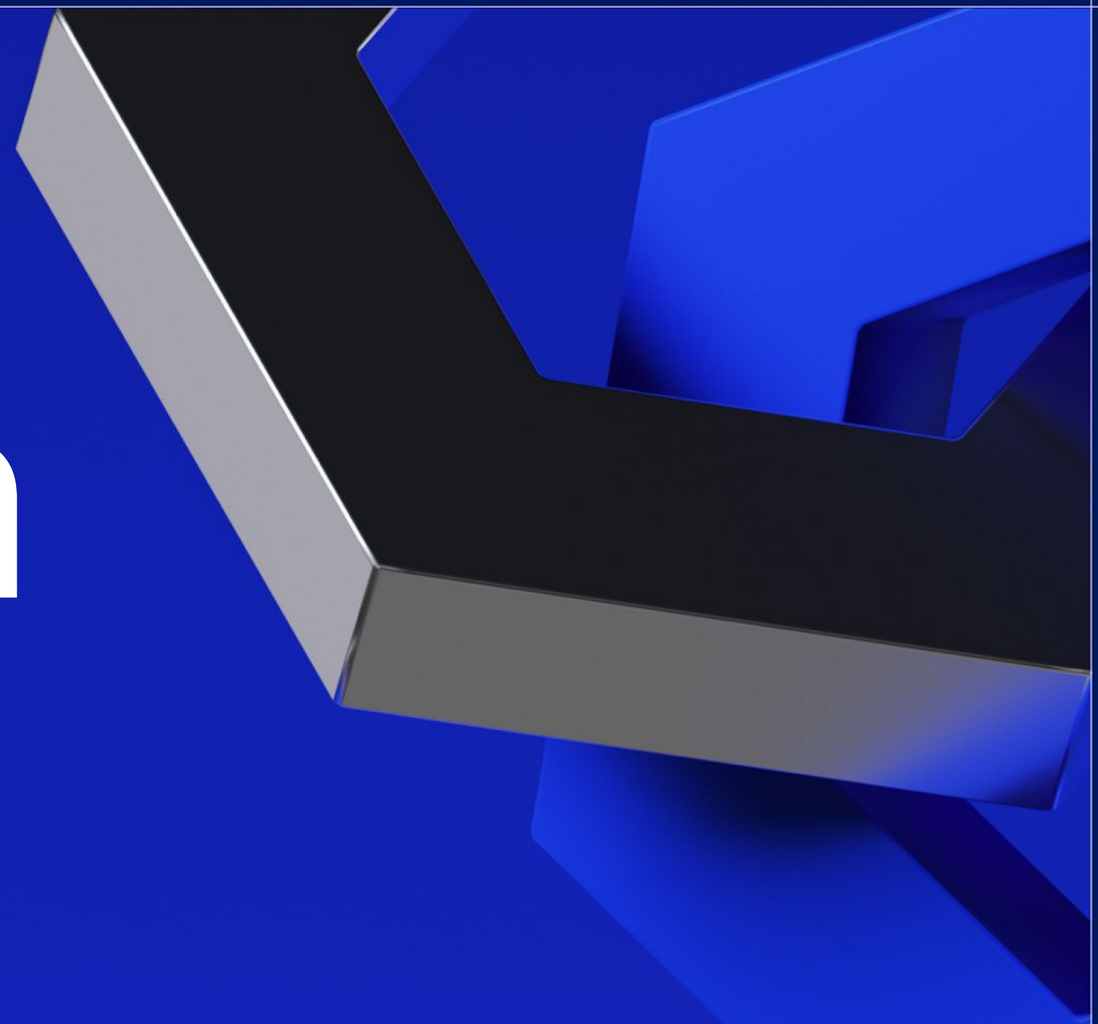
Chainlink

SmartCon 2025



Sergey Nazarov

Financial System Failures Stop Our Globally Connected Society

Dec. 3, 2001

Enron Corp. Files Largest U.S. Claim for Bankruptcy

The New York Times

March 2008

Bear Stearns investors: Who lost big

CNN

Sept. 15, 2008

Banking crisis: Lehman Brothers files for bankruptcy protection

The Guardian

June 25, 2020

Wirecard files for insolvency amid German accounting scandal

The Guardian

Nov. 11, 2022

Embattled Crypto Exchange FTX Files for Bankruptcy

The New York Times

March 17, 2023

Silicon Valley Bank's parent company files for bankruptcy

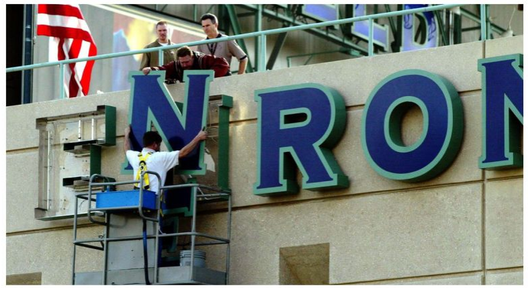
The Guardian

March 22, 2023

Credit Suisse collapse threatens Switzerland's wealth management crown

REUTERS

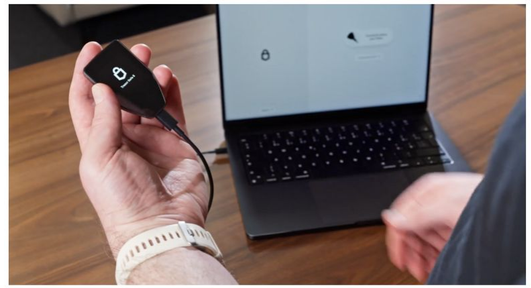
Creating a Cryptographically Guaranteed Financial System



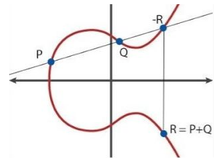
Legal/Paper Promises

ENRON LEHMAN BROTHERS svb Silicon Valley Bank

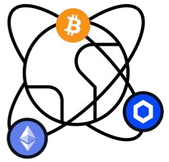
- Counterparty risk is opaque and higher
- Transparency is purposefully removed
- Key systems don’t operate as expected



Cryptographic/Mathematical Guarantees



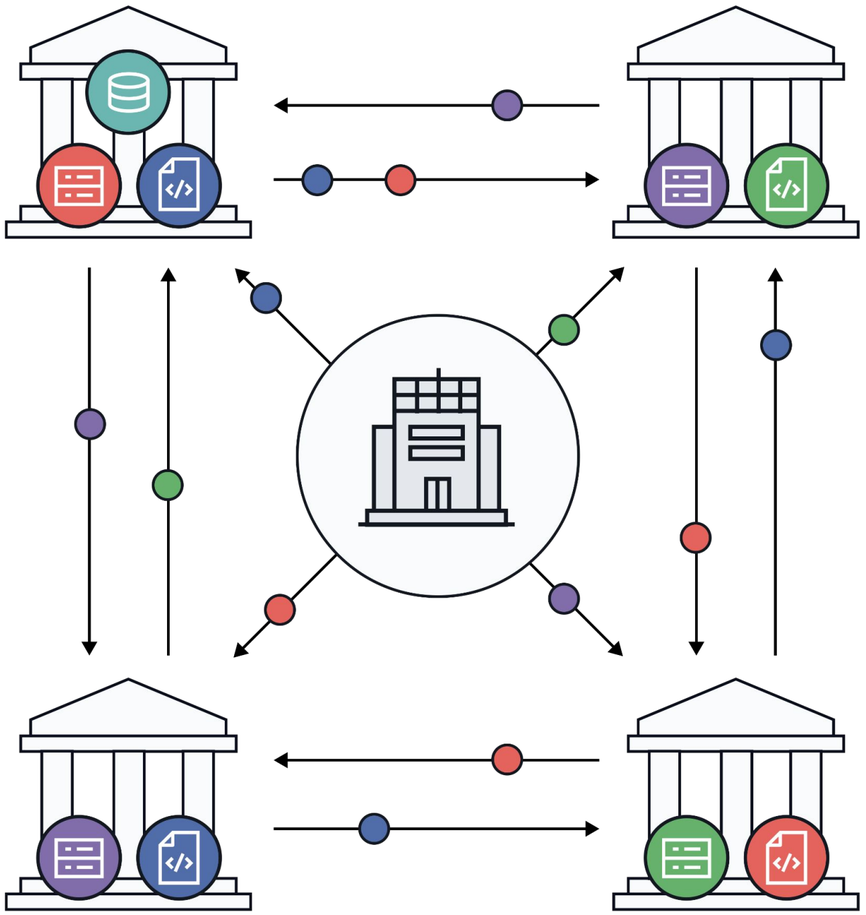
$$y^2 = x^3 + 7$$



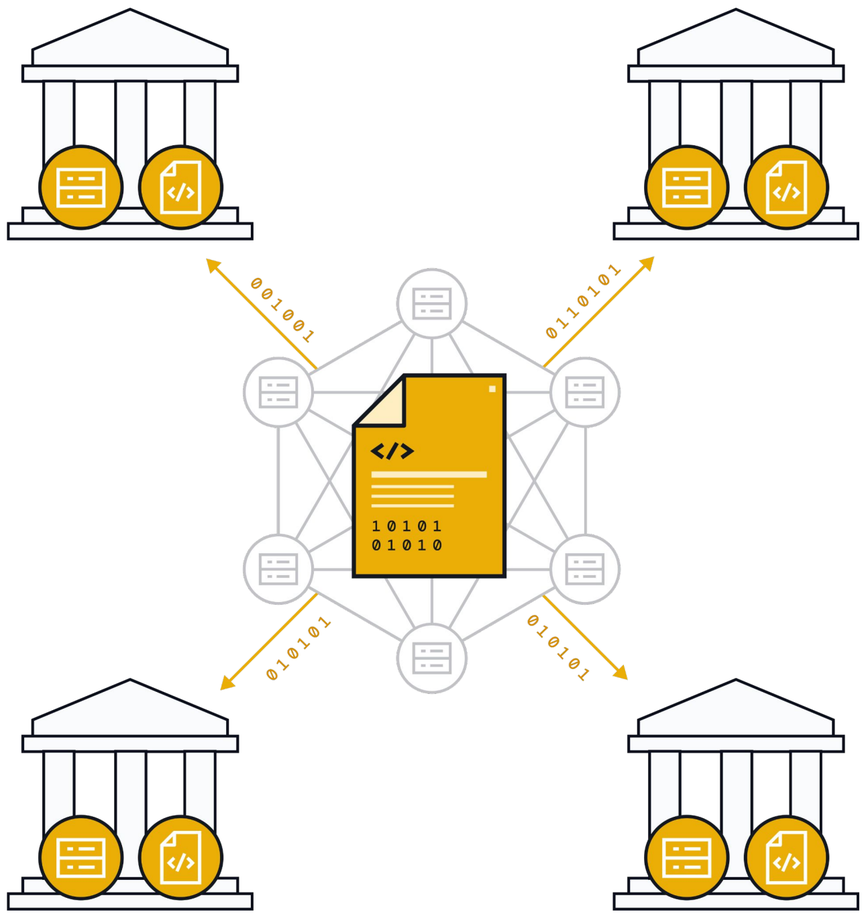
- Counterparty risk is transparent and lower
- Transparency is unavoidably built-in
- Key systems do operate as expected

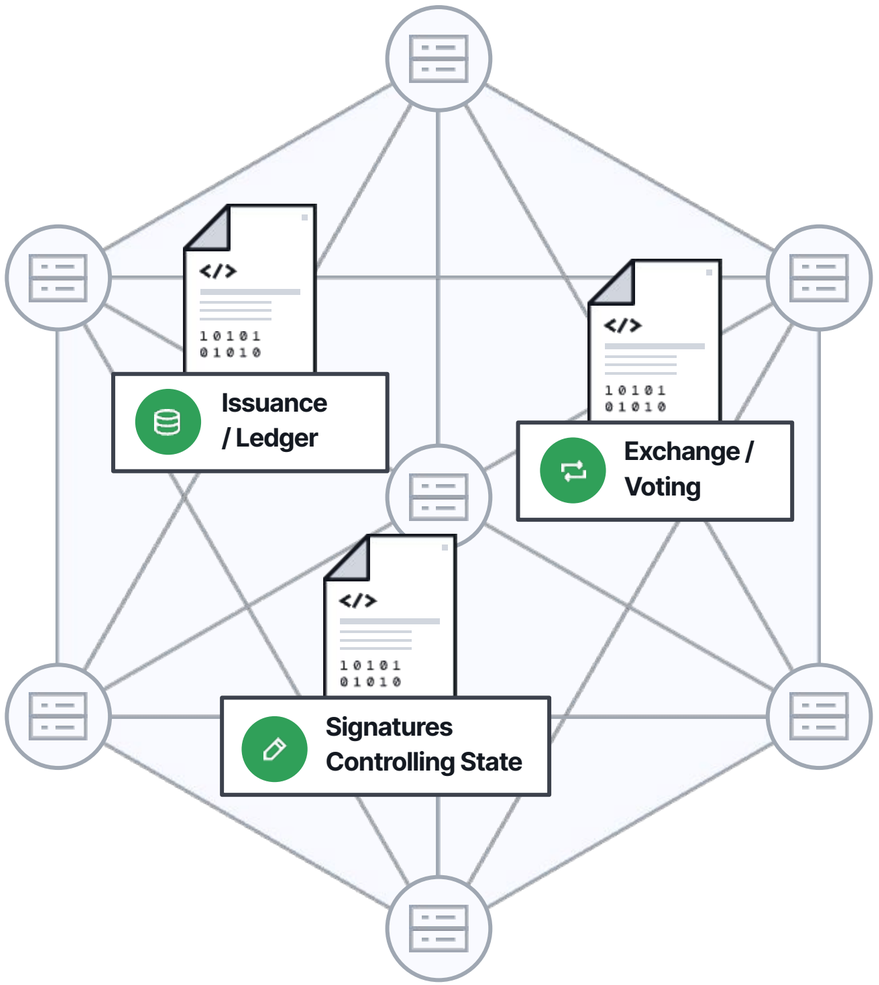
Creating a Single Golden Source of Truth On-Chain

Highly Siloed Transaction and Asset Data



Single Source Transactions are Efficient and Secure

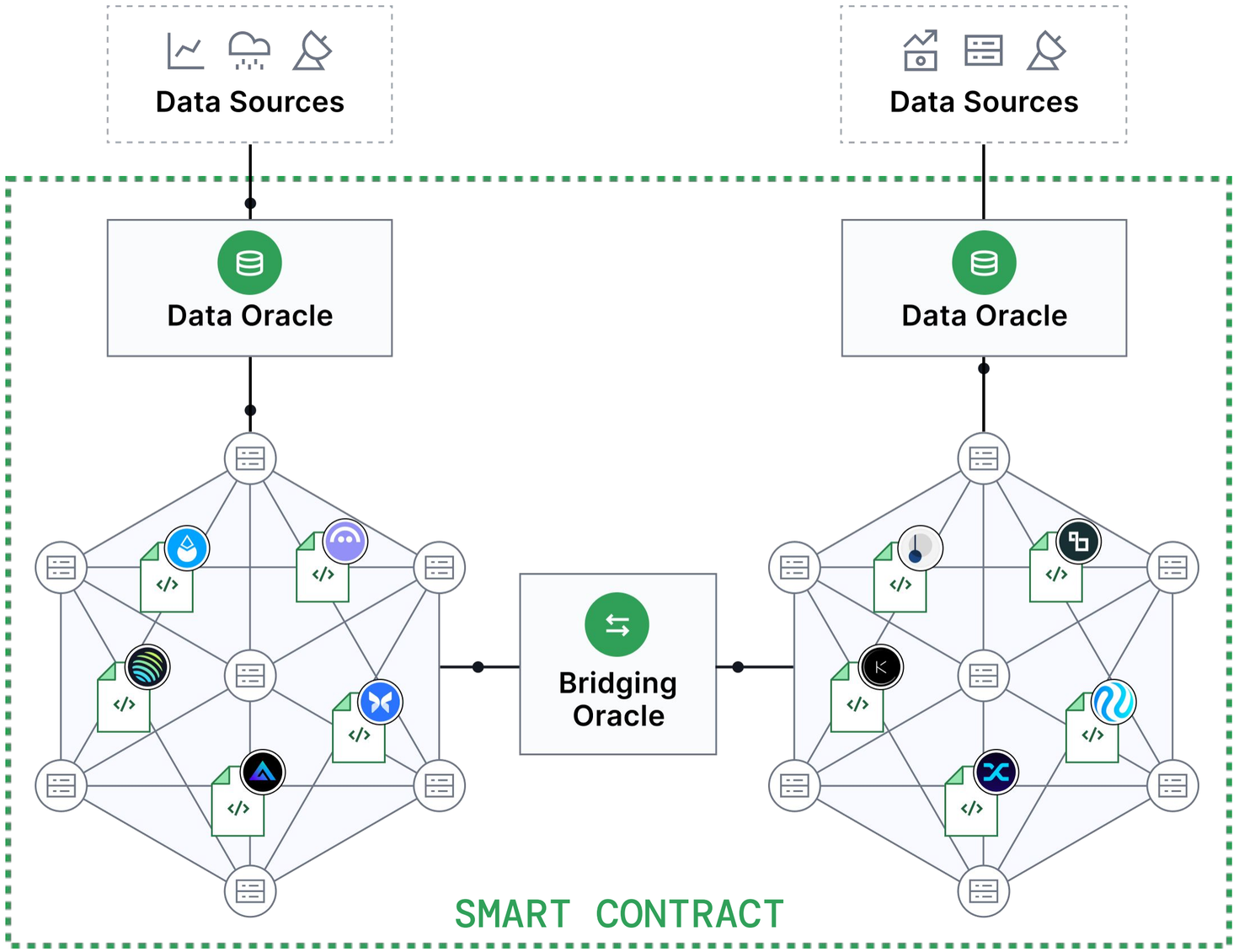




Smart Contracts V1

- Single Chain Environment
- Token Issuance/Ledger
- Exchange and Voting
- No External Data Needed
- No Cross Chain Needed
- No Identity/Compliance

✓ Tokenization	✗ Data	✗ Cross-Chain	✗ Identity / Compliance	✗ Privacy	✗ AI	✗ Orchestration



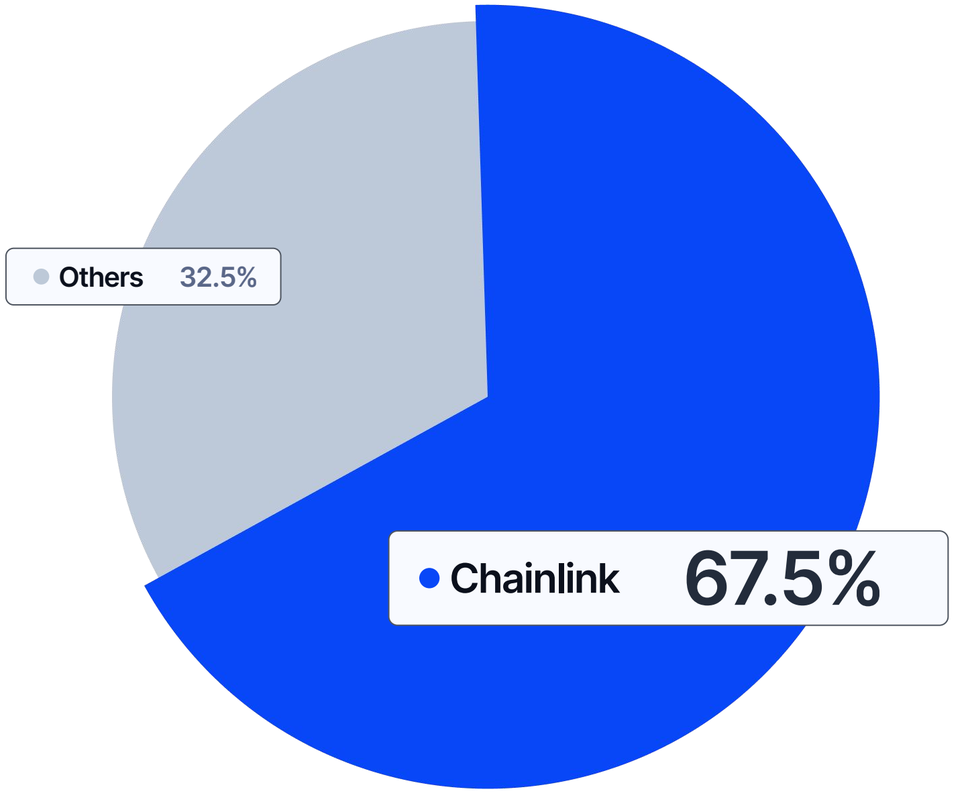
Smart Contracts V2

- DeFi Requires Data Feeds
- Multichain World Emerges
- Requires Data Oracles
- Requires Bridging Oracles
- No Identity/Compliance
- No Privacy Capabilities

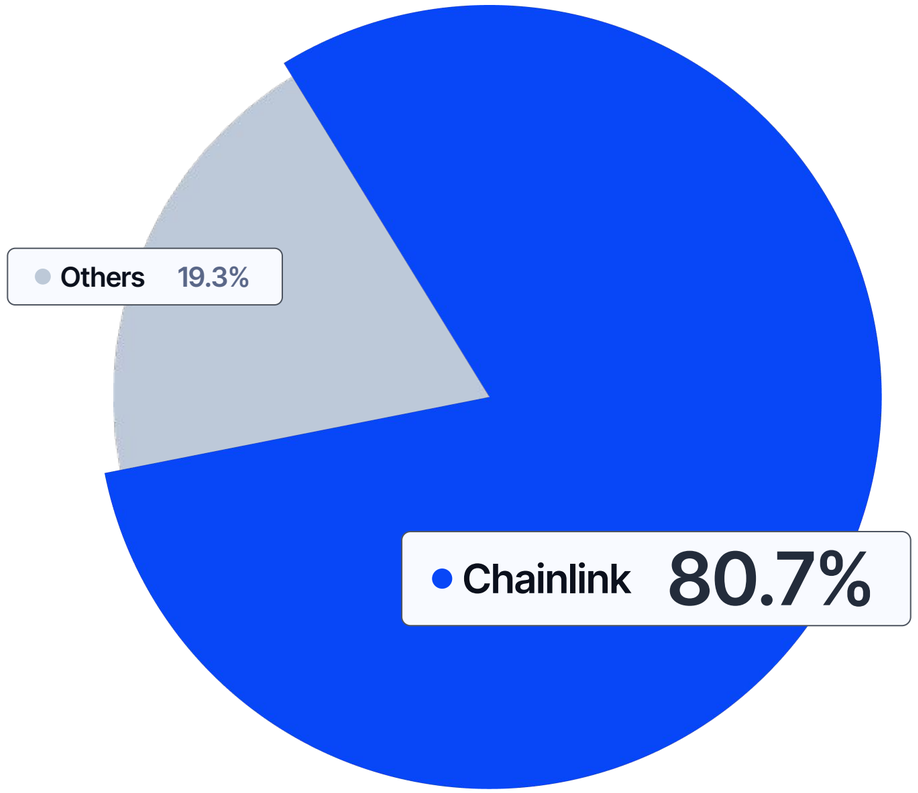
✓ Tokenization ✓ Data ✓ Cross-Chain ✗ Identity / Compliance ✗ Privacy ✗ AI ✗ Orchestration

Chainlink is Already The Global Standard for Oracles

Oracle Market Share: All Chains



Oracle Market Share: Ethereum



SOURCE: DEFILLAMA | AS OF NOV 3 2025

TRANSACTION VALUE ENABLED (TVE)

$26.4 Trillion

Powering the Global Blockchain Economy

aave · Jupiter · KAMINO · GMX · LIDO

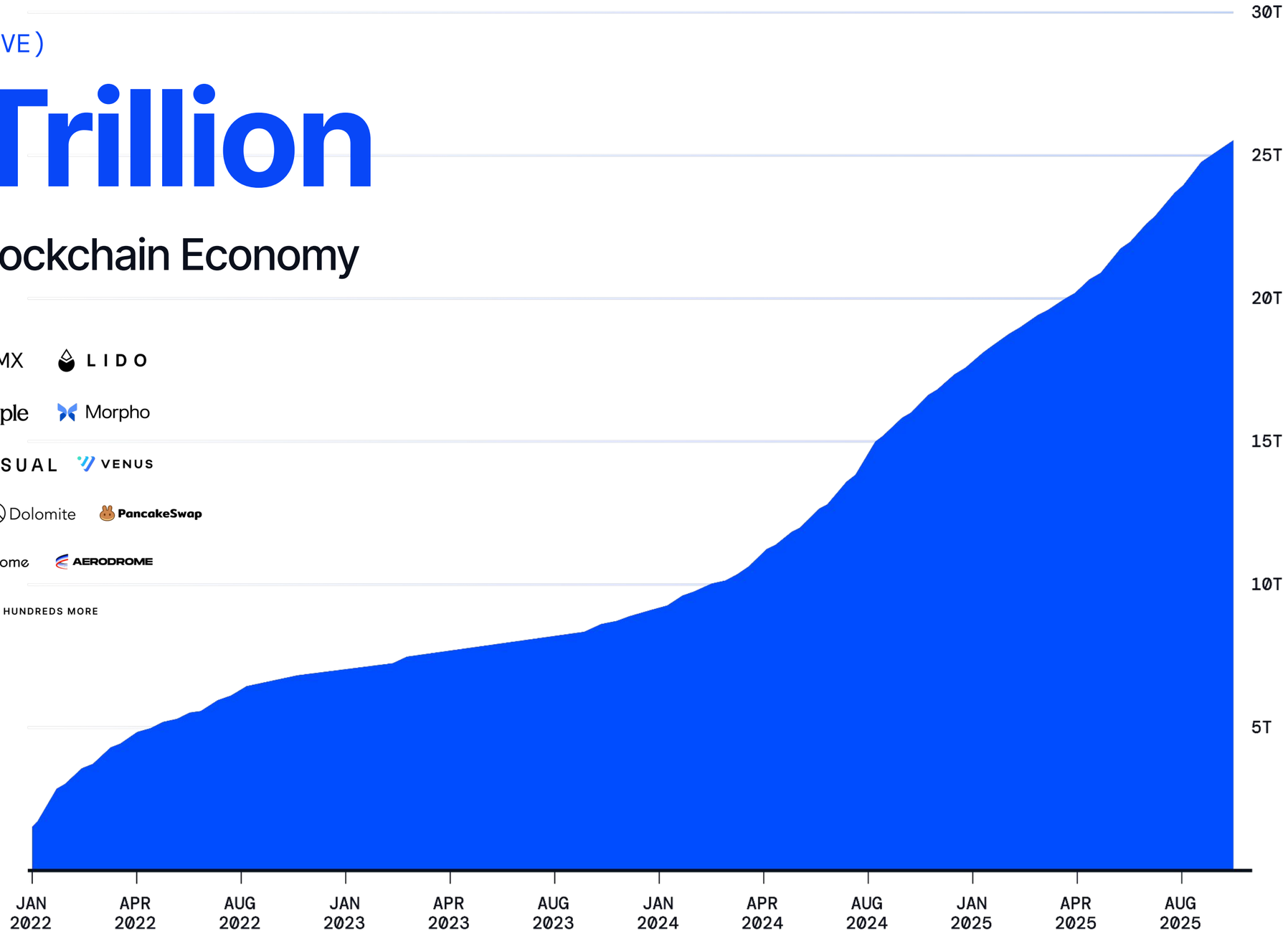
Spark · Compound · BACKED · Maple · Morpho

JustLend · BENQI · FLUID · Elixir · USUAL · VENUS

RENZO · CIAN · Avalon Labs · ANGLE · Dolomite · PancakeSwap

Lista DAO · Kelp · SPACEANDTIME · velodrome · AERODROME

FRAX · spiko · Nexus Mutual · SYNTHETIX · + HUNDREDS MORE



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

The CRE Enables Easy Implementation of Chainlink Standards

Decentralized Finance Applications and Smart Contracts

aave · KAMINO · LIDO · Compound · solv · LOMBARD · Jupiter · GMX · PENDLE · + Many More

Traditional Finance Applications and Smart Contracts

Swift · J.P.Morgan · UBS · SBI Digital Markets · mastercard · Bancolombia · ANZ · APEX · euroclear · + Many More

Chainlink Services, Built on Top of Chainlink Standards, Running in the Chainlink Runtime Environment

Data Feeds	Cross-Chain Token (CCT)	Cross-Chain Identity (CCID)	Blockchain Privacy Manager (BPM)	Digital Transfer Agent (DTA) Technical Standard
Data Streams	Cross-Chain Token Transfers	Monitoring & Reporting Manager	Private Transactions	Delivery Versus Payment (DvP) End-to-End Solution
DataLink	Cross-Chain Messaging	Policy Manager	DECO	Automated Compliance Engine (ACE) End-to-End Solution
SmartData Proof of Reserves | NAV Data | + More	Programmable Token Transfers	Identity Manager	Confidential Compute	
Onchain Data Protocol (ODP)	**Cross Chain Interoperability Protocol (CCIP)**	**Compliance Standard**	**Privacy Standard**	+ Many more standards to come

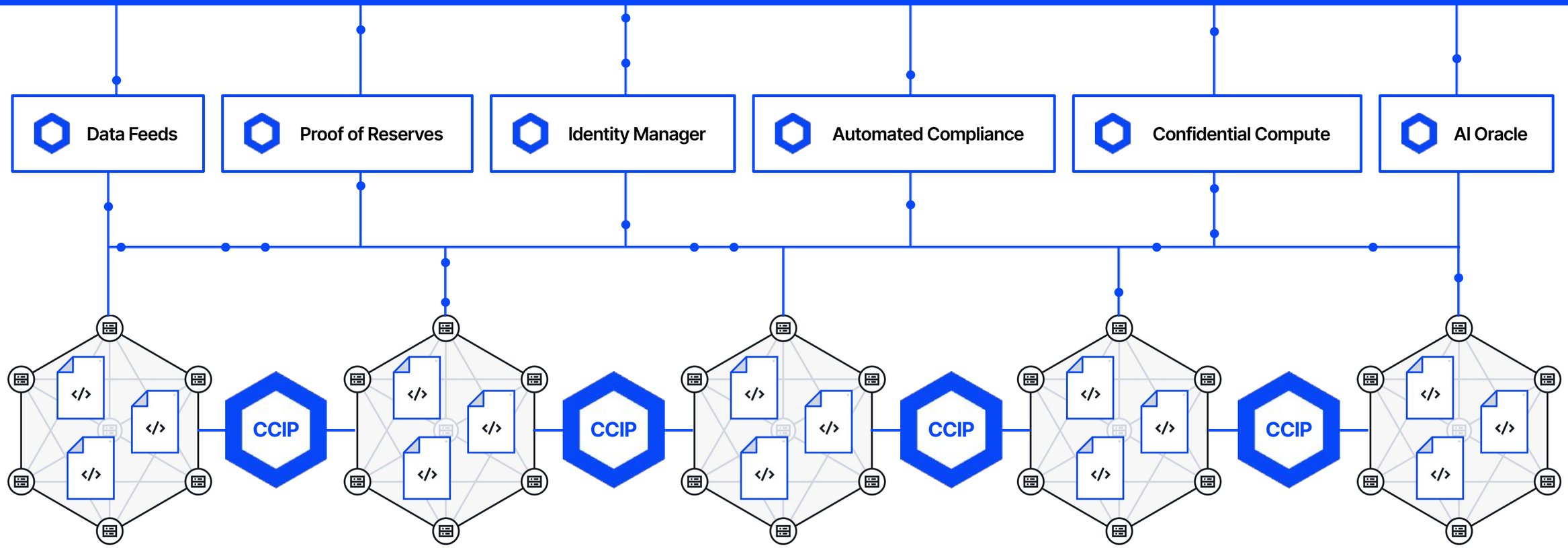
Chainlink Runtime Environment (CRE)

Workflows | External System Integration | Developer Tooling

Thousands of Public and Private Blockchains

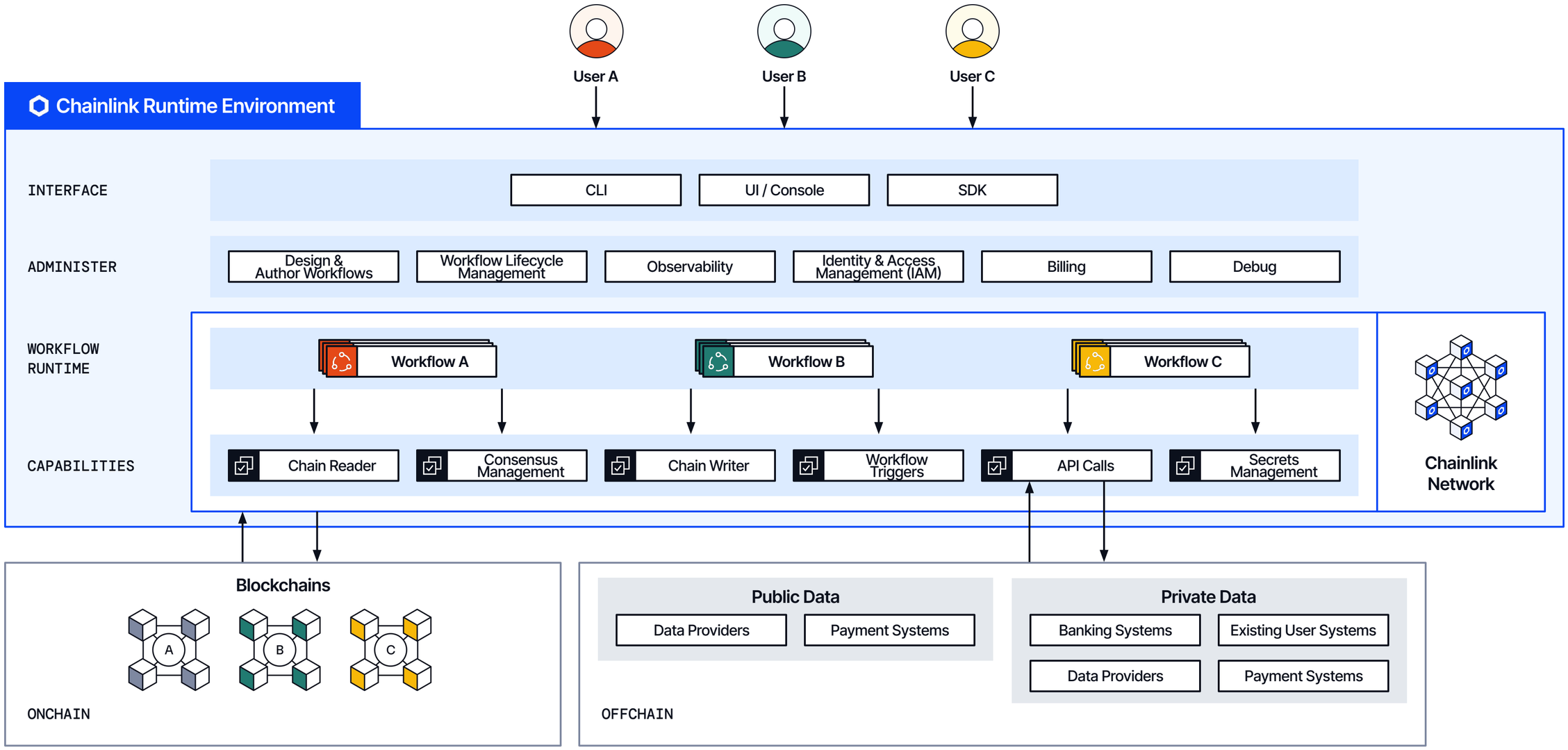
+ Many More

Chainlink Runtime Environment (CRE): Smart Contract and Oracle Orchestration

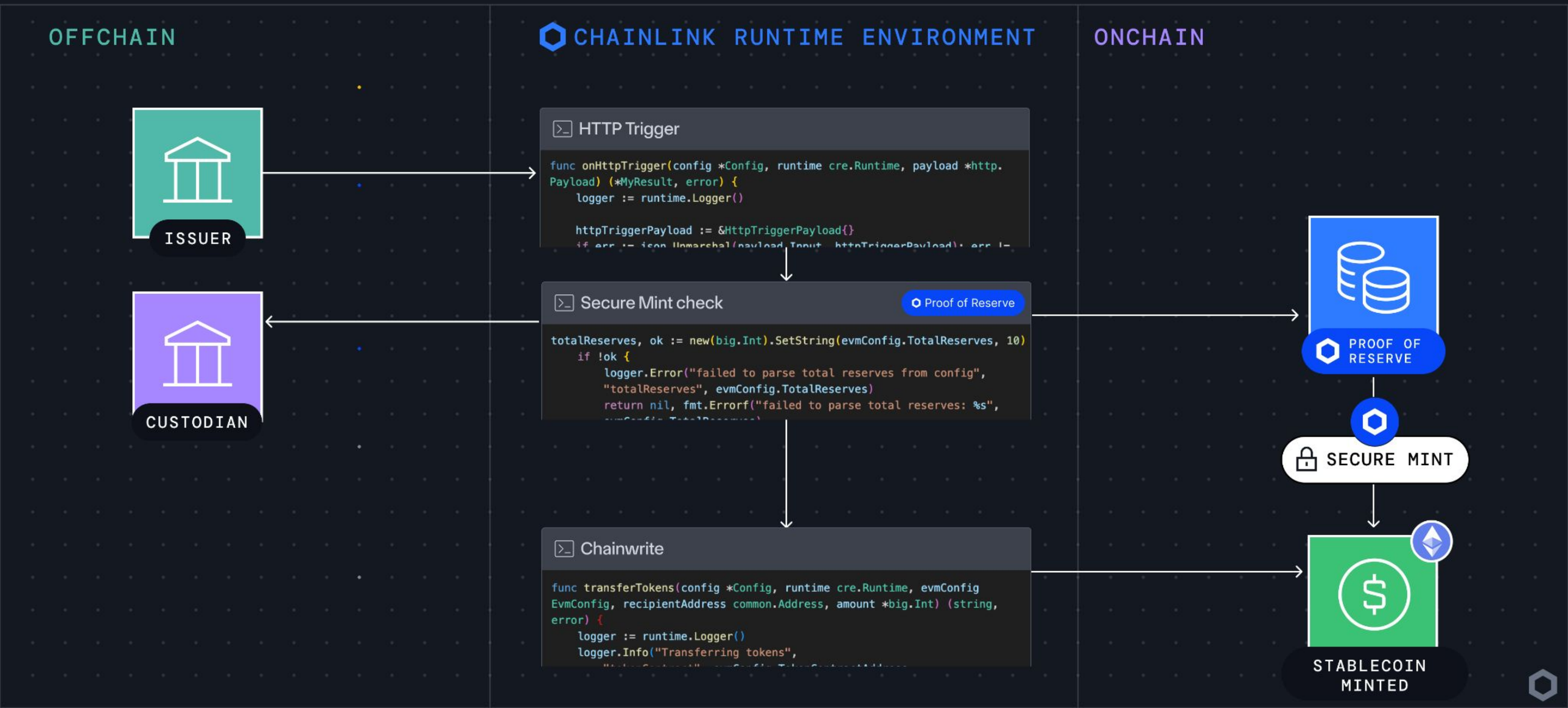


- Tokenization
- Data
- Cross-Chain
- Identity / Compliance
- Privacy
- AI
- Orchestration

Chainlink Runtime Environment (CRE) Architecture



Verification of Reserves and Minting of Stablecoins Based on Real Reserves



Compliance Checks for Stablecoin Transfers to Approved Users

OFFCHAIN

CHAINLINK RUNTIME ENVIRONMENT

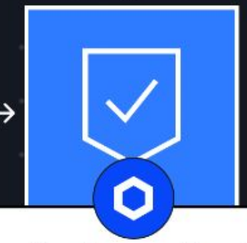
ONCHAIN

ISSUER POLICY CHECK

Update policy — ACE

```
txHash, err := updatePolicy(config, runtime, chainSelector, evmConfig,
offchainValue, onchainValue, finalResultInt)
if err != nil {
    return nil, fmt.Errorf("failed to update calculator result: %w", err)
}

finalWorkflowResult := &MyResult{
    OffchainValue: offchainValue,
    OnchainValue:  onchainValue,
```



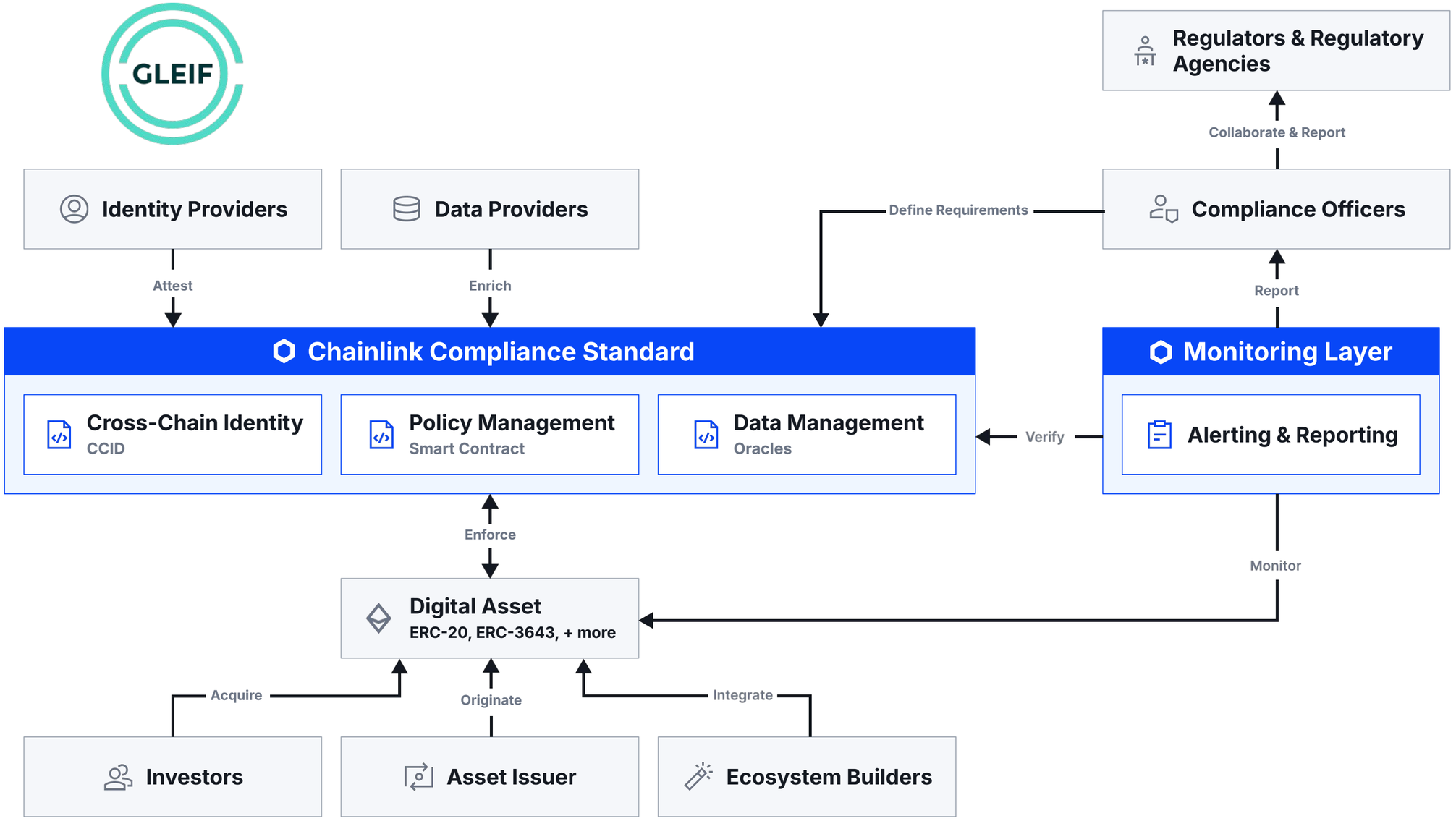
Automated Compliance Engine (ACE)

Send stablecoins — CCIP

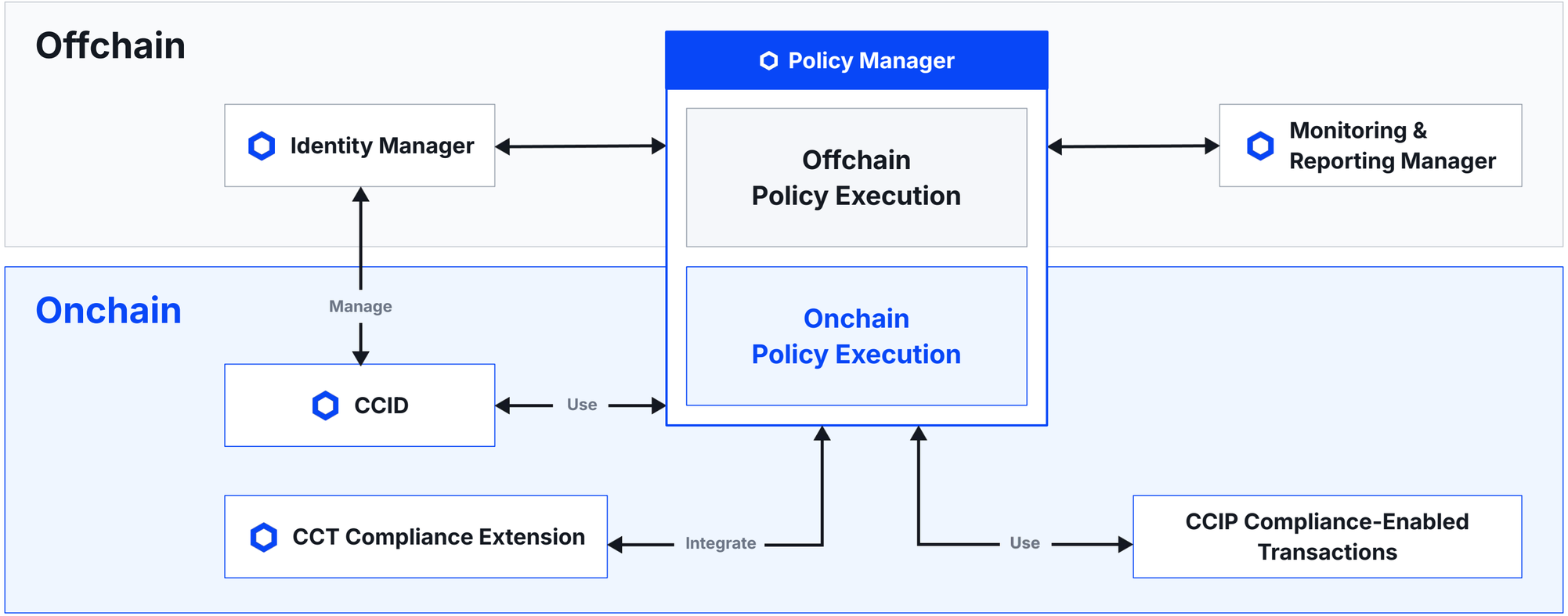
```
func ccipSend(config *Config, runtime cre.Runtime, evmConfig EvmConfig,
amount *big.Int, recipientAddress common.Address) (string, error) {
    logger := runtime.Logger()
    logger.Info("Calling ccipSend",
        "ccipContract", evmConfig.CcipContractAddress,
        "recipient", recipientAddress.Hex(),
        "amount", amount)

    evmClient := &evm.Client{
```

Compliance Across Chains and Across Token Standards



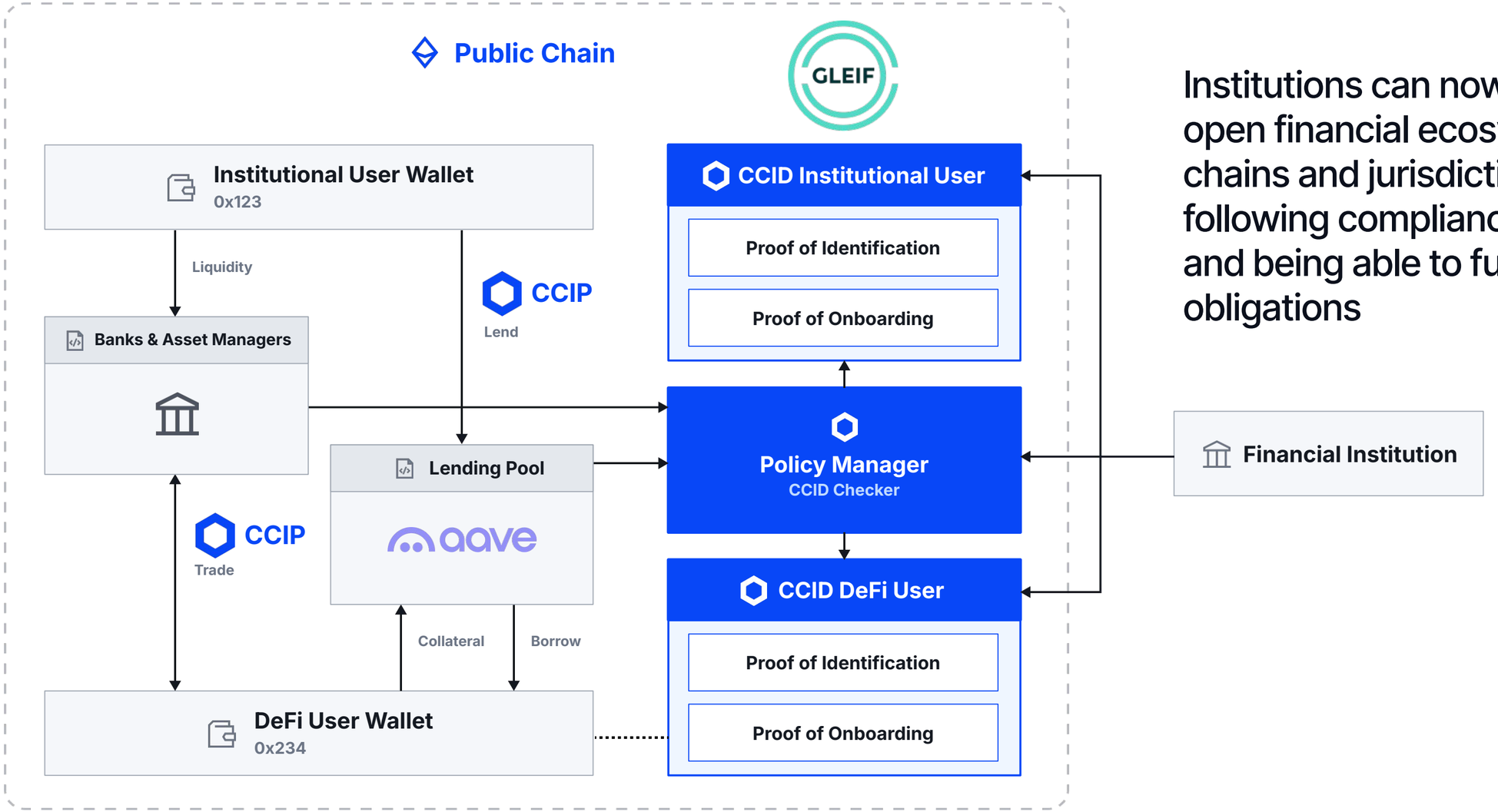
Identity Management, Policy Enforcement, and Reporting Across Blockchains and Various Digital Asset Regulations



- Asset and jurisdiction-agnostic
- Modularity and composability design
- External policy connectivity
- Auditable transaction log

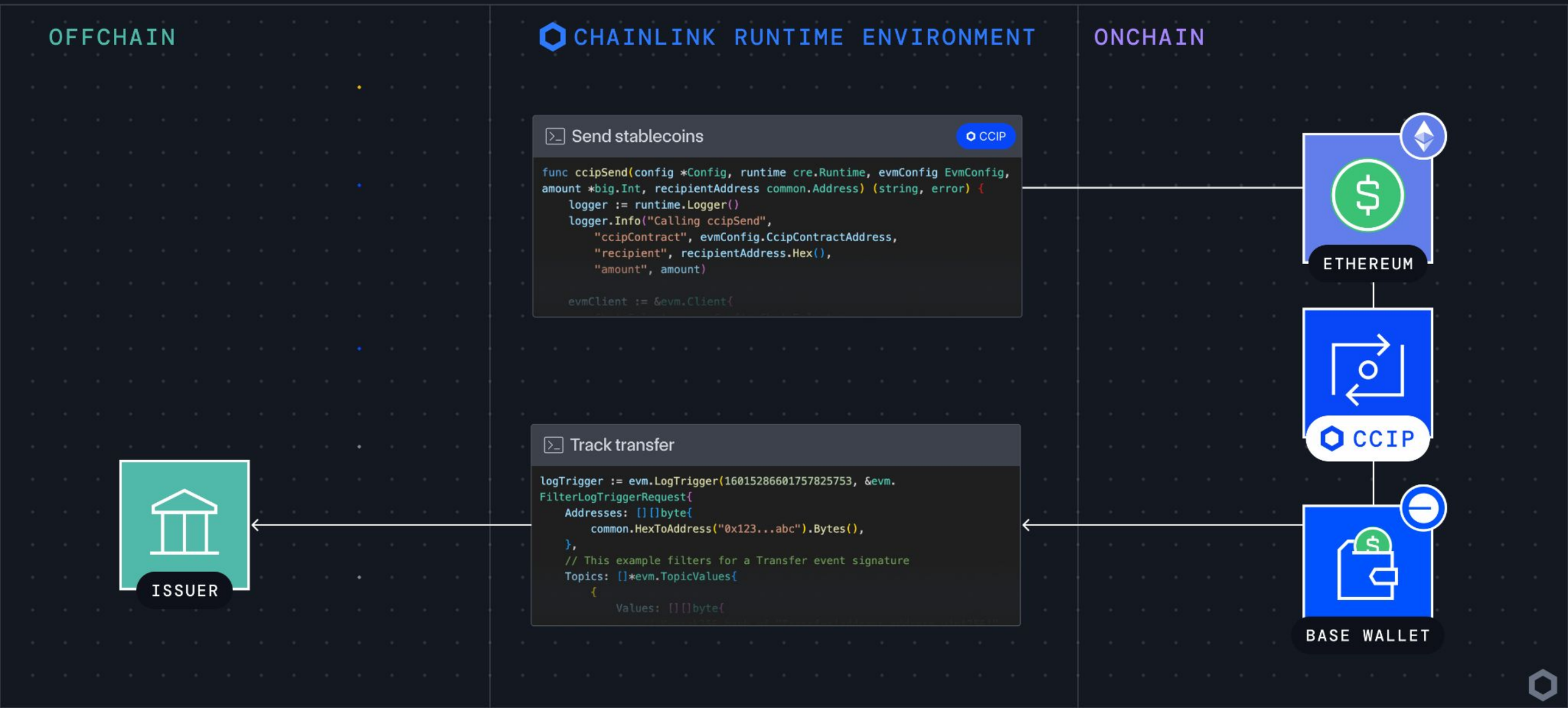
USE CASE

Enabling Cross-Chain Institutional to DeFi Transactions

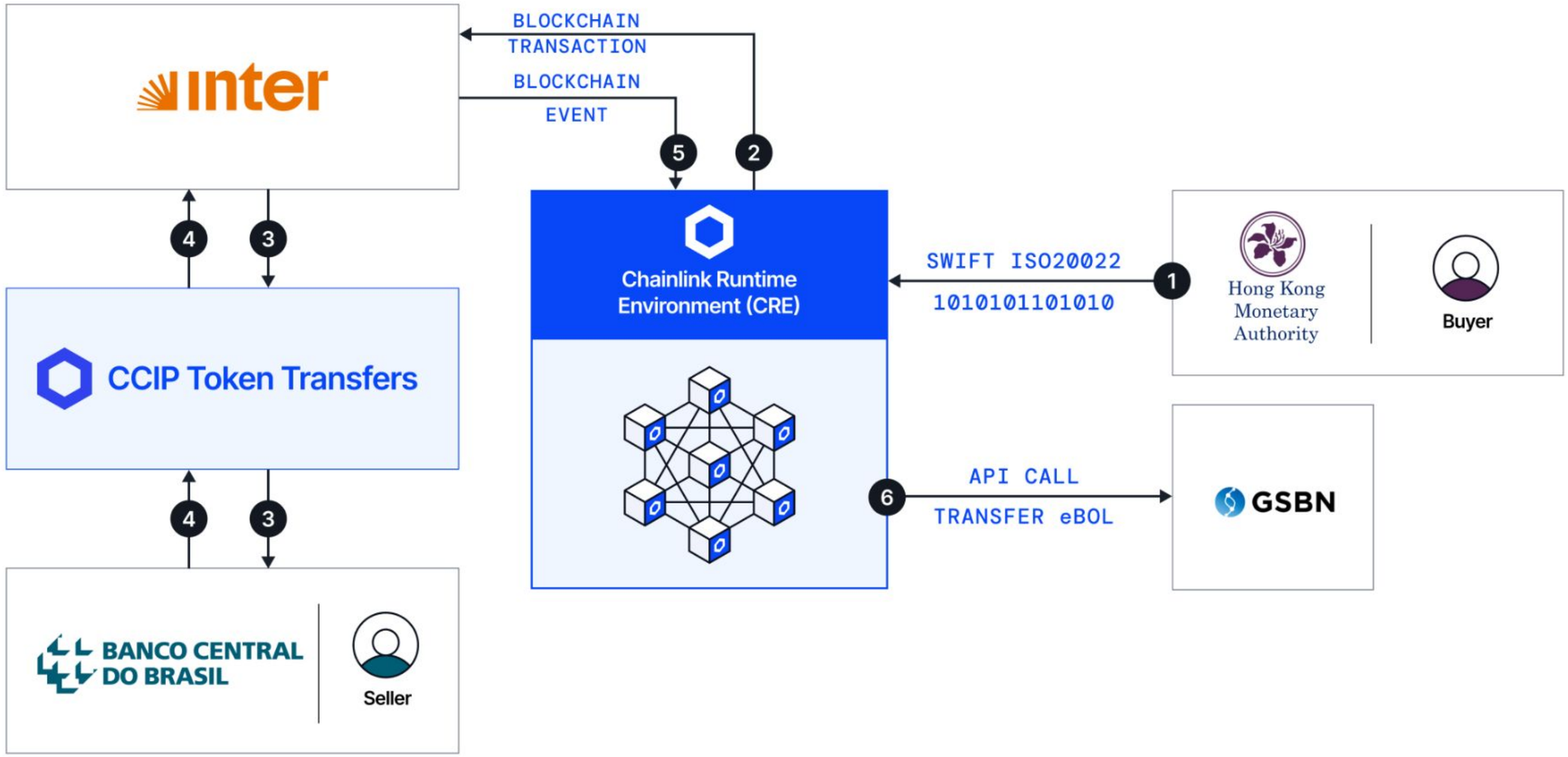


Institutions can now participate in an open financial ecosystem across chains and jurisdictions while following compliance requirements and being able to fulfill their regulatory obligations

Movement of Stablecoins to Users Across Various Chains via CCIP

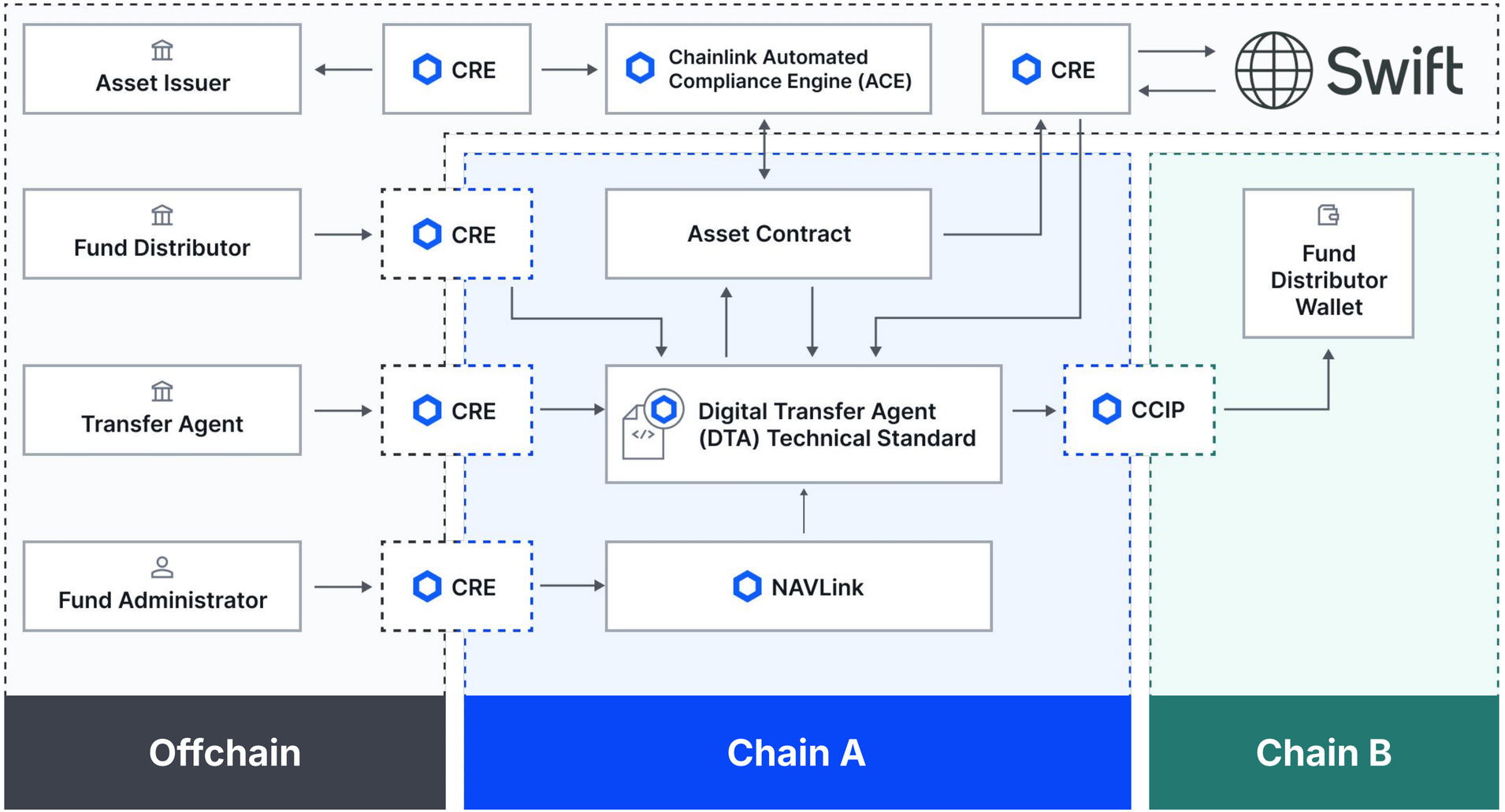


Central Bank of Brazil and HKMA Utilizing CRE and CCIP for Global Trade Flows

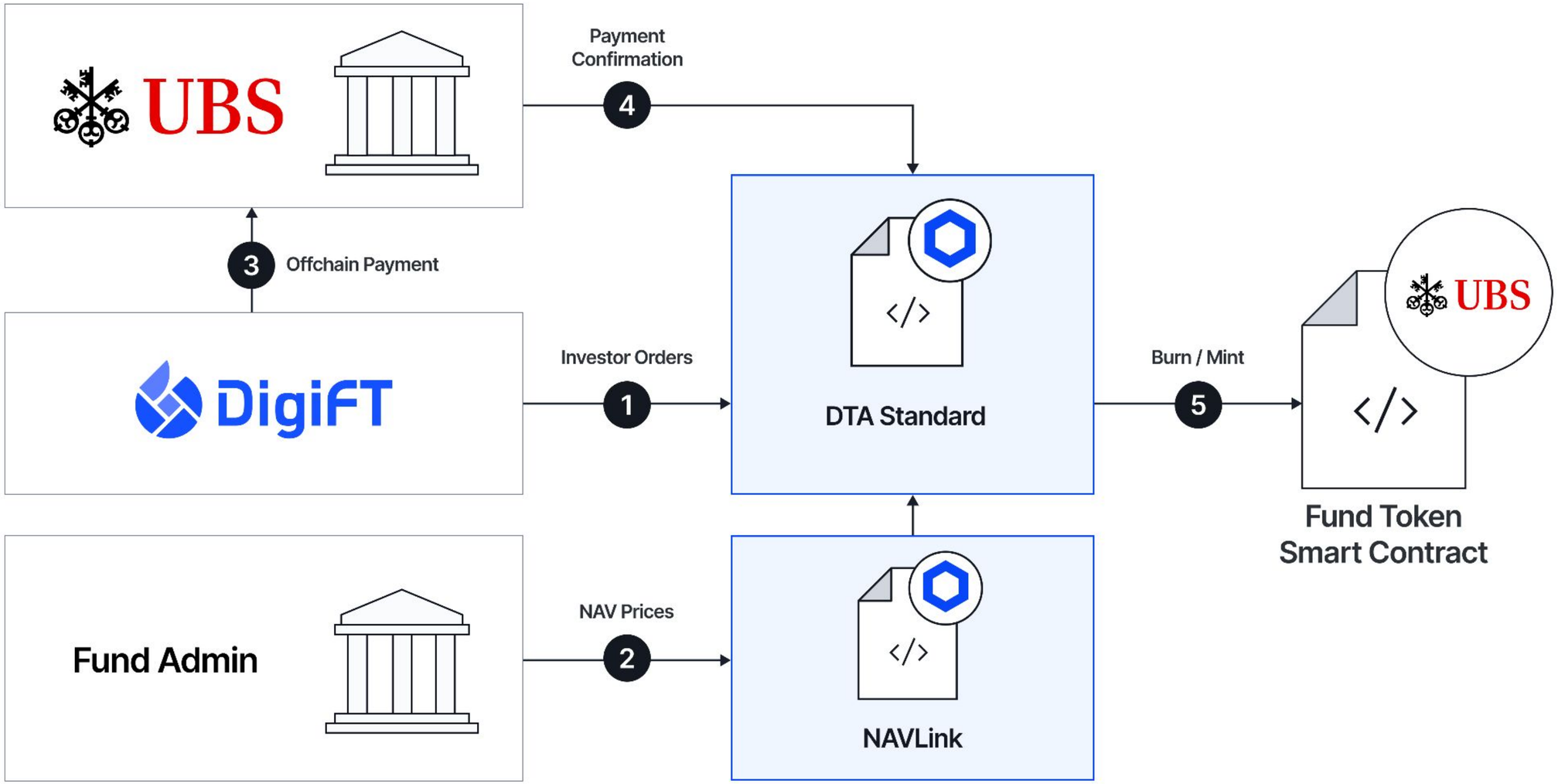


1. Initiate DvP
2. CRE forwards payment instruction to Inter Bank
3. Inter Bank forwards payment to Banco Central Do Brasil through CCIP
4. Banco Central Do Brasil forwards payment confirmation to Inter Bank through CCIP
5. Banco Central Do Brasil forwards payment confirmation to Inter Bank through CCIP
6. Transfer Electronic Bill of Lading

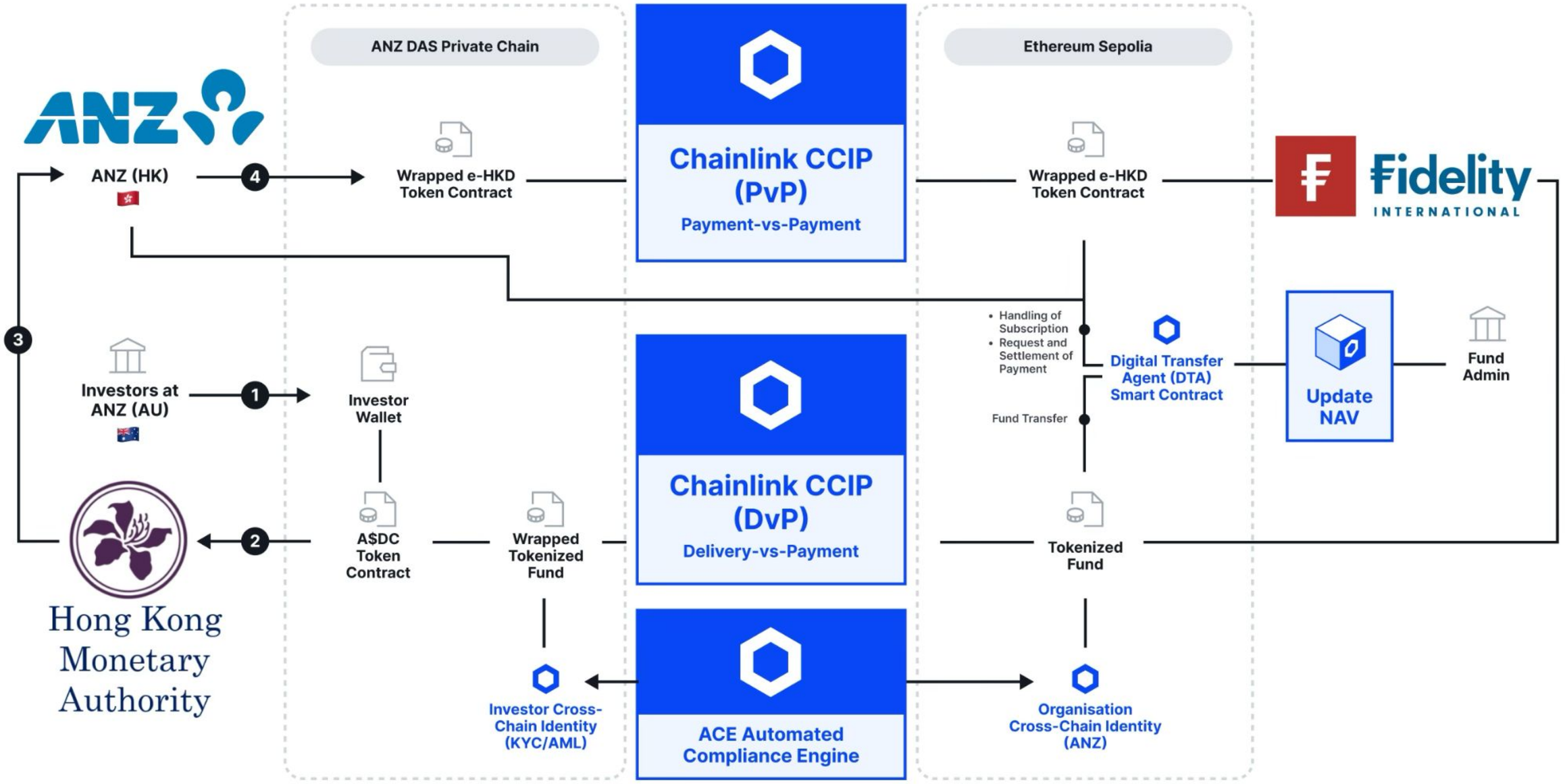
Streamlined Subscriptions and Redemptions Processing Across Transfer Agents, Blockchains and Swift Payments



UBS Tokenized Funds Using Chainlink Standards



Fund Tokenization, Delivery of Assets Cross-Chain with Automated Compliance

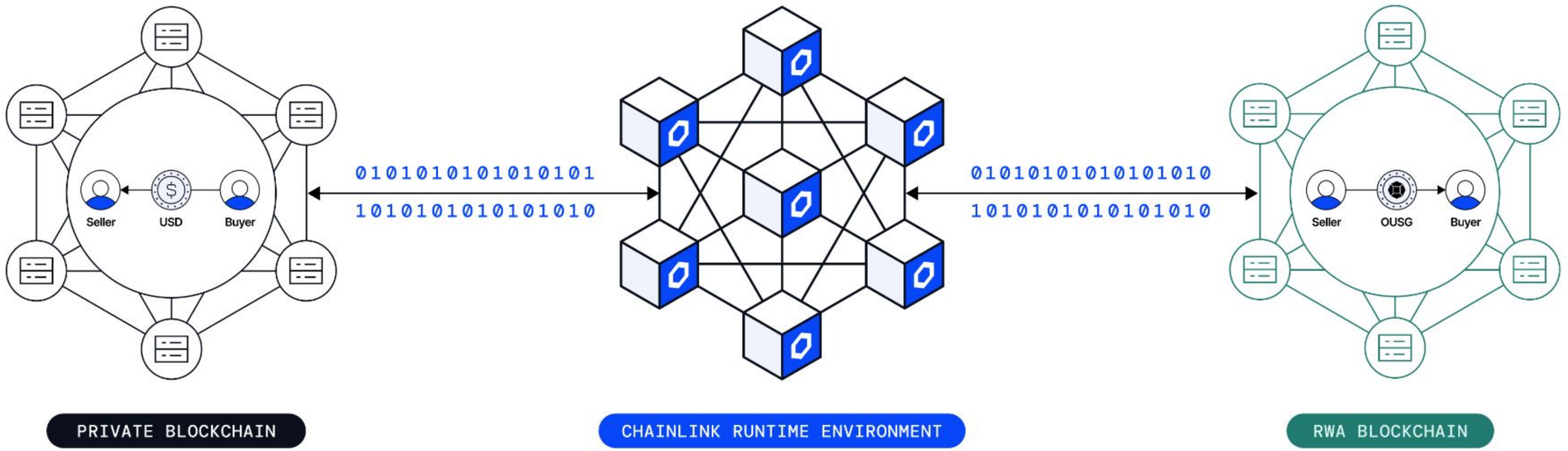


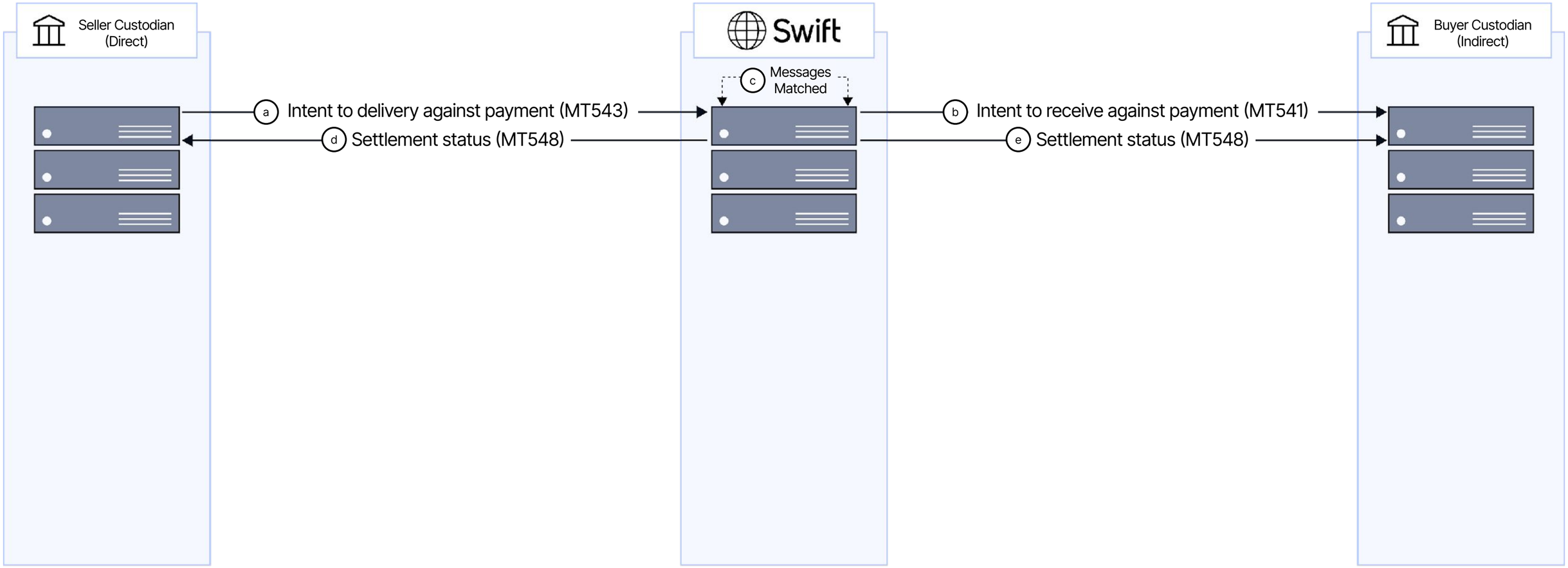
Private and Public Chains Interoperating via CRE

kinexys by J.P.Morgan

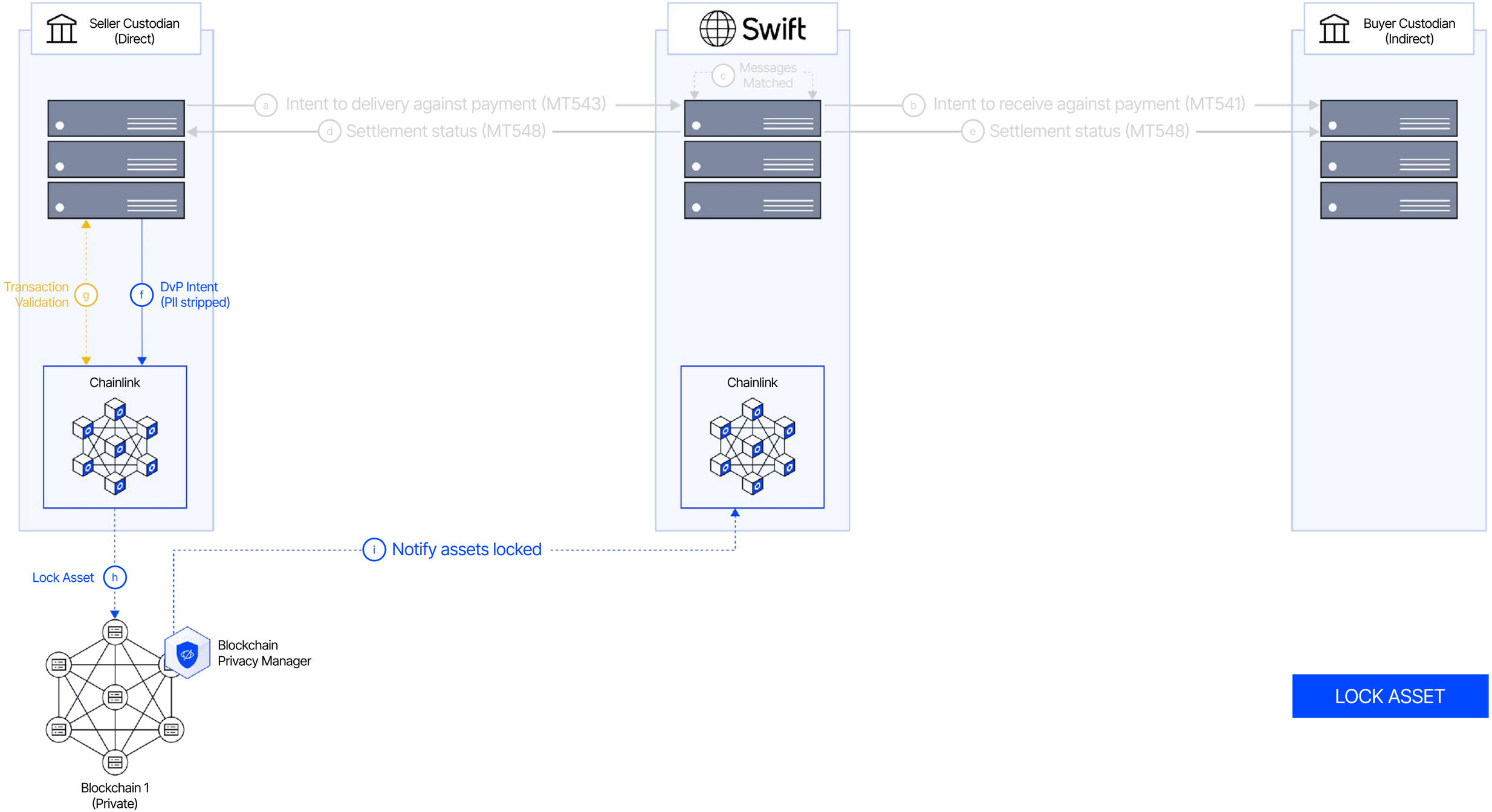
Chainlink

Ondo Chain





PRE SETTLEMENT


Seller Custodian
(Direct)
Swift
Buyer Custodian
(Indirect)
c Messages Matched
a Intent to delivery against payment (MT543)
b Intent to receive against payment (MT541)
d Settlement status (MT548)
e Settlement status (MT548)
Transaction Validation g
f DvP Intent (PII stripped)
Chainlink
Chainlink
i Notify assets locked
Lock Asset h
Blockchain Privacy Manager
Blockchain 1 (Private)
LOCK ASSET

Esc

DvP | Direct to direct

Seller (YOU)
Custodian 1 DIRECT

Swift
Messaging Network

Buyer
Custodian 2 DIRECT

Pre Settlement

Settlement

Lock Asset

Seller's back office

Back Office 6:22:43 AM
Sent - Settlement instruction status (MT548)

Chainlink Platform

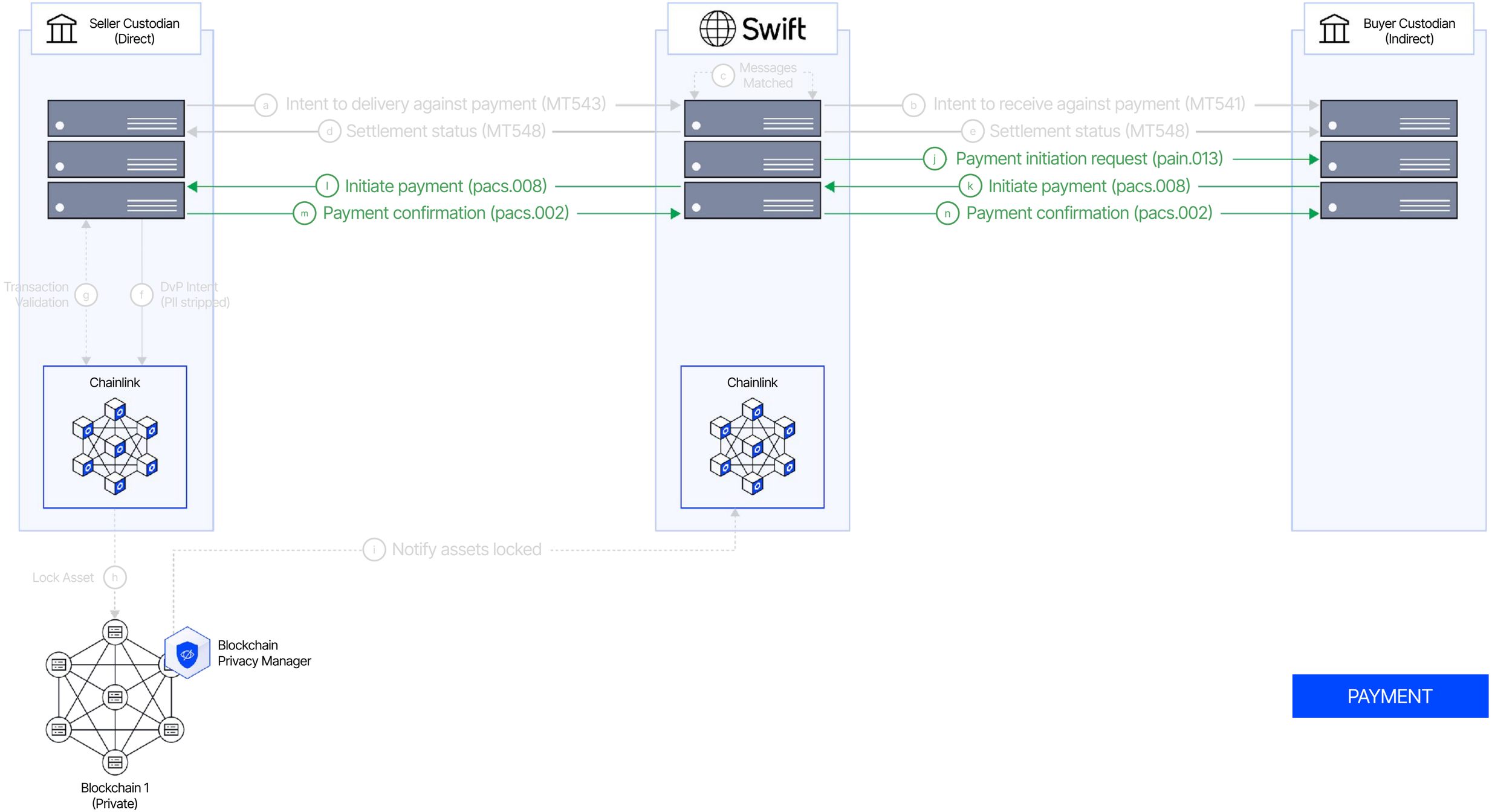
Chainlink 6:23:43 AM
Received - Settlement instruction status (MT548)

Chainlink 6:24:43 AM
Swift Message Transformation - PII removed

Chainlink 6:25:43 AM
Account Mapping - accounts:address

Chainlink | ONCHAIN 6:26:43 AM
Blockchain Transaction(write) - Asset locked

Chainlink | ONCHAIN 6:27:43 AM
Blockchain Transaction(read) - Asset locked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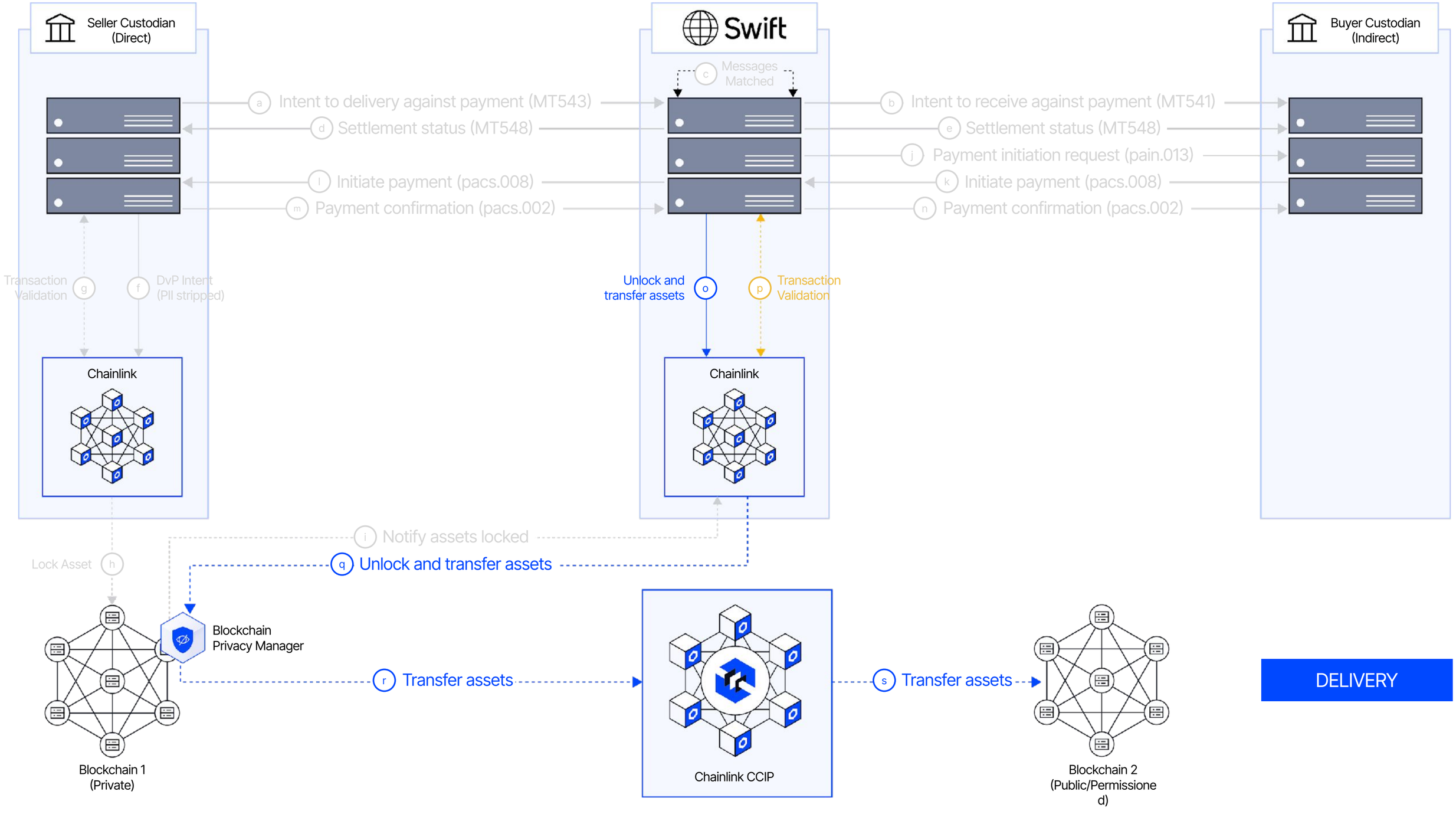
d Settlement status (MT548)
e Settlement status (MT548)
j Payment initiation request (pain.013)
l Initiate payment (pacs.008)
k Initiate payment (pacs.008)
m Payment confirmation (pacs.002)
n Payment confirmation (pacs.002)
Transaction Validation g
f DvP Intent (PII stripped)
Chainlink
Chainlink
i Notify assets locked
Lock Asset h
Blockchain
Privacy Manager
Blockchain 1
(Private)
PAYMENT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Transaction Validation g
f DvP Intent (PII stripped)
Unlock and transfer assets o
p Transaction Validation
Chainlink
Chainlink
i Notify assets locked
Lock Asset h
q Unlock and transfer assets
Blockchain Privacy Manager
r Transfer assets
Chainlink CCIP
s Transfer assets
Blockchain 1 (Private)
Blockchain 2 (Public/Permissioned)
DELIVERY

Esc

DvP | Direct to direct

Seller (YOU)
Custodian 1 DIRECT

Swift
Messaging Network

Buyer
Custodian 2 DIRECT

Delivery

Chainlink 6:48:43 AM
Swift Message Transformation - PII removed

Chainlink | ONCHAIN 6:49:43 AM
Blockchain Transaction(write) - Asset unlock & transfer

Chainlink | ONCHAIN 6:50:43 AM
Blockchain Transaction(read) - Asset delivered

Chainlink 6:51:43 AM
Sent - Receive against payment confirmation (MT545)

Buyer's back office

Back Office 6:52:43 AM

Blockchain Transaction(write) - Asset unlock & transfer Chainlink | ONCHAIN

6:49:43 AM Hide details

NYPA00

CUSTUS22

Seller BIC
CUSTUS11

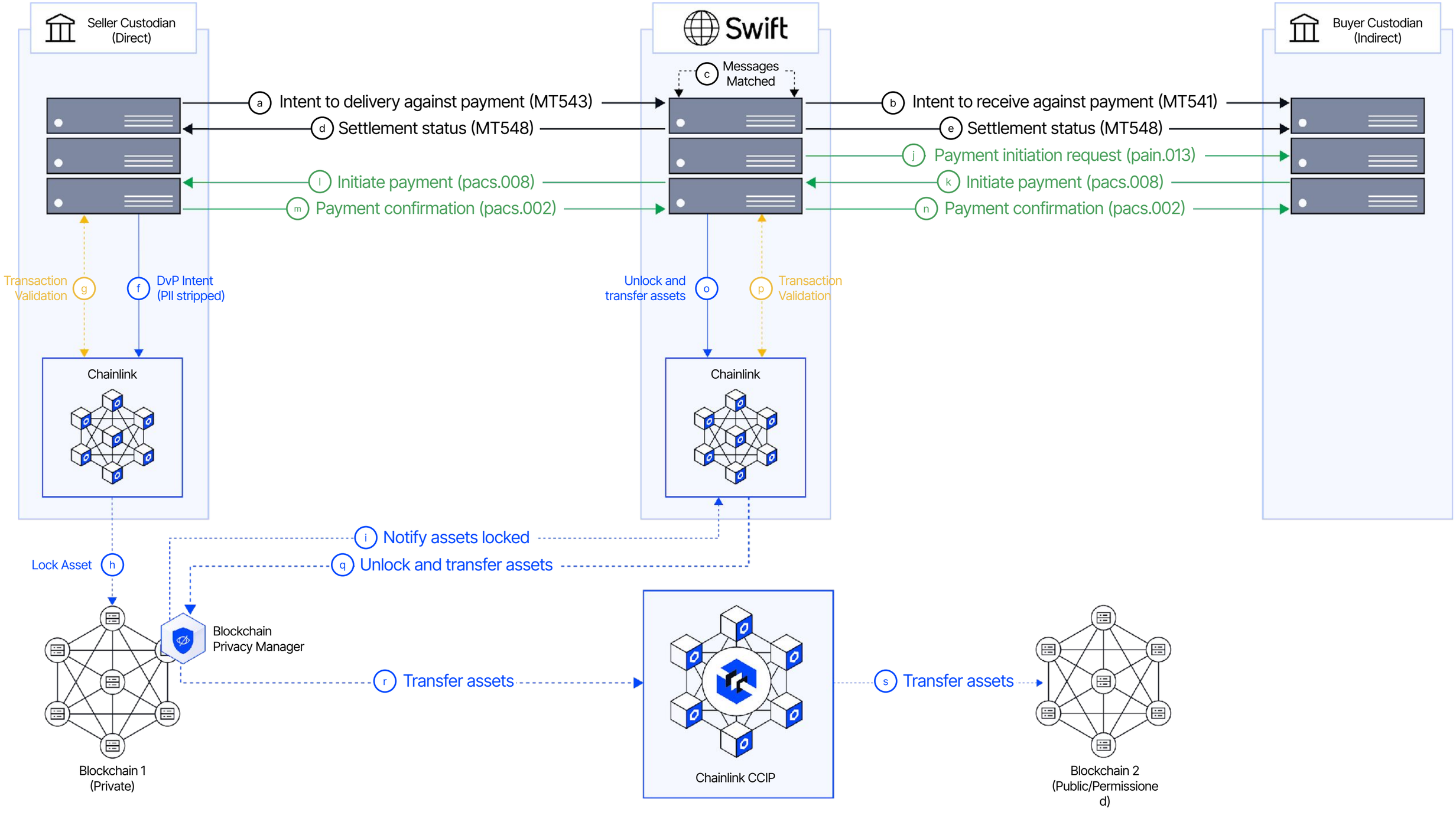
Buyer Account
US2398746501234891

Seller Account
US2547893421987342

Global Tx ID | ONCHAIN

Raw Data


```
{
  "SettlementId": 124708829519055705578696096989777691754937990918196,
  "PartyInfo": {
    "BuyerSourceAddress": "0x93411f72dd3341a1d8af7765bd5baff70f18c521",
    "BuyerDestinationAddress": "0x93411f72dd3341a1d8af7765bd5baff70f18c
    "SellerSourceAddress": "0xb4299d7596529ff8df496e53ffd77944bcca3ae1"
```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Transaction Validation
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Chainlink
Chainlink
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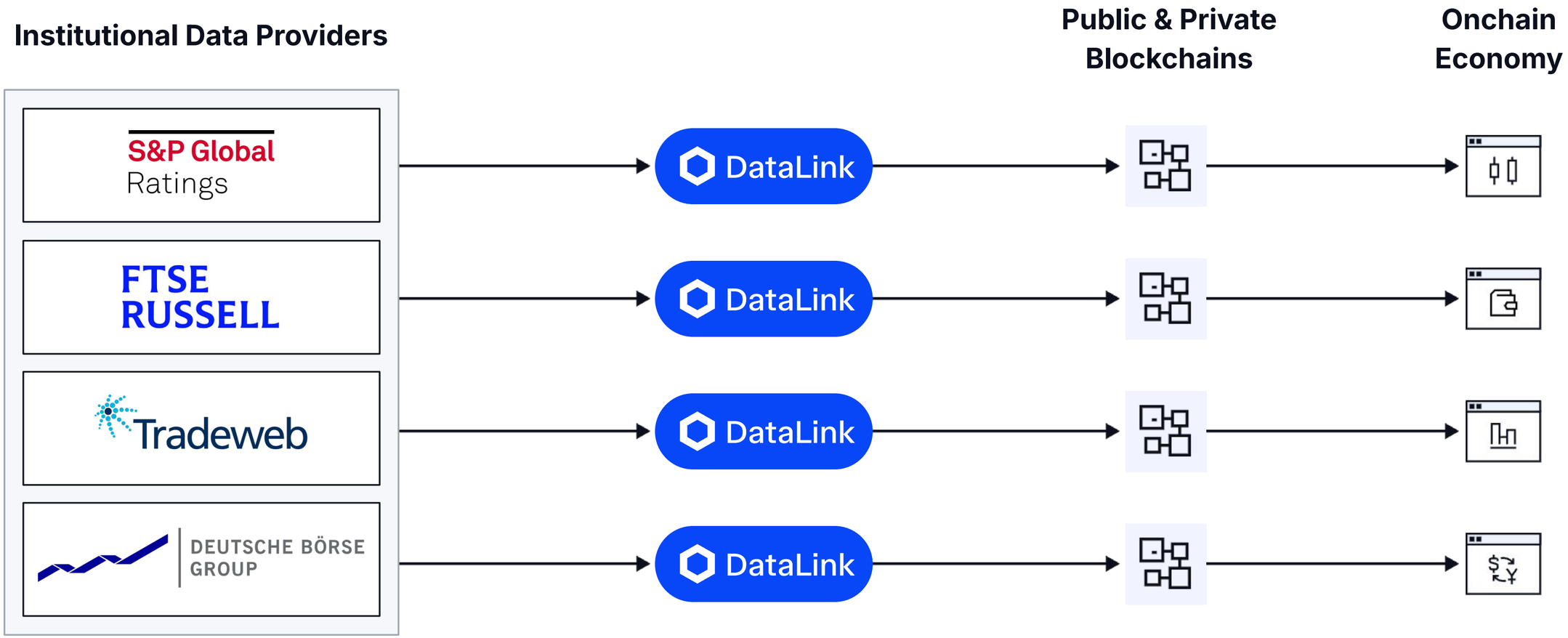
Lock Asset
h
q Unlock and transfer assets
Blockchain Privacy Manager
r Transfer assets
Chainlink CCIP
s Transfer assets
Blockchain 1
(Private)
Blockchain 2
(Public/Permissioned)

DataLink is Now Putting Institutional Data On-chain



Orchestration Doesn't Need to Be Your Problem: How CRE Is Bringing Financial Institutions Onchain

Fullton Street Stage Day 2 → 2:00 - 2:14 PM

Aakar Schroff
VP of Product
Chainlink Labs

Build Your First Workflow With CRE

Developer Workshop Day 1 → 3:05 - 4:05 PM

Richard Gottleber
DevRel Content Manager
Chainlink Labs

How CRE Connects TradFi, DeFi, and Tokenized Assets

Grand Central Stage Day 2 → 4:00 - 4:25 PM

Moderator: **William Reilly**, Chainlink Labs

Participants: **Bruno Grossi**, Banco Inter | **Surendra Kalidindi**, Hadron by Tether | **Laszlo Szabo**, Kiln | **Cory Pugh**, Bridgetower Capital

Demo: Integrating AWS With Chainlink Runtime Environment (CRE) Workflows

Developer Workshop Day 1 → 4:05 - 4:35 PM

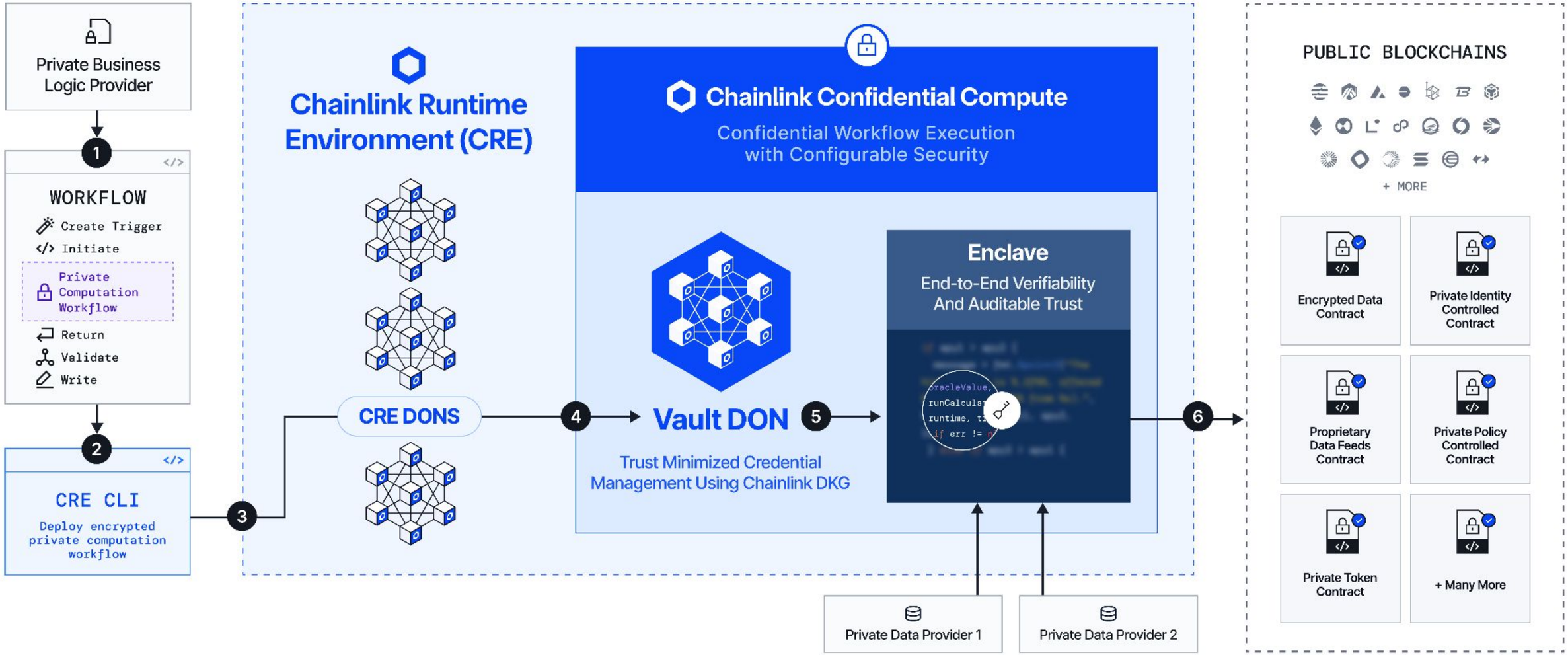
Simon Goldberg
Web3/Blockchain Specialist
Solutions Architect, AWS

Ricky Vuong
Account Manager
Amazon Web Services

INTRODUCING CHAINLINK CONFIDENTIAL COMPUTE:

Unlocking Private Smart Contracts On Any Blockchain

Chainlink Confidential Compute Creates On-Chain Privacy



1. Write workflow including private capabilities
2. Encrypt private computation workflow and deploy with CRE CLI
3. Workflow execution initiated
4. Chainlink DKG setup enables generating privacy preserving threshold decryption shares of private workflow and data
5. TEE decrypts private workflow and data, initiates execution
6. Attestation and output validated by DONs and write output to chains

SmartCon

LEARN MORE

Chainlink Confidential Compute

Fulton Street Stage Day 2 → 3:30 - 3:44 PM

Gregory Neven

Research Engineer
Chainlink Labs

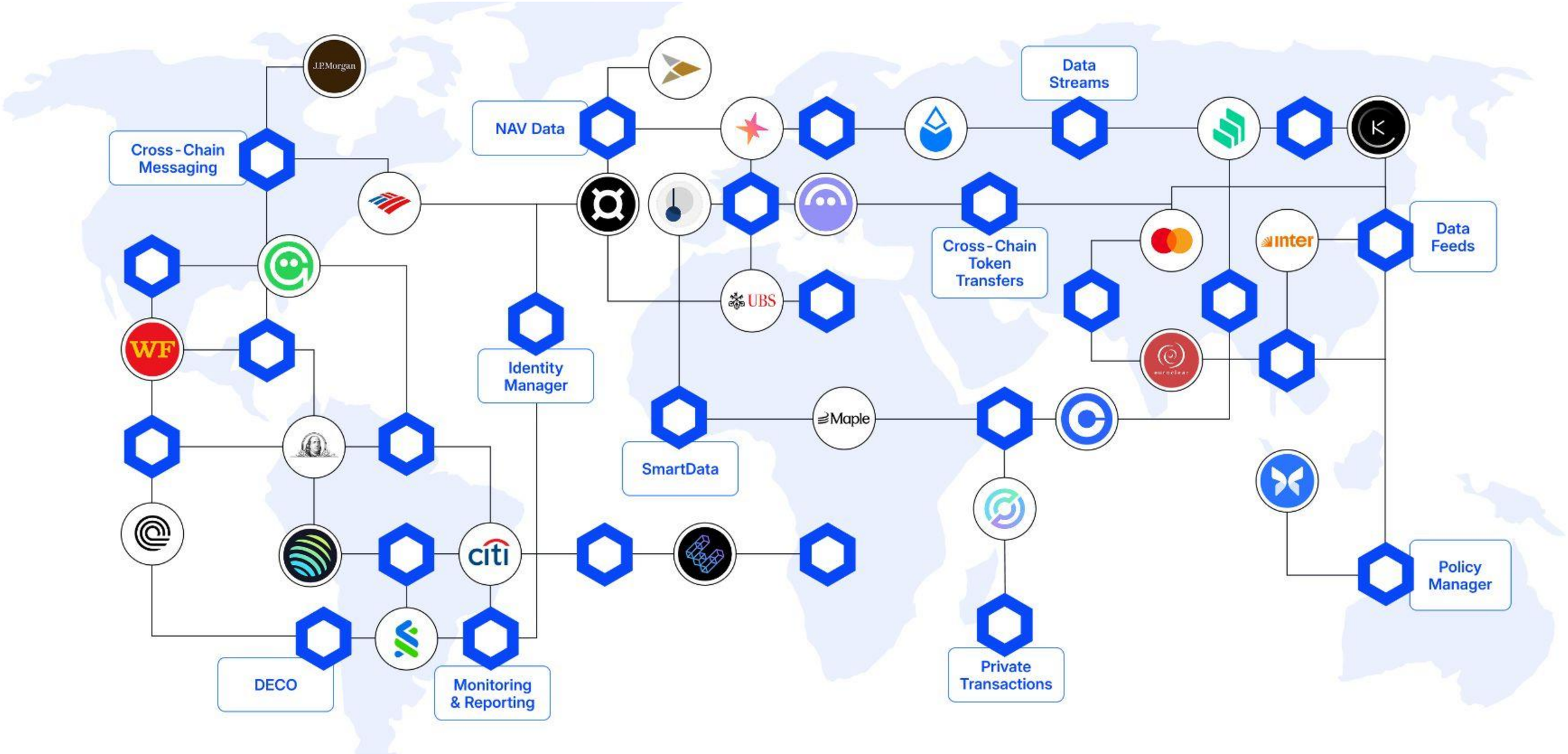
Fundamental Building Blocks for Onchain Finance

Grand Central Stage Day 2 → 4:40 - 5:00 PM

Lorenz Breidenbach

Head of Research
Chainlink Labs

The Chainlink Standard Enables Institutional Adoption



Other Talks at SmartCon

Chainlink Runtime Environment

Developer Workshop (Day 1) 3:05 – 4:05 PM
Build Your First Workflow With CRE

Developer Workshop (Day 1) 4:05 – 4:35 PM
Demo: Integrating AWS With Chainlink Runtime Environment (CRE) Workflows

Fulton Street Stage (Day 2) 2:00 - 2:14 PM
Orchestration Doesn't Need to Be Your Problem: How CRE Is Bringing Financial Institutions Onchain

Grand Central Stage (Day 2) 4:00 - 4:25 PM
How CRE Connects TradFi, DeFi, and Tokenized Assets

AI

Union Square State (Day 2) 1:45 - 2:00 PM
Props: Using Oracles For Machine-Learning Security

Confidential Compute

Fulton Street Stage (Day 2) 3:30 – 3:44 PM
Chainlink Confidential Compute

Grand Central Stage (Day 2) 4:40 - 5:00 PM
Research Keynote: Fundamental Building Blocks for Onchain Finance

Data

Penn Station Stage (Day 2) 9:30 - 10:00 AM
Unlocking Institutional Capital: The Data, Identity, and Regulation Imperative for DeFi

Union Square Stage (Day 2) 1:00 - 1:30 PM
Executive Perspectives: Architecting the Onchain Financial System

CCIP

Fulton Street Stage (Day 2) 10:30 - 10:44 AM
Connecting the Dots: Interoperability in the Tokenized Economy

Penn Station Stage (Day 2) 11:15 - 11:45 AM
The Future of Onchain Finance: Interoperability at Scale

Automated Compliance

Grand Central Stage (Day 1) 3:30 - 4:00 PM
Automating Compliance for Complex Transactions

Fulton Street Stage (Day 2) 2:30 – 2:44 PM
Compliance Is How You Win Onchain

Chainlink

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.