



Challenges managing security tokens on general-purpose blockchains

In addition to eliminating technical due diligence, [ERC 1400](#) resolves some of the challenges surrounding security token management by automating transfer control, including the need for KYC verification, and corporate actions, like capital distribution or voting. Despite these advances, standards can only take us so far. Because of the breadth of use cases managed by Ethereum, the chain falls short when it comes to the intricacies of managing securities.

Firstly, on Ethereum, digital assets are programmed using smart contracts and as a result, custodians, exchanges and other market participants have to integrate each asset into their environment individually. But beyond that inefficiency, Ethereum's usage of probabilistic finality is a barrier to making it the golden record for asset ownership and the chain does not provide any affirmation mechanism—hence the airdrops we've all experienced.

As the industry has evolved, it's become clear that there are four keystone issues with asset tokenization on general-purpose blockchains that need to be addressed in order to align

the functioning of the blockchain with the requirements of modern capital markets.

Identity

Securities issuance and transfer requires a known identity, but most chains are built for pseudonymity.

Governance

Contentious forks in the chain present significant legal and tax challenges for tokens that are backed by real assets.

Compliance

Security tokens are subject to a growing number of regulations, but chains struggle with complex logic needed to comply.

Confidentiality

Most market participants need their position and trades to remain confidential, but anyone can see holdings on general-purpose blockchains.

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