



**FUNDAMENTAL
INTERACTIONS**

Digital Asset Securities - Framework

SEC Definitions of Digital Asset Securities

Digital Asset: A digital asset is any asset that is issued and transferred using distributed ledger or blockchain technology. This includes, but is not limited to, cryptocurrencies, tokens, and other forms of digital representations of value or contractual rights.

Security: A digital asset is considered a security if it meets the criteria set forth in the **Howey Test**, which is used to determine whether an asset is an "investment contract." According to the Howey Test, an asset is a security if:

- 1. Investment of Money:** There is an investment of money.
- 2. Common Enterprise:** As a distinct element of an investment contract.
- 3. Expectation of Profit:** There is an expectation of profits from the investment.
- 4. Efforts of Others:** The profits are derived from the efforts of a promoter or third party.

Statement on Digital Asset Securities Issuance and Trading

<https://www.sec.gov/news/public-statement/digital-asset-securities-issuance-and-trading>

SEC Definitions of Digital Asset Securities

A **public blockchain network** like Ethereum, which operates in a decentralized manner without a central authority, faces unique challenges in complying with U.S. regulations for reporting.

- **No Central Entity:** Unlike a traditional company, Ethereum is not controlled by a single entity but operates through a decentralized governance structure involving various stakeholders, including developers, miners, and users. Cryptocurrencies cannot comply with 15c-211

Securities ACT 1933 Requires Compliance with Applicable Law

Public Disclosures:

- **Transparent Communication:** Public blockchain projects should maintain transparent communication with their community and investors. This includes regular updates on development, governance decisions, and financial disclosures when applicable.

Token Issuance and Compliance:

- **Securities Laws:** Any issuance of tokens on the Ethereum network that might be classified as securities under the Howey Test must comply with U.S. securities laws. This includes registration or qualification for an exemption, such as Regulation D or Regulation A+.

Framework for “Investment Contract” Analysis of Digital Assets

<https://www.sec.gov/news/public-statement/digital-asset-securities-issuance-and-trading>

SEC Definitions of Digital Asset Securities

SEC Rule 15c2-11 Overview

Governs: Publication or submission of quotations by brokers and dealers in OTC securities. The rule in its current form is inadequate.

Key Aspects:

1. Information Availability:

- Ensure issuer information is current, publicly available, and accurate before initiating/resuming OTC quotations.

2. Information Review:

- Required info includes financial statements, business nature, officers, directors, major shareholders, and material events.

3. Disclosure Requirements:

- Brokers and dealers must review and have a reasonable basis for believing the information is accurate and from reliable sources.

4. Recordkeeping:

- Firms must keep records of reviewed information and make it available to the SEC upon request.

5. Exceptions:

- Applies to certain securities and issuers, like those listed on a national exchange or with a current registration statement.

6. Increased Transparency:

- Enhances transparency and investor protection, helping prevent fraud and manipulation in the OTC market.

Digital Assets Based off Real World Asset (RWA)

Private Credit:

- Tokenized private credit assets such as business loans and structured credit pools.

Public & Private Securities:

- Digital versions of publicly & Privately traded stocks and bonds.

Real Estate:

- **Property Tokens:** Fractional ownership of real estate properties.
- **REIT Tokens:** Digital shares in Real Estate Investment Trusts (REITs).

Revenue Sharing:

- **Royalty Tokens:** Digital assets representing future royalty payments from intellectual property, including songs and media.
- **Media Channel Tokens:** Revenue-sharing tokens for media content on platforms like YouTube.

Digital Assets Based off Real World Asset (RWA)

Stablecoins:

- Digital tokens pegged to stable assets such as fiat currencies (e.g., USDC, DAI).

Treasuries:

- Tokenized U.S. Treasury securities, offering fractional ownership of government bonds.

DeFi Products:

- **Decentralized Finance (DeFi):** Financial products and services built on blockchain technology that operate without traditional intermediaries like banks. These include lending platforms and synthetic asset platforms, enabling users to lend, borrow, trade, and invest in digital assets in a decentralized manner.

Mutual Funds:

- **Tracking Tokens:** Digital tokens that represent mutual fund shares, allowing investors to track the performance of mutual funds and gain exposure to diversified portfolios through tokenization.

Comparison of Asset Types, Crypto, Digital Assets, Securities

	Traditional Securities	Private Securities	Crypto Currency	Digital Assets
Market Hours	9:30 – 4:00 PM Extend Hours 24/5	9:30 – 4:00 PM Extended Hours	24/7	9:30 am to 4:00 PM Extended Hours 24/5
Market	Country	Country	Global/Regional/Country	Country
Post-Trade	Legacy Settlement Process	Intraday Settlement	Immediate Settlement	Intraday Settlement
Workflow Integration	Broker, Exchange, ATS, Clearing firm, DTCC, NSCC, TRFs, FINRA Reporting	Broker, ATS, Custodian, Transfer Agent, FINRA ORF, TRACE Reporting and Exemptions	Exchange, intermediary or Peer to Peer	Broker, ATS, Custodian, Transfer Agent FINRA Reporting
Ownership Registration	Maintained by Third Party	Maintained by Third Party in Customer Name	Maintained by Exchange & Third-Party	Maintained by Third Party in Customer Name
Regulation	Jurisdictional / Regulated	Jurisdictional / Regulated	Global / Regional Regulated	Jurisdictional / Regulated
Compliance	Automated & Manual Systems	Automated & Manual Systems	Blockchain Transactions & Smart Contract Enforcement	Blockchain Transactions Smart Contract Enforcement

US Securities Issuance Offering Types Public, Private & Digital Asset Securities



Offering Digital Securities Through a Broker-Dealer



Crowdfunding Portals:

Platform: Digital securities are offered via SEC-registered crowdfunding portals.



Investment Bank:

Underwriting: Investment banks underwrite digital asset securities offerings

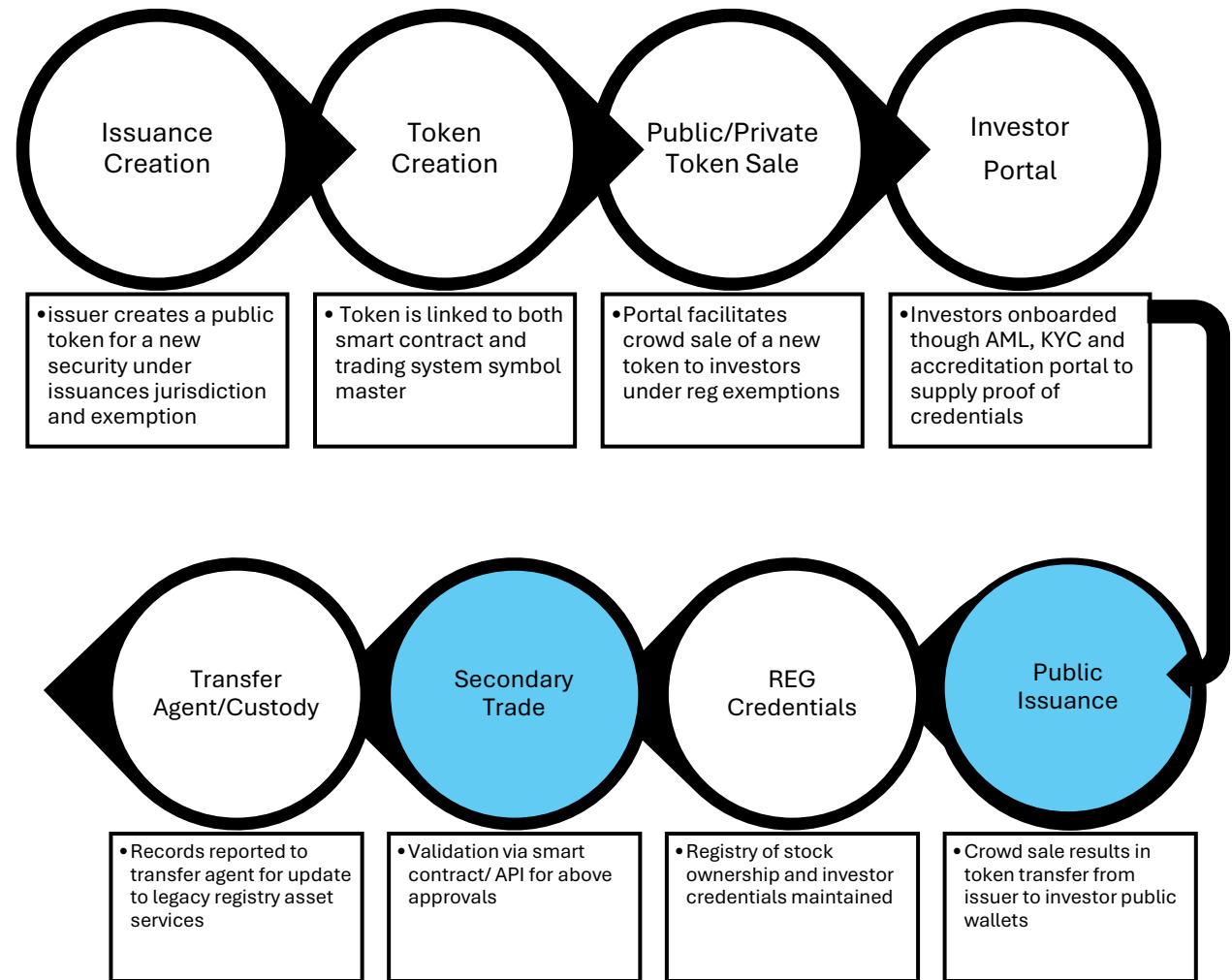
Distribution: Securities are sold to institutional & accredited investors.



Fund Manager:

Fund Creation: Fund managers create specialized funds that include digital securities as part of their portfolio.

US Securities Issuance Offering Types Public, Private & Digital Asset Securities



US Securities Issuance Offering Types

Public, Private & Digital Asset Securities

Registration with the SEC: Public Securities Offerings

Publicly Traded

Registration Statement S-1:

If the digital asset is classified as a security, it must be registered with the U.S. Securities and Exchange Commission (SEC), unless an exemption applies.

Regulation A:

Permits offerings between \$20 million to \$75 million within a 12-month period under less stringent conditions compared to full registration
Tier 1: Raise up to \$20 million, state compliance
Tier 2: Raise up to \$75 million, more disclosure, exempt from state law

Regulation Crowdfunding (Reg CF):

Companies can raise up to \$5 million in a 12-month period. Securities purchased in a Reg CF offering cannot be resold for one year

US Securities Issuance Offering Types

Public, Private & Digital Asset Securities

Regulation D: Private Placement Exemption Securities Offerings

Private Securities

Rule 506(b):

Rule 506(b) allows issuers to raise an unlimited amount of capital without registering the offering with the SEC.

The offering can be sold to an unlimited number of accredited investors. "restricted securities" and cannot be freely resold.

Rule 506(c):

The offering can be sold to an unlimited number of accredited investors. Similar to Rule 506(b), there is **no limit on the amount of capital** that can be raised.

Permits issuers to use general solicitation and advertising to offer and sell their securities

Regulation S:

Pertains to offerings made outside the U.S. and therefore not subject to registration.

US Securities Issuance Offering Types

Public, Private & Digital Asset Securities

Investment Company Offerings

Funds

Form N-1A Filing:

Investment companies typically file Form N-1A with the SEC, along with a prospectus and statement of additional information.

Exemptions from the Investment Company Act

Section 3(c)(1): This section exempts private investment funds with fewer than 100 beneficial owners and that do not publicly offer their securities.

Section 3(c)(7): Exempts funds that sell securities solely to qualified purchasers, typically persons with significant amounts of investment assets.



US Securities Issuance Offering Types

Public, Private & Digital Asset Securities

Special Purpose Vehicles (SPVs)

They are structured as either a Limited Liability Company (LLC) or a Limited Partnership (LP) to facilitate the collective investment of multiple investors into a single entity—such as a private company.

SPVs are offered under regulation filings, REG D, A, and etc.

They are often utilized by private equity funds to pool investments in specific projects or companies.

Digital Asset utilize SPVs. These SPVs can be structured under various exemptions provided by the Investment Company Act of 1940, particularly under sections 3(c)(1), 3(c)(7)

SEC Regulation ATS and Its Application to Digital Asset Securities

Overview of Regulation ATS:

- **Purpose:** Provides a regulatory framework for alternative trading systems (ATS) operating alongside traditional exchanges.
- **Registration:** ATSs must register as broker-dealers and file Form ATS with the SEC.

ATS Application to Digital Asset Securities:

- **Compliance:** Platforms trading digital asset securities must adhere to Reg ATS standards.
- **Disclosure:** Provide clear information about trading mechanisms and risks.
- **Fair Access:** Maintain equal access for all qualified traders.
- **Record-Keeping:** Leverage blockchain transparency while ensuring SEC compliance.

Alternative Trading Systems - Digital Assets

SEC Rule 15c3-3 and Digital Assets

- **Customer Protection Rule:** Ensures protection of customer funds and securities at broker-dealer firms.

Application to Digital Assets:

- **Digital Asset Custody:**
 - **Special Purpose Broker-Dealer:** Ensure digital assets (cryptocurrencies, tokenized securities, etc.) are protected similarly to traditional securities.
 - **Secure Custody Solutions:** Implement cold storage and multi-signature wallets to prevent unauthorized access and theft.
- **Reserve Account:**
 - **Special Reserve Bank Account:** Maintain an account for the exclusive benefit of customers, holding cash and/or qualified securities equal to the net cash owed to customers.
- **Segregation of Assets:**
 - **Customer Asset Protection:** Segregate customer digital assets from the broker-dealer's proprietary assets to prevent commingling and ensure protection in case of firm insolvency.

Alternative Trading Systems - Digital Assets

Use of ATS for Trading Digital Assets:

- Alternative Trading Systems that facilitate the trading of digital securities must ensure they comply with SEC regulations, including Rule 15c3-3 and 15c3-5 (Market Access Rule) & Rule 301(b)(5) Fair Access Rule

Compliance and Reporting:

- ATs and broker-dealers that handle digital securities are subject to SEC & FINRA oversight for Settlement and Clearing of Private Shares and Digital Assets.
- ATS is required to report a trade within 10 seconds of an execution to FINRA's Order Reporting Facility (ORF) for equities, TRACE reporting for debt securities, and subsequent daily Consolidated Audit Trail (CAT) reporting.

Settlement and Clearing:

In the context of digital asset securities, this can be executed on the blockchain using smart contracts that ensure the automatic and secure transfer of assets and funds.

Market Access Rule

<https://www.sec.gov/files/rules/final/2010/34-63241.pdf>

Fair Access Rule

<https://www.sec.gov/tm/faq-regulation-ats-fair-access-rule>

Alternative Trading Systems - Digital Assets

Settlement Process of a Matched Trade

Four-Step Process for Secondary Trading of Digital Asset Securities

- Post-matching, both the buyer and the seller receive a trade confirmation notification. This serves as an initial check that the transaction details are correct as agreed upon during the matching process.
- Confirmation by Parties, both parties must confirm the transaction details. If there's any discrepancy, it should be resolved before moving to the next step.

Three-Step Process for Secondary Trading of Digital Asset Securities

- Pre-matching, both the buyer and the seller send an authorization notification to the Alternative Trading System. This serves as an authorization for the ATS to forward settlement instructions to the Custodian and Transfer agent to settle the transaction as agreed upon during the matching process.
- Both the buyer and seller will receive confirmation via the ATS the transaction settlement details.

Alternative Trading Systems - Digital Assets

Trading Platform and Requirements:

Customer and Market Maker Accounts:

1. **Fully Funded Accounts:** Both customer and market maker accounts must be fully funded with the required digital assets and fiat currencies before engaging in trading.
2. **Long Position Requirement:** Accounts must hold a long position in the security; shorting digital assets is not permitted.

Asset Custody:

1. **Customer Ownership:** All digital assets must be held in the customer's name. Assets cannot be held in the broker's name, ensuring direct ownership and control by the customer.

Market Maker Obligations:

1. **Two-Sided Quotes:** Market makers wishing to provide two-sided quotes for digital assets must either hold a long position in the asset or have arrangements to cover short positions.
2. **Issuer Relationship:** If a market maker does not hold the digital asset, they must have direct relationship with the token issuer to purchase the tokens the same day they are sold.

Alternative Trading Systems - Digital Assets

Three or Four Step Process summary of how a digital asset would settle for a tokenized security:

Step 1: Trade Execution

Execution of the Trade

- 1. Order Placement:** The investor places an order to buy or sell a tokenized security on a digital trading platform or exchange.
- 2. Matching Engine:** The trading platform's matching engine matches buy and sell orders based on price and availability.
- 3. Trade Confirmation:** Once matched, both parties receive a trade confirmation detailing the trade terms (price, quantity, etc.).

Alternative Trading Systems - Digital Assets

Step 2: Trade Confirmation

Verification and Confirmation

1. **Verification:** The ATS trading platform verifies the details of the trade to ensure accuracy and compliance with regulatory requirements and reports the Trade to FINRA Order Reporting Facility (ORF) or Trade Reporting and Compliance Engine (TRACE) within 10 seconds of the match.
2. **Trade Notification:** Sent to the Custodian handles record with the Bank, Transfer Agent and Blockchain network.(custodian handles Digital Asset settlement process).
3. **Smart Contract Trigger:** The trade confirmation triggers a smart contract on the blockchain. This smart contract automates the execution of the trade settlement on the network
4. **Notification:** Both the buyer and the seller are notified of the successful trade confirmation through the platform.

Alternative Trading Systems - Digital Assets

Step 3: Settlement

Transfer of Assets and Payment

1. **Token Transfer:** The smart contract initiates the transfer of the tokenized security from the seller's blockchain wallet to the buyer's blockchain wallet.
2. **Payment Transfer:** Simultaneously, the payment (in fiat or cryptocurrency) is transferred from the buyer's wallet to the seller's wallet.
3. **Atomic Swap:** The smart contract ensures an atomic swap, meaning the transfer of tokens and payment occurs simultaneously to mitigate settlement risk.
4. **Blockchain Record:** The transaction is recorded on the blockchain, ensuring transparency and immutability.

Alternative Trading Systems - Digital Assets

Step 4: Post-Settlement

Reconciliation and Reporting

1. **Reconciliation:** The trading platform reconciles the transaction details, ensuring all records match and there are no discrepancies.
2. **Custody Update:** The custodial records are updated to reflect the new ownership of the tokenized security with the Transfer Agent and the movement of FIAT funds with the bank.
3. **Investor Notification:** Both the buyer and the seller receive a final settlement confirmation, and their account balances are updated accordingly.

ATS Flow of Funds & Trading Digital Assets– Onboarding

Step 1. Buyer and seller onboard with Alternative Trading System

Step 2. Buyer and seller create new or verify existing segregated account with third-party custodian of their choice.

Step 3. Buyer and seller load assets into individual segregated account.

Step 4. Balance of individual segregated account reflected on ATS



1. KYC/AML

1. KYC/AML

2. New accounts

3. Transfer assets



Alternative Trading System

4. Asset records sent to ATS



Third-Party Custodian

ATS mandates that any third-party custodian be a “bank” as defined under the Securities Exchange Act of 1934, which includes state-chartered trust companies.

ATS Flow of Funds & Trading Digital Assets– Trade

Step 5.

Buyer & Seller places order

Step 6.

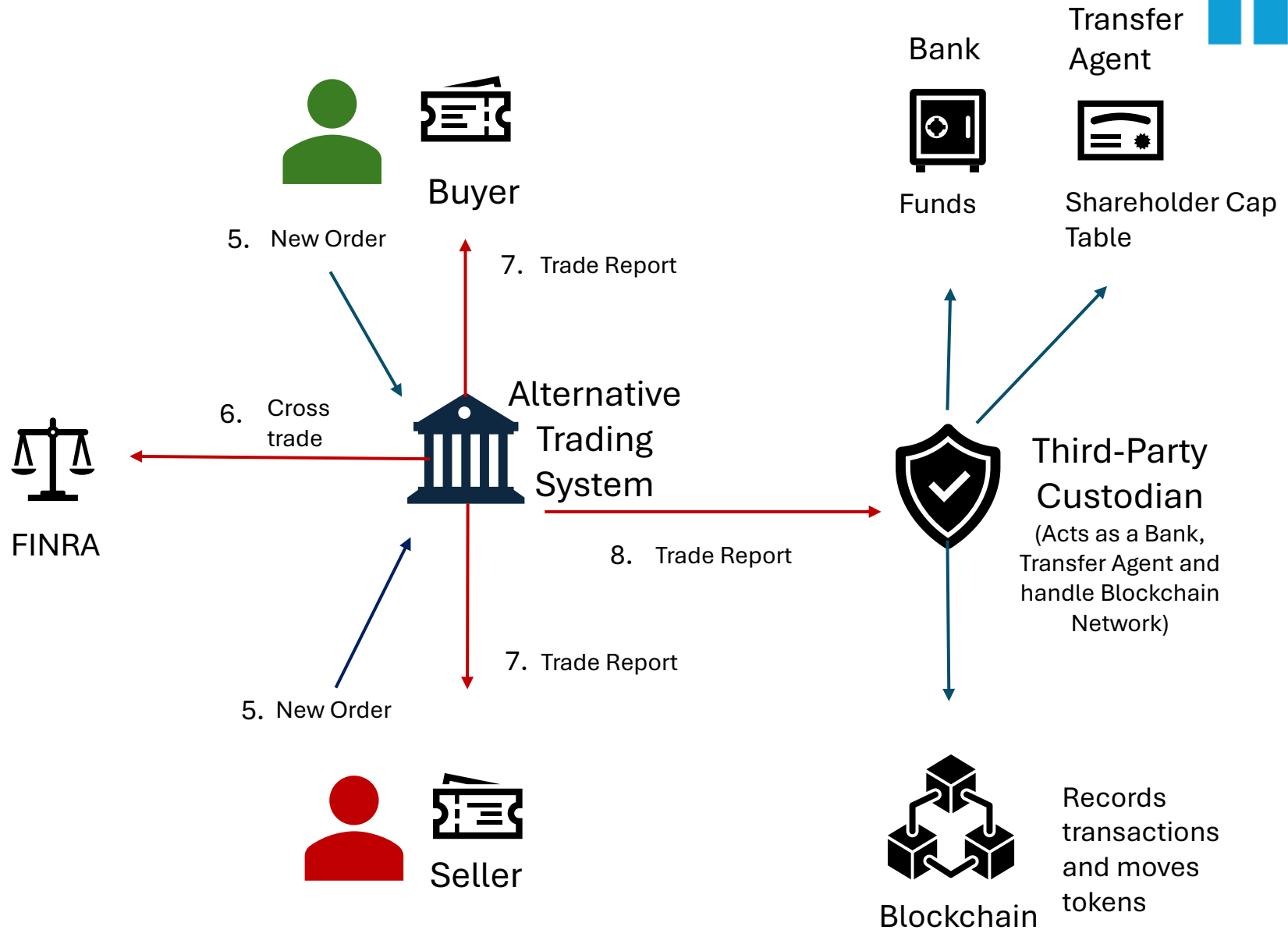
ATS matches orders & reports trade to FINRA

Step 7.

Match notice sent to buyer & seller

Step 8.

Match notice sent to custodian



ATS Flow of Funds Trading Digital Assets– Settlement

Step 9.

Trade notice sent to custodian & buyer and seller

Step 10.

Buyer & seller confirm transfer of assets

Step 11.

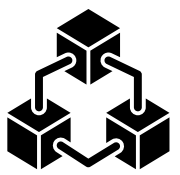
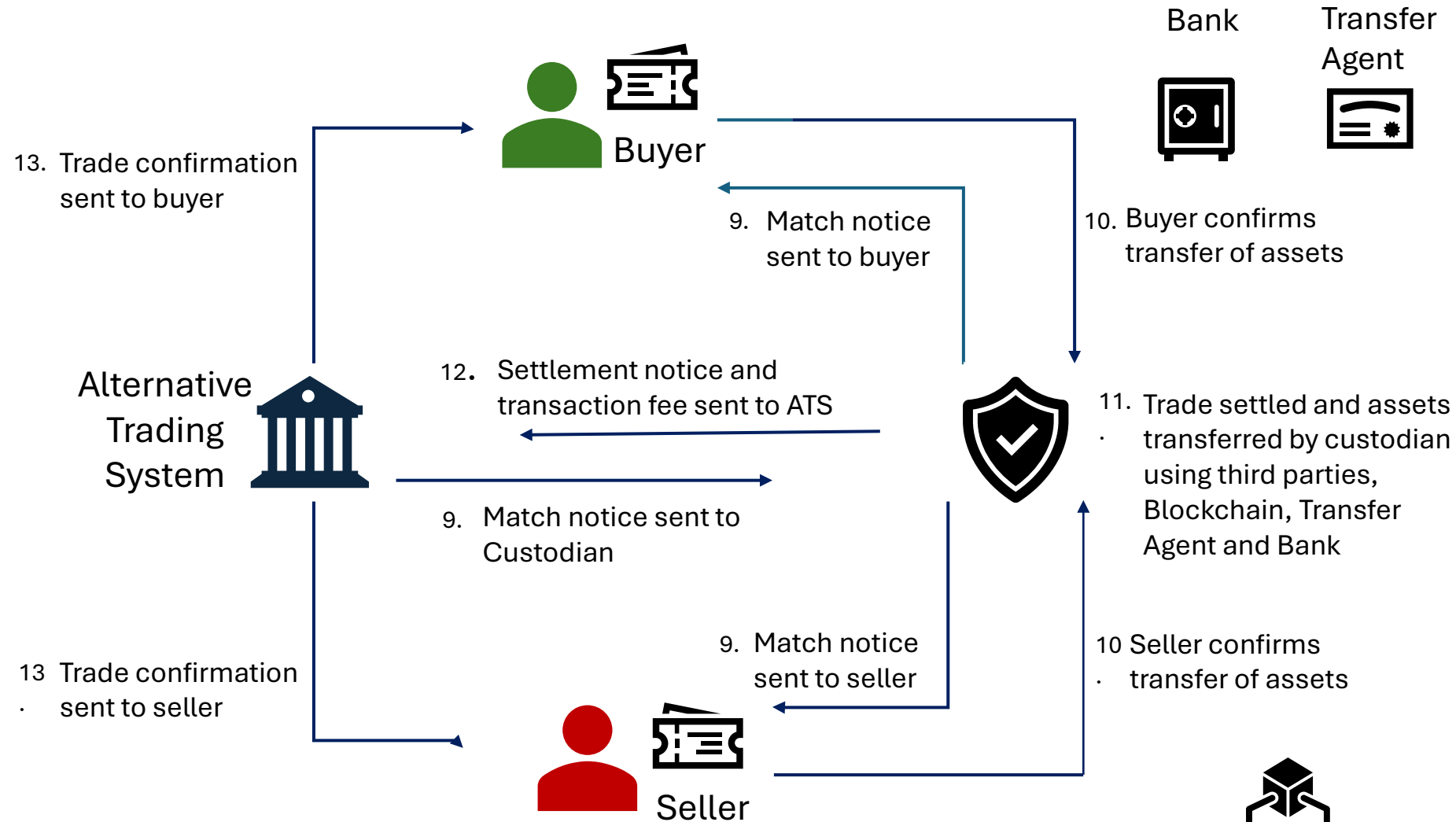
Trade settled and assets transferred by custodian securities & cash

Step 12.

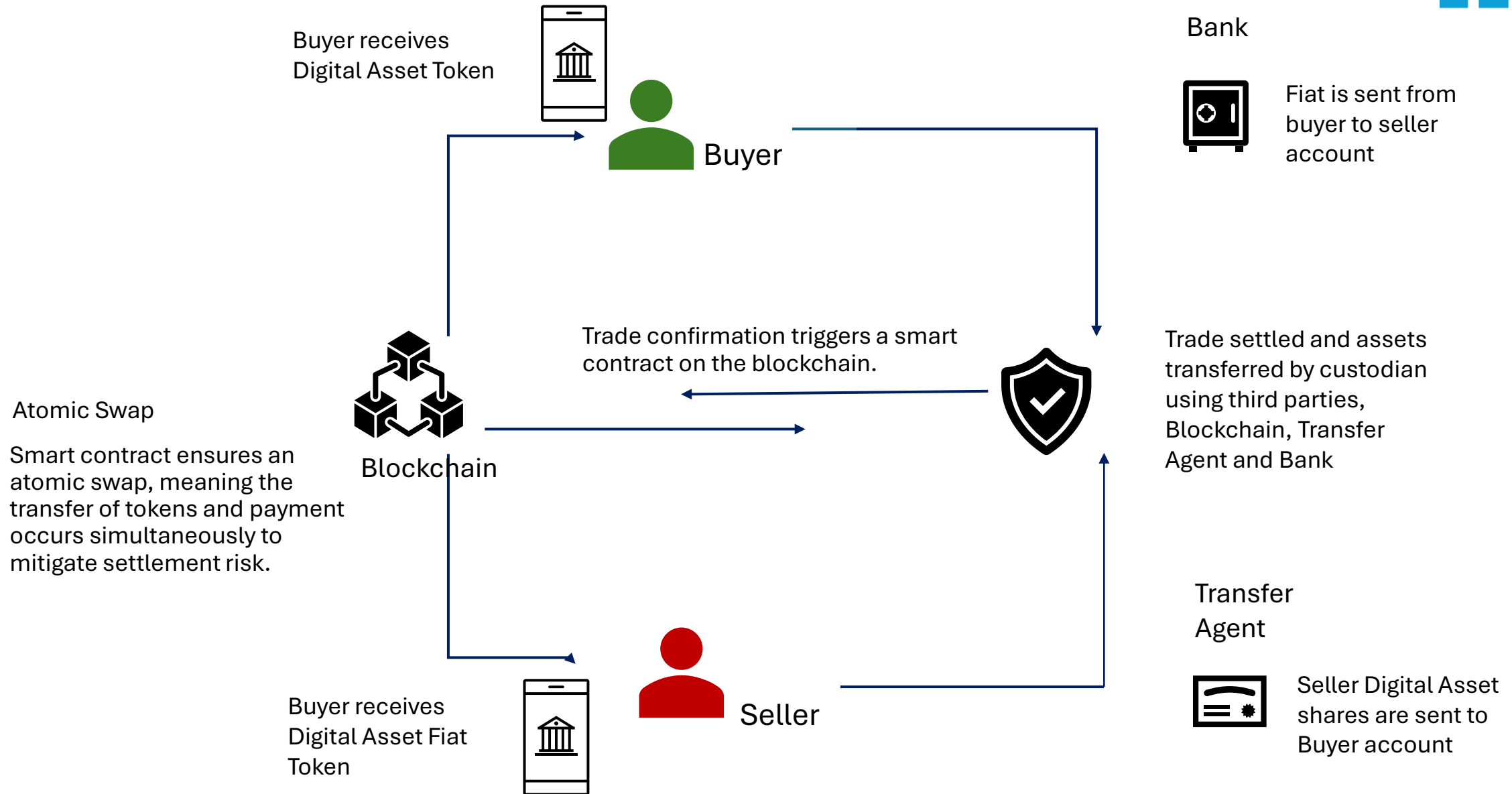
Settlement notice and transaction fee sent to ATS

Step 13.

Trade confirmation sent to seller



ATS Flow of Funds Trading Digital Assets– Settlement



Digital Asset Securities - Framework

Contact

Fundamental Interactions Inc.

212-845-9077

shawn@finteractions.com

