



# ISIN-DTI Guide

**Date:** September 2024

**Version:** 1.2

## Version History

Version	Summary of Changes	Date	Author
1.0	Initial version	17 Oct 23	D. Dounaev
1.1	Updated diagram in the DTI to ISIN link section	05 Jan 24	D. Dounaev
1.2	ISIN and DTI FFG allocation criteria & Appendix A	03 Sep 24	D. Dounaev

## Background

The rapid ascent of cryptocurrencies has brought forth significant customer risks, necessitating the establishment of an international standard for their global identification and regulation. International Standards Organisation created ISO 24165 (DTI) standards to address industry and regulatory needs. Digital Token Identifier Foundation (DTIF) was as the Registration Authority, responsible for issuance and maintenance of DTIs.

The DTI standard was created to complement existing ISO standards, particularly the ISO 6166 International Securities Identification Number (ISIN), which for 40 years has been used to identify financial instruments. DTIF approached the Association of National Numbering Agencies (ANNA), Registration Authority for the ISO 6166 standard and a global member association of National Numbering Agencies (NNAs) responsible for issuance and maintenance of ISINs as registration agents, to set up a task force to explore and identify synergies in the assignment of the respective identifiers for digital tokens that are within the scope of both issuing authorities. This task force was established in March 2021, agreed principles, developed recommendations and signed an MOU in July 2023.

## Task Force Findings

The task force determined that DTI and ISIN are complementary in nature, with the DTI focus on identifying the token implementation and ISIN to uniquely identify the related token asset.

The following collaboration activity was ratified by ANNA and ETS (Etrading Software, a parent company of DTIF) in the Memorandum of Understanding:

1. Establishment of processes between ANNA and DTIF to cross populate the identifiers in respective databases.
2. Issuing XT ISINs for tokenized referential instruments as defined in the scope section and establishing a process of addition to the registry.
3. Establishing process for issuing DTIs for security tokens (including capture of the DLT).

Link to Task Force Documentation:

<https://dtif.org/task-forces/anna-ets-dti-task-force/>

## XT ISIN Scope

**Crypto assets that are not financial instruments in accordance with ISO 10962 CFI classification are treated as referential instruments and therefore are in scope for XT ISIN allocation.**

*Note 1: Jurisdiction-agnostic approach has been applied due to regulatory divergence in the treatment of crypto assets across jurisdictions.*

*Note 2: Centralised approach has been applied due to an absence of clear definition and identification of an issuer for such referential instruments.*

*Note 3: NFTs are currently out of scope and will be addressed at a future date (this does not apply for financial instruments issued in NFT form).*

*Note 4: Existing referential instruments for which ISIN allocation rules already exist are not in scope for XT ISINs*

The approach has been proposed in order to:

- Centralise allocation to facilitate harmonization, reduce duplication of effort and strengthen building of expertise;
- Keep high data quality: avoid more than one ISIN per crypto asset;
- Facilitate interoperability between different ISO standards: ISIN & DTI;
- Preserve established federated model of ISIN allocation where it's currently in place today.

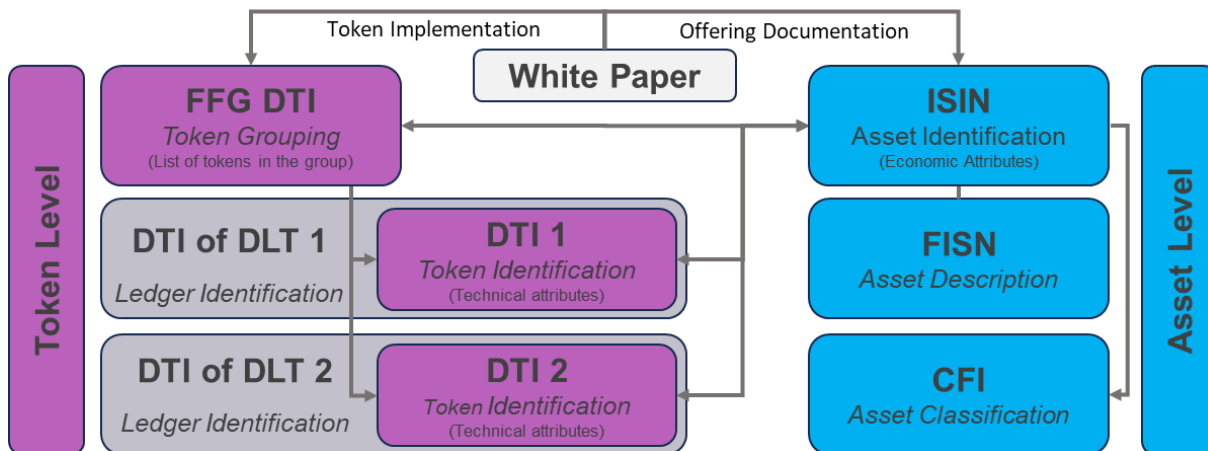
### DTI standard update

The DTI standard is currently undergoing an ISO review process, with the updated standard scheduled for publication in early 2025. The anticipated revisions encompass: the renaming of the Functionally Fungible Group to the Equivalent Digital Token Group, and the introduction of the Digital Ledger Identifier (DLI) to uniquely identify Distributed Ledger Technologies (DLTs).

Upon publication of the new standard, the guide will be updated accordingly. Please be advised that, according to the proposal, DTIs and XT ISINs will remain unchanged, and DLIs will not be included within the scope of an XT ISIN.

## DTI to ISIN Link

### Overview



The allocation of an ISIN represents the identification of an instrument rather than the market an instrument trades on or DLT it is created on. As such, any digital instruments that are fungible (i.e. considered to be equivalent) will be identified by one ISIN.

DTI represents an individual token per DLT, with fungible assets grouped into a Functionally Fungible Group (FFG) with its own DTI. This creates a one to many relationship between the ISIN and DTIs: each ISIN maintains the link to the FFG DTI and each DTI within that group.

### Functionally Fungible Group

A Functionally Fungible Group (FFG) DTI is assigned to a group of tokens that represent the same asset. In order to minimize confusion in the market and create consistency between ISIN and DTI allocation, the task force has agreed that ISIN fungibility and FFG DTI inclusion rules shall follow the same criteria. This will ensure that:

1. Any individual DTI is linked to a single ISIN; and
2. ISIN is linked to a single FFG DTI (and DTIs within that group).

### ISIN and DTI FFG allocation criteria

Digital tokens in scope for XT ISINs may be grouped into FFG DTI and allocated a single XT ISIN if they meet two or more criteria detailed in Appendix A.

Note: For traditional financial instruments, the standard procedure will continue to apply as usual, ensuring that all established protocols and practices are followed without any alterations.

## Data

- DTIF
  - A free registry search functionality is available [here](#).
  - Users can search by DTI, long or short name to find the token and discover ISIN code (if one has been assigned).
- ANNA
  - All the ISINS that have been linked to DTIs are available [here](#).

## Next Steps

The assignment of XT ISINs will continue in a phased approach, and the DTI and ISIN registries cited above maintained with ISIN-DTI mappings accordingly.

In order to gather valuable insights and perspectives from industry stakeholders, we encourage feedback on this process.

All feedback received will be thoroughly reviewed and we will engage in further consultations and discussions to address the valuable insights shared. Our continuing aim is to enhance our process in a manner that aligns with industry needs and regulatory requirements.

## Definitions

- **Association of National Numbering Agencies (ANNA):** the limited liability company which is a global member association of National Numbering Agencies (NNAs) and ISO Registration Authority for the ISO 6166 and ISO 18774 standards.
- **Digital Token Identifier Foundation (DTIF)** a non-profit division of (ETS) and ISO Registration Authority for the ISO 24165 standard
- **Digital Token Identifier (DTI):** the identifier described by ISO 24165.
- **International Securities Identification Number (ISIN):** the identifier described by ISO 6166

## Appendix A: Criteria for FFG Allocation

Reason	Description	Example 1: Tether USD on different DLTs	Example 2: Bitcoin and wrapped Bitcoin	Example 3: Bitcoin and Bitcoin on Lightning	Example 4: Native and Auxiliary TRON tokens	Example 5: ATOM token on Cosmos and Osmosis
<b>Architectural</b>	<p>Are the tokens implemented with consistent design principles and architectural specifications?</p> <p><i>Considerations:</i> Are they backed by the same asset and pegged to the same value?</p>	<p>Yes.</p> <p>Rationale: On all DLTs where Tether USD is implemented, the Tokens are backed by the same asset and purport to remain pegged to the same value.</p> <p>They have the same architecture and design principles</p>	<p>No.</p> <p>Rationale: Bitcoin does not have a pegged value. wBTC is backed by Bitcoin tokens.</p>	<p>Yes.</p> <p>Rationale: Micropayment Lightning channels use real bitcoin transactions, only electing to defer the broadcast to the blockchain in such a way that both parties can guarantee their current balance on the blockchain.</p>	<p>Yes.</p> <p>Rationale: Both tokens represent the same asset.</p>	<p>Yes.</p> <p>Rationale: Both tokens represent the same asset and are architecturally linked.</p>
<b>Organisational</b>	<p>Are the tokens created and maintained by the same organisation?</p>	<p>Yes.</p> <p>Rationale: TetherUSD is maintained by the organisation behind Tether. The same organisation manages underlying assets as well as creation and redemption of tokens.</p>	<p>No.</p> <p>Rationale: Bitcoin is issued by the Bitcoin blockchain as a reward for mining. wBTC is issued through bridges or other protocols “on demand”.</p>	<p>No.</p> <p>Rationale: Bitcoin is issued by the Bitcoin blockchain as a reward for mining. Micro transactions on Lightning are created using smart contract functionality.</p>	<p>Yes.</p> <p>Rationale: Both tokens are maintained by the same organisation.</p>	<p>Yes.</p> <p>Rationale: Both tokens are maintained by the same organisation.</p>

<p><b>Technical</b></p>	<p>Do the tokens share technical implementation?</p> <p><i>Considerations:</i> Are the DLTs on which tokens are implemented linked without a third party? Can transactions in one token be settled by another token?</p>	<p>No.</p> <p>Rationale: TetherUSD on different DLTs is technically different. There are different token standards, different smart contract codes, different blockchains used. For example, TetherUSD on Ethereum cannot be held in the same wallet as TetherUSD on Solana.</p>	<p>No.</p> <p>Rationale: Bitcoin exists only on the Bitcoin blockchain. wBTC can be on different blockchains. Again: Bitcoin and wrapped Bitcoin cannot be held in the same wallet. wBTC is created through interaction with a smart contract, whereas Bitcoin is not.</p>	<p>Yes.</p> <p>Rationale: Lightning Bitcoin network sits on top of Bitcoin blockchain and therefore native/protocol Bitcoin and Lightning Bitcoin share the same underlying DLT</p> <p><a href="https://lightning.network/lightning-network-paper.pdf">https://lightning.network/lightning-network-paper.pdf</a></p>	<p>No.</p> <p>Rationale: Although both tokens sit on the same DLT, they are identified by different technical data elements</p> <p>DTI 993D8X1FB: Identified as a native token to TRON blockchain based on the ledger genesis/block history</p> <p>DTI 523PVPHKS: Identified as an auxiliary token with technical reference 0 on the TRON blockchain: <a href="https://tronscan.org/#/token/0/transfers">https://tronscan.org/#/token/0/transfers</a></p>	<p>Yes.</p> <p>Rationale: Cosmos and Osmosis are technically linked.</p>
<p><b>Result:</b></p>		<p>2 out of 3 criteria are met. TetherUSD shares the same ISIN &amp; DTI FFG across different DLTs.</p>	<p>0 out of 3 criteria are met. Bitcoin and wrapped Bitcoin are not grouped into FFG and do not share the same ISIN.</p>	<p>2 out of 3 criteria are met. Bitcoin and Bitcoin on Lightning share the same ISIN &amp; DTI FFG across different DLTs.</p>	<p>2 out of 3 criteria are met. TRON tokens share the same ISIN and DTI FFG.</p>	<p>3 out of 3 criteria are met. ATOM tokens share the same ISIN and DTI FFG.</p>

<b>DTIs:</b>		<b>FFG:</b> L09Q657BK  75T0GP5WJ; 2QWSBDMNC; NJ7X4BCTD; PJ1BC8W44; C9N6ZVN7S; Z7ZX774BJ; FZP9CBTG1; PDX13MN94; BHQ70PZ11; 6QBMW6DQZ; JGJZPPF7Z; NSTDL1N5; TZFM5MHWR; 29DD3R2SH	<b>Bitcoin:</b> 4H95J0R2X  <b>Wrapped Bitcoin:</b> ZN227BVRW	<b>FFG:</b> V15WLZJMF  <b>Bitcoin:</b> 4H95J0R2X  <b>Bitcoin on Lightning:</b> K1NS41N51	<b>FFG:</b> HZ9HHNPLG  <b>TRON (native):</b> 993D8X1FB  <b>TRON (auxiliary):</b> 523PVPKKS	<b>FFG:</b> 6C7F2WVZH  <b>ATOM on Cosmos:</b> JVMWS68W1  <b>ATOM on Osmosis:</b> DJ0QPRH0W
<b>ISIN(s):</b>		XTL09Q657BK6	<b>Bitcoin:</b> XTV15WLZJMF0  <b>Wrapped Bitcoin</b> <b>(NEW):</b> XTH9ZJCGXD6	XTV15WLZJMF0	XTHZ9HHNPLG8	XT6C7F2WVZH0