROSS-CHAIN INTEROPERABILITY PROTOCOL**



# Payment Abstraction Reduces Payment Friction and Increases Fees Paid

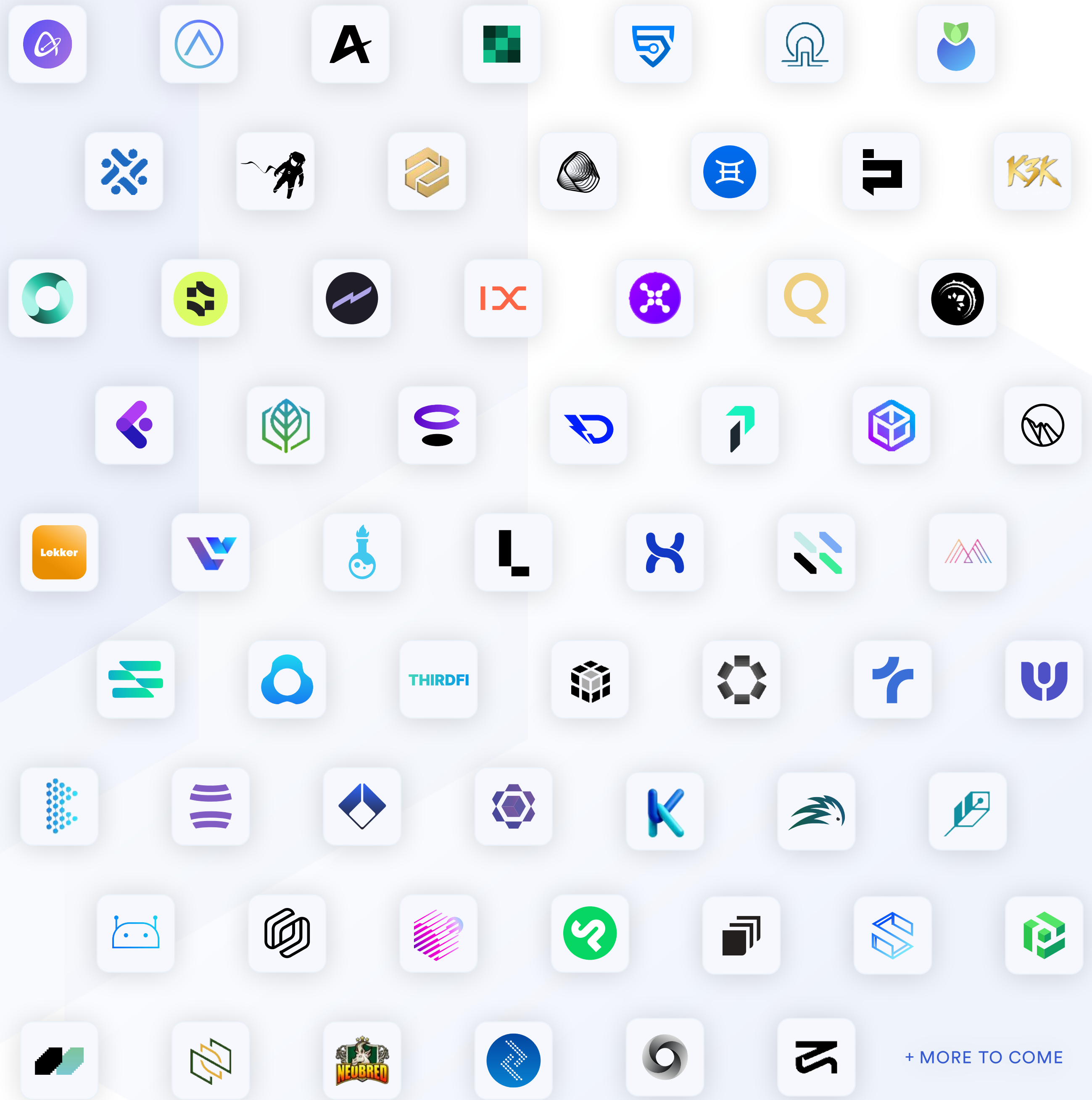


- ✓ Reduced Payment Friction
- ✓ Standardized Billing
- ✓ Increased Monetization

 = UNIVERSAL GAS TOKEN

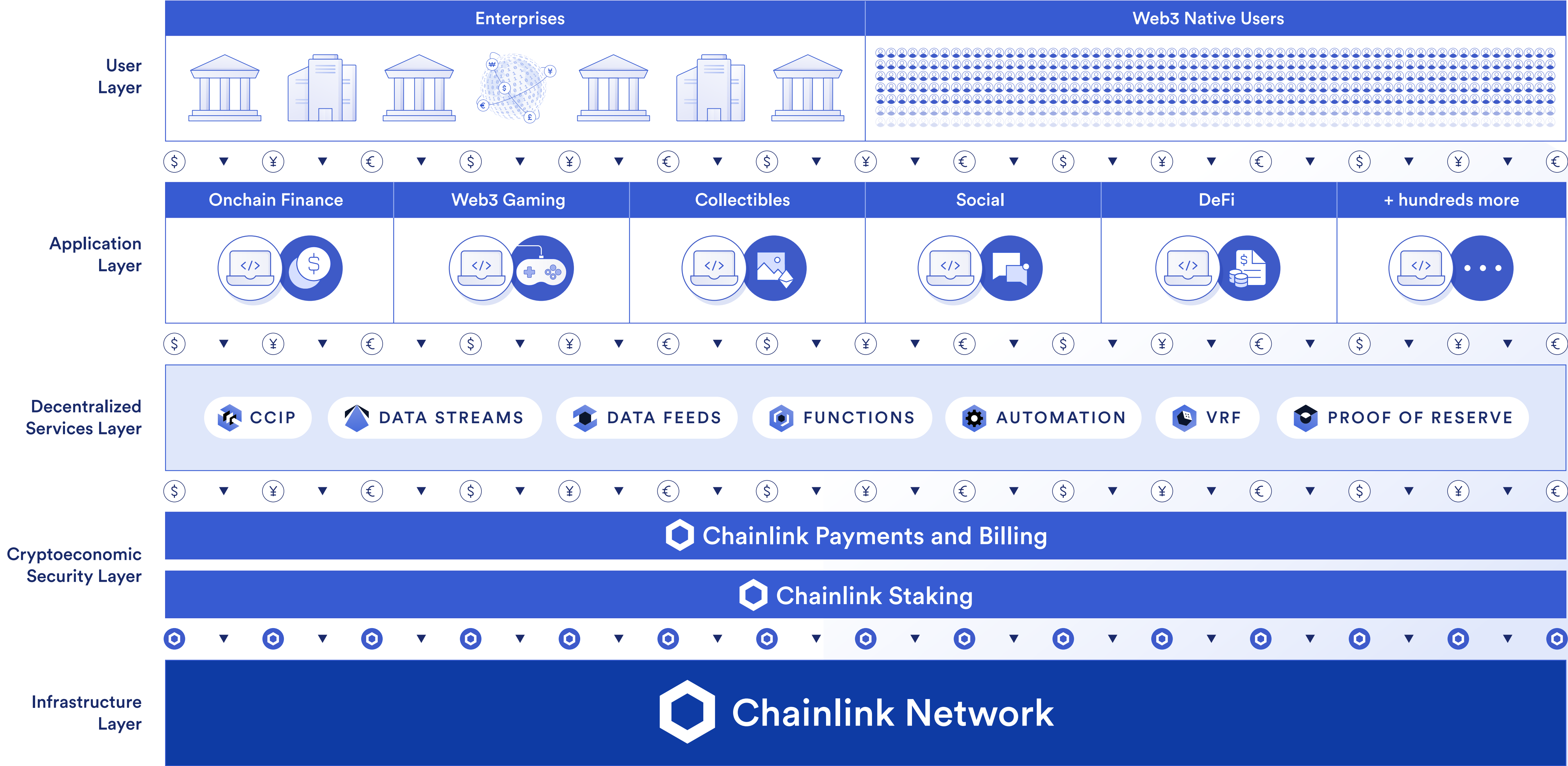


# 70+ BUILD Projects



+ MORE TO COME

# Chainlink's Economy is Growing With More Advanced Payments and Staking

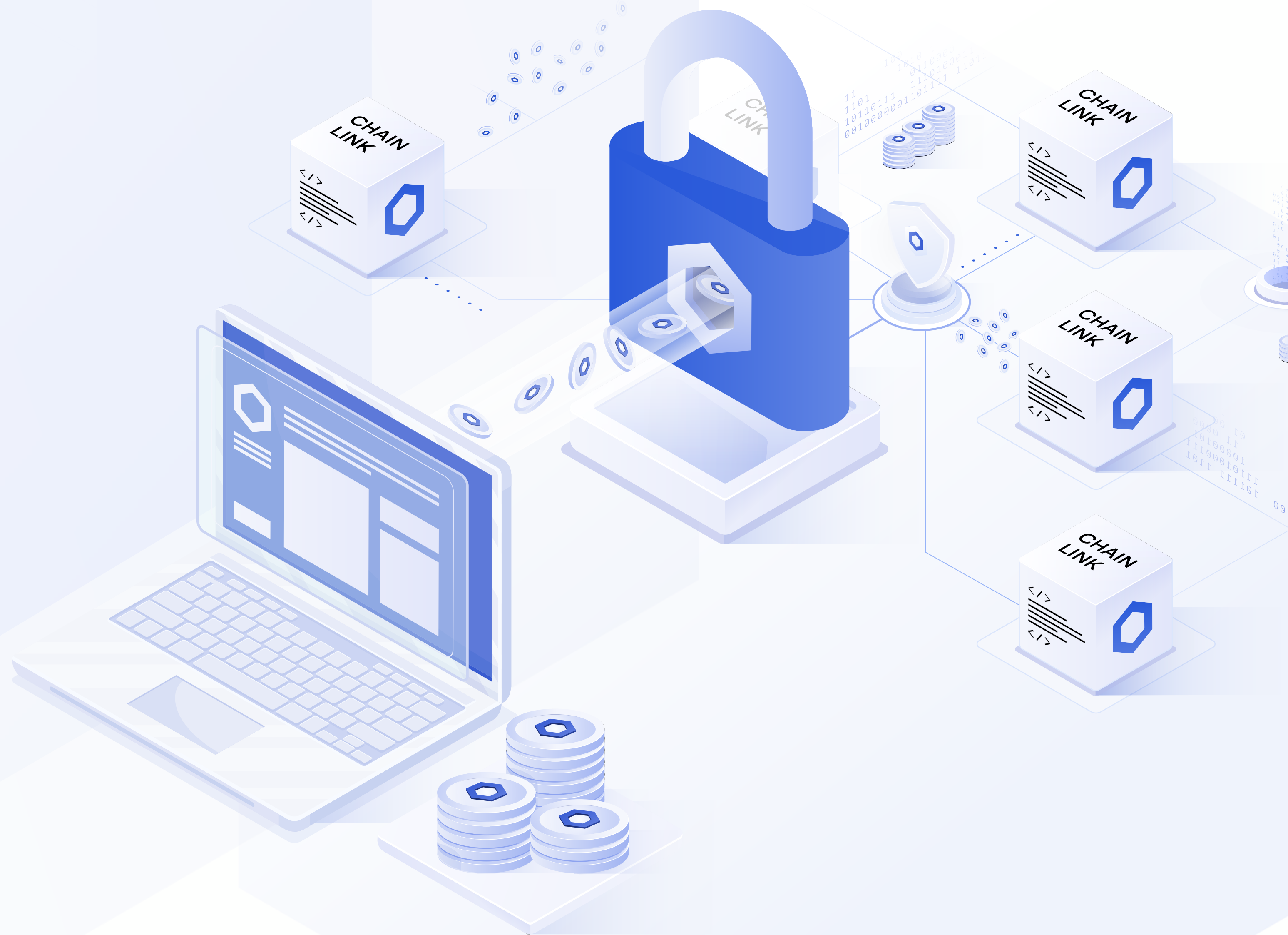




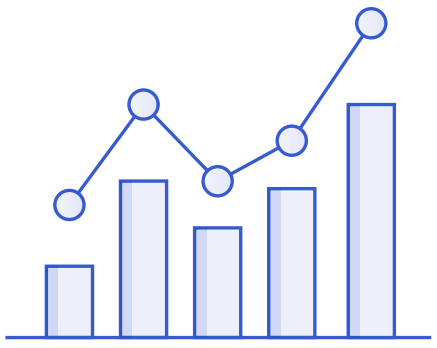
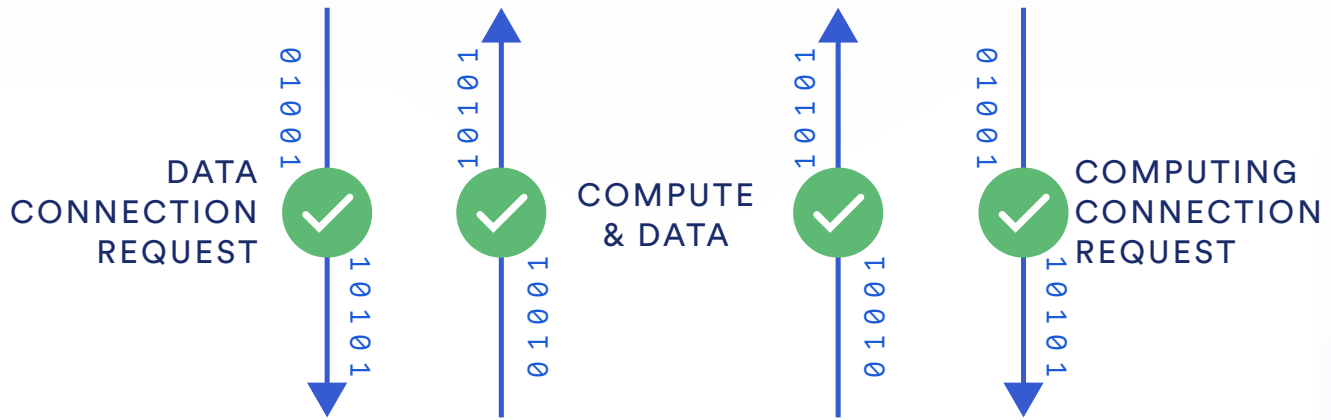
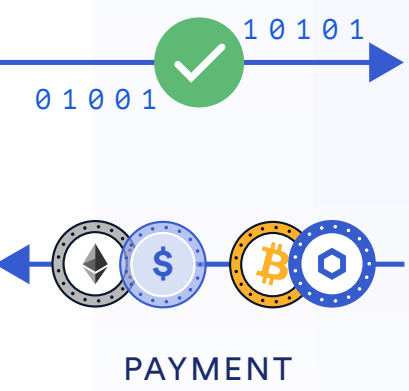
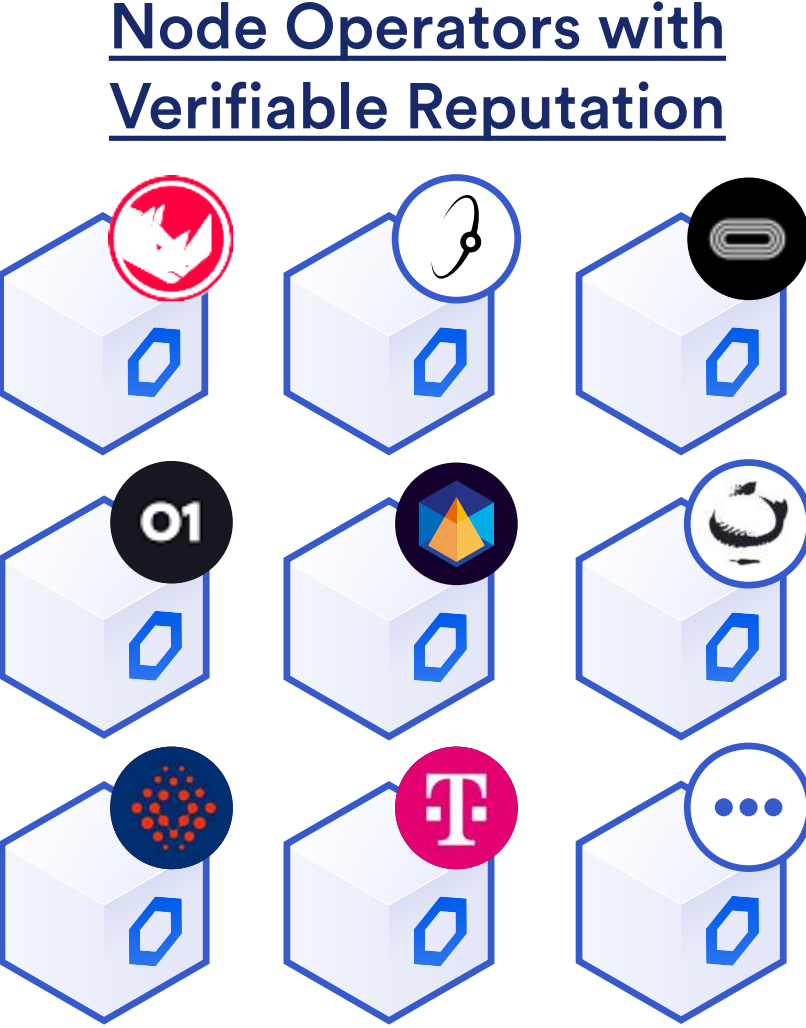
# Launching the Early Access Eligibility App For V0.2

ACCESS TODAY

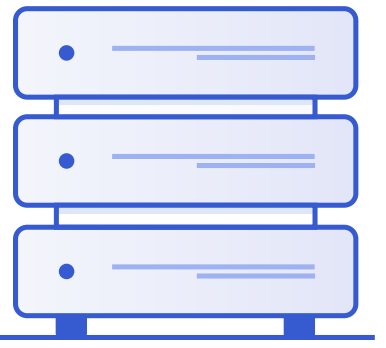
[staking.chain.link/eligibility](https://staking.chain.link/eligibility)



# Global Decentralized Computing Marketplace (DCM) Creating Any DON

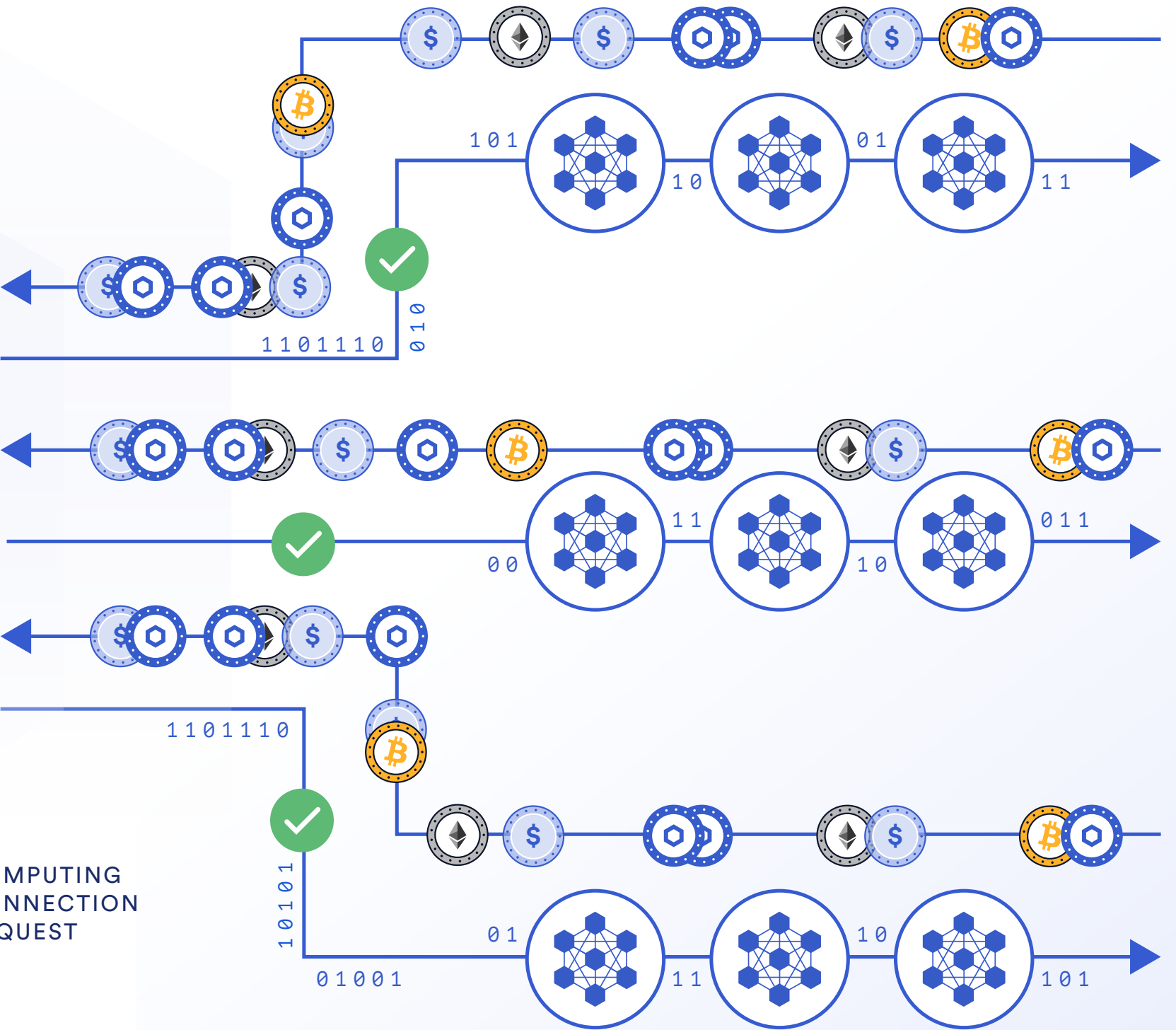


**Any and All Data Sources**



**Cloud and AI Computations**

**Decentralized Oracle Networks Being Purchased by Any App**



**Verifiable Applications Across All Use Cases**



Verifiable Bank RWAs & Digital Assets



Verifiable Web2 Apps



Verifiable Web3 Dapps



Default | Ethereum | Bitcoin | +

DON CONFIG ^

Premium Node Quality Score: A

7 Nodes

TRIGGER ^

Automation

Trigger

Time-Based *Every 2 hours*

+ Add More Triggers

FETCH ^

Function

Get Collateral



COMPUTE >

CONSENSUS >

OUTPUT ^

CCIP / Write to Chain

Ethereum

CODE

OUTPUT | LOG



```
//DON config
console.don.config(){
  don.size = 7;
  don.quality = grade_A;
}

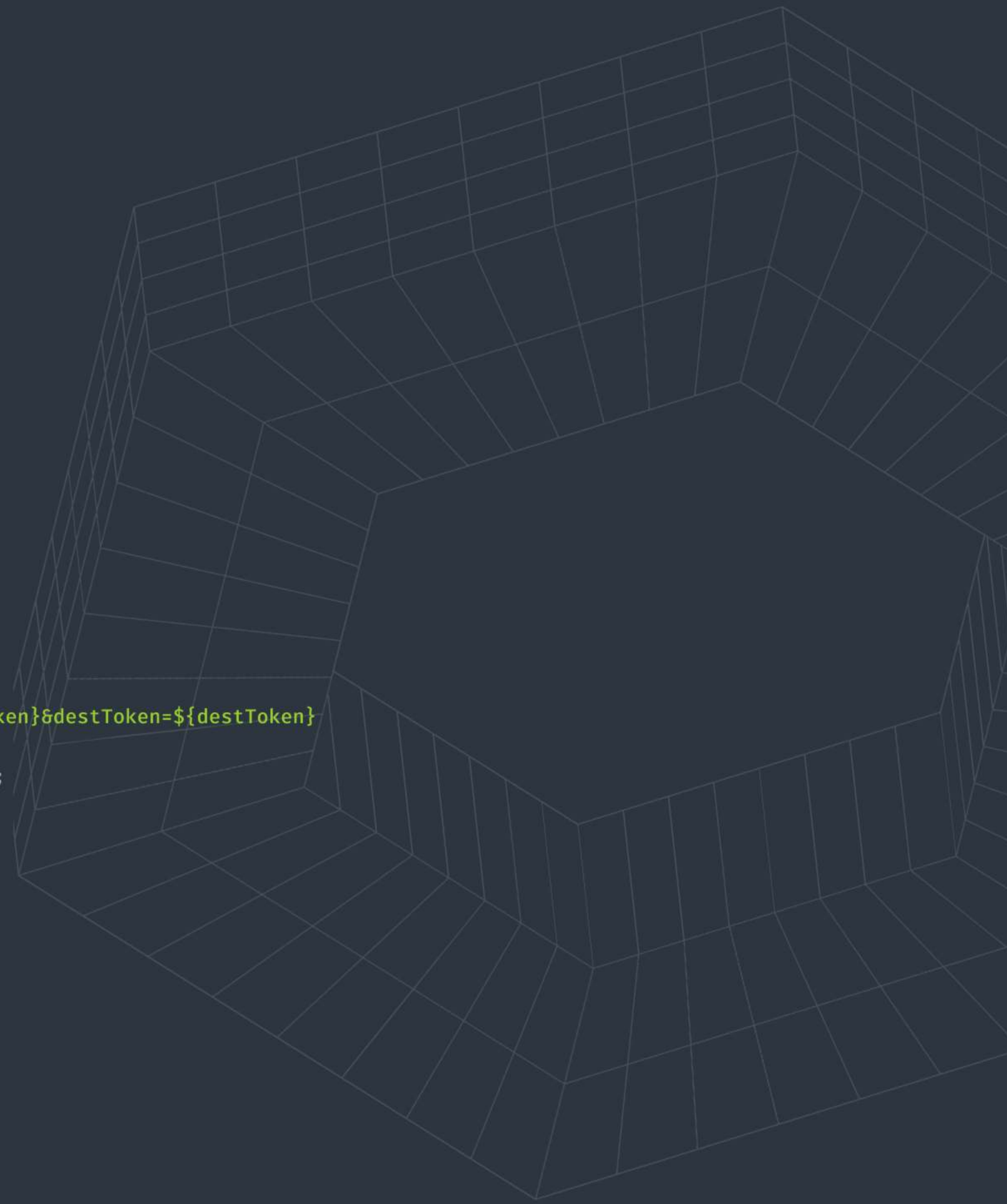
//trigger
console.automate(){
  flow.trigger_type = TIMER;
  flow.frequency = 720000; //ms
  return flow;
}

//fetch
console.functions.fetch(){
  flow.url = "api.dex.io/prices?srcToken=${srcToken}&destToken=${destToken}&amount=${amount}&network=1";
  flow.callback = (res) => {state.value = res; };
  return flow;
}

//compute

//consensus

//output
console.ccip.write(){
  flow.chain = ethereum;
  flow.address = _dest_addr;
  flow.amount = 0;
  flow.message = state.value;
  return flow;
}
```



Preview

Deploy

# Thank You

*Disclaimer: This presentation is for informational purposes only and contains statements about the future, including anticipated programs and features, developments, and timelines for the rollout of these programs and features. These statements are only predictions and reflect current beliefs and expectations with respect to future events; they are based on assumptions and are subject to risk, uncertainties, and change at any time. There can be no guarantee that any of the contemplated programs or features will be implemented as specified nor any assurance that actual results will not differ materially from those expressed in these statements, although we believe them to be based on reasonable assumptions. All statements are valid only as of the date first presented. The statements in this presentation also may not reflect future developments due to user feedback or later events and we may not update this presentation in response.*