How to Build a Platform for Institutional Digital Assets



By Dr. Peter T. Golder & Joël L. Glässer



What does it take to create a digital asset market?

Today, cryptocurrencies dominate the digital assets (DA) space. This is likely to change as more digital securities emerge¹. The advantages of digital securities are manifold; some of the key benefits include more efficient transactions, easier asset servicing, and increased asset transparency through data natively embedded in the tokens.

However, digital securities — in particular non-crypto digital assets — face a starting problem. For digital securities, there is no institutional regulated infrastructure, no institutional liquidity, with a scarcity of issued digital assets in circulation.

What is a platform?

In its simplest form, a platform is an entity built to match users to facilitate the exchange of goods, services, or assets, thereby reducing market frictions, leading to value creation for all participants². Successful platforms usually differentiate themselves by leveraging network effects, ensuring a global scope (clustering), and bridging to multiple networks/markets while actively reducing the risks of disintermediation and multi-homing³.

Platforms are well suited for executing transactions involving multiple participants — as such some of the

oldest forms of platforms are stock exchanges. The emergence of digital assets is both a challenge and threat to established exchanges as well as financial institutions.

Why do digital securities need a new platform?

There are two main categories of digital assets:

- crypto currencies, where there are numerous operators that cater mainly to the requirements of retail financial market participants;
- 2. digital securities with underlying assets from both listed and private markets.

The creation of digital assets in its own right poses a challenge for most platforms and FMIs. Furthermore, the processing of digital assets often requires a different technology stack which is incompatible with legacy infrastructure and ignore the advantages of novel processing paradigms based on DLT and blockchain.

There is therefore an opportunity for a new type of infrastructure — we call it Digital Market Infrastructure [DMI] — that specifically allows for exchange platform operators to exploit these advances in technology and associated business models whilst being backward compatible with existing conventions.

^{1.} Kühnel, M., Olsen, T., Fildes, J., Gridl, K., (2020). Bain & Company, Inc. - For Digital Assets, Private Markets Offer the Greatest Opportunities

^{2.} Parker, G. G., Alstyne, M. V. W., & Choudary, S. P. (2017). Platform Revolution: How Networked Markets Are Transforming the Economy– and How to Make Them Work for You (Reprint ed.). W. W. Norton & Company.

^{3.} Zhu, F., & Iansiti, M. (2020). Why Some Platforms Thrive and Others Don't. Harvard Business Review.

Leveraging platform thinking to start the digital asset market

The challenge: only if a DMI platform emerges that makes it fast, easy, and simple to purchase digital securities will we see institutional and large-scale adoption.

To launch a DMI platform successfully, the infrastructure provider needs to onboard buy & sell-side clients simultaneously and at the same time issue an initial set of digital securities. However, this multi-sided problem requires solving the proverbial Catch-22 problem that successful digital platforms like Airbnb or Amazon have had to address.

Using history as a guide we identified three options that may provide a feasible strategy for digital assets to overcome these challenges:

- 1. Big Bang Adoption the platform uses a traditional push marketing initiative to simultaneously generate interest and onboard all market participants. However, while the "big-bang" adoption strategy is theoretically feasible, the chances of having a single, big marketing event to solve all three problems of Digital Securities seems very unlikely, especially in an institutional setting. This approach resembles the "build it and they will come" believe and there are many examples of failure that can be attributed to Big Bang Adoption.
- 2. Marquee Strategy the key market participants are incentivized to participate in the platform build out and ensure success. This is a viable strategy but requires close collaboration between the different market participants and the DMI platform operator.
- 3. Micro Market Structure Strategy the DMI operator focuses on a small market segment where it can carve out a tailored solution with a strong value proposition. With these tangible benefits, the market participants have a strong incentive to join. Whilst this approach may be successful, the difficulty lies in scaling to a broader set of use-cases.

Successful adoption of institutional digital assets is a function of industry collaboration and skin in the game

How do we maximize the probability of success? The most promising approach for starting a successful digital securities ecosystem stems from combining the Marquee and Micro Market Structure Strategies.

Based on such an approach, a small but relevant group of financial markets pioneers need to agree to develop an ecosystem; ideally centered around a trusted DMI operator. The roadmap for a successful DMI needs to include:

- an appropriately regulated DMI platform to allow for the successful deployment of DA marketplaces to address exploit commercially viable opportunities;
- a governance structure with embedded controls and mechanisms that provides sufficient incentives that drive adoption;
- a scalable and cost-efficient infrastructure that can cater to the evolving business needs of a digital asset ecosystem.

Whilst the above offers a minimum level of required conditions that need to be met to ensure the viability and sustainability of a DMI platform, continued success further hinges on the ability to constantly adapt to prevailing market conditions and the emergence of new competitors that questions the long-term viability of the ecosystem.



About the authors

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Peter T. Golder joined SDX in June 2020 and serves as its Global Head of Commercial. He has over 25 years of capital markets

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Joël L. Glässer joined SDX as a business analyst in October 2020. He combines a strong technological background with

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About SIX and SIX Digital Exchange

SIX is a major financial market infrastructure (FMI) provider that operates exchanges and centralised securities depositories (CSD) in Switzerland and, via the acquisition of the BME in 2020, also in Spain. SIX runs the payments system in Switzerland and operates payment infrastructure on behalf of the Swiss National Bank. SIX also manages a financial information business focused on providing data products and services to financial institutions globally.

SIX is building new digital market infrastructure in its fully owned subsidiary SIX Digital Exchange (SDX).

SDX plans to offer issuance, listing, trading, settlement, servicing, and custody of digital assets with streamlining and automation of asset servicing and post-trade processing. SDX is also a global leader in the development of central bank digital currency (CBDC) via its partnership with the Swiss National Bank and the Bank for International Settlements. SDX has partnered with SBI Digital Asset Holdings from Japan to set up a similar digital market infrastructure offering in Singapore.



SDX Vision

A trusted global integrated institutional liquidity network and ecosystem for the issuance, trading & settlement, transfer, custody of digital assets in both public and private markets as well as regulated digital securities and crypto assets underpinned by a data collection and distribution layer advanced analytics capabilities.