SMITH+CROWN

ORIGINAL RESEARCH

Security Token Overview Series

PART II: THE SECURITY TOKEN INFRASTRUCTURE STACK

This article provides a broad overview of the range of developments comprising the core of the security token infrastructure space, discussing the security token issuance protocols, overall trading ecosystem, trade settlement and token custody aspects of the security token universe while examining the technical and compliance-related aspects of each of these features.

Overview

The widely anticipated securities token revolution is often presented as the virtually inevitable extension of the cryptocurrency and blockchain ecosystems' growth and development. Yet, even if one agrees that this is the most accurate and fitting description of this trend, one must also acknowledge that the trend is built upon a number of foundational innovations and developments comprised of both technical and compliance elements. Understanding the multiple facets of these distinct elements of the security token universe is essential in appreciating how the security token trend is likely to develop and function. Perhaps most importantly, it is critical to appreciate what elements remain to be developed before the trend fully takes hold.

Conceptually, the security token ecosystem divides into technical- and compliance-oriented builds. This division rests upon the fundamental distinction between the technical measures required to enable a security token ecosystem to function, and the regulatory and compliance elements ensuring the compliant nature of transactions involving securities tokens. At the same time—and despite the importance of acknowledging the separation between the technical and the regulatory-focused—the ultimate distinction between these two often blurs, leaving the boundaries between the technical and the regulatory rather indistinct in practice. That said, maintaining this distinction helps to frame a general understanding of the space and its development within a context of continuing regulatory uncertainty that remains a fundamental influence on the direction of technical constructions shaping how products are developed. This awareness also usefully reinforces an appreciation of how the larger space's maturation will ultimately be contingent upon advances in each of these two spheres.

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This article, the second in Smith + Crown's series on Security Tokens, takes a broad overview of the range of developments comprising the core of the security token infrastructure space. In doing so, it discusses the security token issuance protocols, overall trading ecosystem, trade settlement and token custody aspects of the security token universe, exploring both the technical and compliance-related aspects of each of these features. Subsequent articles will explore in greater detail each of the above elements of the security token ecosystem.

Security Token Infrastructure Developments

THE FOUNDATIONS OF THE SECURITY TOKEN INFRASTRUCTURE STACK: ISSUANCE PROTOCOLS

Given how security tokens are intended to be regulatory compliant vehicles throughout their entire lifecycle, the issuance protocols governing their creation are of particular importance. Emerging security token issuance protocols uniquely allow issuing platforms to create security tokens with a variety of embedded features and controls governing different aspects of the tokens' issuance and circulation. While most security tokens are being developed upon the Ethereum blockchain, security tokens tend to vary from Ethereum's standard ERC-20 tokens in important ways. Programmable restrictions upon transfer—including time-based resale holds, requirements for KYC and AML certifications to be completed prior to token transfers, or for checks to ensure that the total number of holders remains below a stipulated level—extend security token's attributes beyond ERC-20 tokens'. While there are a number of issuance platforms emerging, exploring their nuances will form the basis of a subsequent article in this series. At a high level, however, an argument could be made that the fundamental similarities of the different protocols are more substantial than the arguably more subtle distinctions between them.

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SECURITY TOKEN TRADING: MOVING BEYOND EXISTING CRYPTO EXCHANGES

Unlike the so-called utility tokens that have heretofore dominated the cryptocurrency space and have been traded on a variety of unregistered crypto-focused exchanges, security tokens have a different set of trading requirements. Specifically, once issued, stringent regulations for security tokens require investors to trade securities only upon registered exchanges. In the United States, security token trading venues are themselves required to meet the conditions of regulated national exchanges or Alternative Trading Systems (ATSs), a designation that ensures at least a minimum of published rules, as well as market and trading oversight. While there is a core distinction between national exchanges and those designated as ATSs, (which are merely required to obtain Broker-Dealer licenses and file form ATS with the Securities and Exchange Commission acknowledging their intent to operate) they share a core set of rules related to best practices and market integrity. This is primarily a result of ATS operators' obligation to acquire Broker-Dealer licenses and join a self-regulatory organization, normally FINRA. This largely assures a substantially higher standard of behaviour relative to issues such as fiduciary responsibility, fair-dealing, and funds management. Ultimately, the emergence of a network of registered securities token trading venues is likely to encourage a wider range of participants, and equally to establish the conditions and provide the guarantees necessary to attract the interest of institutional audiences considering entering security token markets compared to the world of utility tokens and unregistered crypto exchanges.

SECURITY TOKEN SETTLEMENT: DOCUMENTING THE COMPLIANT NATURE OF SECURITY TOKEN TRADES

Given their status as securities, security tokens face a number of additional burdens relative to so-called utility tokens. Amongst these are a number of requirements relative to when tokens can be traded, and who is legally entitled to hold them. Many of the details of these restrictions are related to the nature of the particular exemptions to outstanding securities law issuers employ to allow them to legally issue unregistered securities. In the United States these include the Reg D, Reg A+, Reg S, and Reg CF exemptions to the Securities Act. Many security tokens, for instance, will face a prohibition on resales to non-accredited investors during an initial 12-month period after issuance. Most will also face restrictions on the number of total token holders. Settlement services capable of verifying the trades' suitability and compliance and documenting this in a regulator-acknowledged manner will thus emerge as critical facilitators of the emerging security token ecosystem. While trades completed in-house—between two previously identified investors both using an exchange based in the same country—may not need such services, trades across exchanges or national boundaries will likely require confirmation that the identities and qualified investor status of both parties is confirmed in order for fully regulatorily-compliant trades to be completed. Any expected influx of institutional investors into the space is likely to be particularly dependent upon the development of approved settlement providers.

SECURITY TOKEN CUSTODY: THE MISSING LINK ALLOWING INSTITUTIONS AND PROFESSIONALS TO ENTER THE SPACE

The final element of the security token infrastructure stack is the series of custody providers who represent an emerging class of firms catering to institutional

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investors in the space. Institutional investors typically require professional custodianship of their assets to ensure that assets are not stolen or inadvertently lost, a requirement institutions bring with them from traditional markets. Its effective absence has represented a significant yet often overlooked impediment for institutional investors looking to enter the space. While settlement appears as a largely commoditized service, the range of prominent names looking to develop settlement services—including a number of crypto-native startups as well as major names in the financial industry including Fidelity and most recently IBM—strongly suggests a consensus view that token custody services will likely represent both an important enabler of the security token ecosystem's expansion, as well as a lucrative opportunity in its own right.

Conclusion

AN EMERGING INFRASTRUCTURE UNDERPINNING THE EMERGENCE OF SECURITY TOKENS

The security token era is too frequently presented as a virtually inevitable outgrowth of the rise of cryptocurrencies and blockchain technology. However, as the above brief introduction already suggests, it is more accurately considered as a somewhat intricate structure reliant upon a number of important, purpose-built innovations. While each element of the security token infrastructure stack contains numerous participants sharing fundamental approaches and concerns, there are also subtle yet important differences among them.

The remaining articles in this series will begin to explore in greater detail the specific elements of the security token infrastructure stack described above. A central theme will remain appreciating the important nuances among different approaches to building out specific aspects of the ecosystem, and reflecting upon the implications of those different approaches for the developing security token universe. This approach should lead to a better understanding of the fluid nature of the emerging set of structures upon which the security token era will be constructed. Ultimately, this should provide a strong sense of this process as a contingent one that, rather than being a virtually inevitable process and outcome, is likely to eventually assume a final form that will be dependent upon specific choices as well as external influences emanating from technological, market, and regulatory contexts.

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