Fund administration in a digital assets world

*Written by **Muhammod Khan**, Fund Controller, Pontoro and **Simon Ware**, Product Associate Director.*

The rapid digitization of private markets continues to open up investment opportunities for a larger, more diverse pool of investors, giving GPs more flexibility to manage liquidity and source alternative capital, while giving investors access to previously out-of-reach, higher-yield investments through innovations such as tokenization. Fund administration too has been revolutionized by the advent of digital assets and to remain relevant in a rapidly changing industry, fund administrators need to continually adapt and enhance their solutions.

As private markets evolve, leading managers are increasingly turning to technology, particularly tokenization, as an innovative way to unlock capital and enhance liquidity. But to fully appreciate where the industry is heading, it's worth remembering how far it has come.
As this revolution picks up pace, it's hard to imagine that as recently as the early 1990s, fund accounting and administration was largely manual and completed via Excel spreadsheets. Custody required the physical safekeeping of stock certificates, and fund audits often included the auditor's onsite presence at the custodian bank to perform a physical count of the stock certificate inventory. The practice of issuing physical stock certificates dates back 400 years. While it seems crazy to think about, this practice did not end until DTC (Depository Trust Company) was developed in the 1980s and the shift to electronic trading and digital records began. The shift revolutionized trading and the investment fund industry.

Today, tokenization is revolutionizing the way private market assets are bought, sold, and managed. This process involves creating a digital representation of a real-world asset (RWA), also known as a token. By converting fund interests or underlying assets into tokens, investors gain greater flexibility, improved market access, and the ability to fractionalize ownership. For managers, tokenization streamlines distribution, enables access to new sources of alternative capital, and

broadens their investor base.
There are many benefits of tokenization in the private markets, but a key one is enabling fractional ownership. By breaking down these large, often illiquid holdings into smaller, more fungible units, a broader range of investors can participate in the market. This fractional ownership not only democratizes access to high-value assets but also facilitates easier and faster transactions. This, combined with greater operational efficiencies and modernizing and leveraging new types of intermediaries, reduces the barriers to liquidity. As all transactions are recorded on an immutable ledger, the inherent security of blockchains enhances trust amongst investors.

While these innovations promise greater efficiency and market participation, they also introduce regulatory and operational considerations. This is where fund administrators play a crucial role in ensuring compliance and integrating these solutions into existing financial structures. It's important to distinguish between funds holding digital assets, such as cryptocurrencies or tokenized securities, and the tokenization of the fund structure, where investor interests in the fund are issued and managed as blockchain-based tokens. Each model presents unique opportunities and challenges. This is where fund administrators are critical to ensure operational and regulatory integration.

Implementation of tokenization and blockchain

With new regulatory frameworks being put in place and large institutions allocating capital to tokenized assets, tokenization is a significant technology trend. For fund administrators it is an imperative to develop and maintain a compelling and competitive service offering to remain relevant for clients and to protect revenues. As the investment fund world continues to shift from traditional LP interests to digitized fund tokens, it will be the role of third-party providers, whether they are fund admins, AIFM or custodians, to provide the necessary controls and oversight that protect both the fund managers and LPs interests.

Regulatory Compliance

One of the primary responsibilities of fund administrators is ensuring regulatory compliance. Unlike traditional assets, tokenized instruments often sit at the intersection of securities law and emerging digital asset regulation, creating a complex compliance environment. While regulatory frameworks for decentralized

finance (DeFi) and crypto assets are still evolving, initiatives like the EU's Markets in Crypto-Assets Regulation (MiCAR), US's GENIUS Act, UAE's Crypto Token Regime, Hong Kong's Virtual Asset Trading Platform Framework, and Singapore's Payment Services Act are beginning to provide structure.

According to **Andrew Henderson of Goodwin & Proctor UK LLP**, MiCAR effectively removes the distinction between crypto-assets that fall under MiFID II and those that do not. As he explains, "same activities, same risks, same rules" and "technology neutrality" are now the guiding principles shaping EU oversight of digital assets. This means custody and administration standards for tokenized assets are converging rapidly with those of traditional financial instruments.

In the United States, a similar step was taken in July 2025 with the enactment of the GENIUS Act. As highlighted by **Jeremy Senderowicz of Goodwin & Proctor US LLP**, the statute creates "a comprehensive regulatory regime governing the issuance of payment stablecoins in the United States and providing for the regulation and supervision of payment stablecoin issuers." Complementing this, the President's Working Group on Digital Assets has outlined further priorities for legislation, while the SEC has shifted its position by moving away from treating most cryptocurrencies as securities and instead approving listing standards for cryptocurrency exchange-traded products on major U.S. exchanges.

As the asset management industry penetrates the high-net worth market, regulatory scrutiny will only increase. Fund administrators must be alert and adaptable to the evolving regulatory landscape and ensure tokenized fund structures align with both existing securities regulation and emerging digital asset rules.

Custody Considerations

Under the EU's MiCAR and MiFID 2 frameworks, crypto-asset custodians must be licensed and meet strict standards on cybersecurity, asset segregation, and governance. The UAE, Hong Kong and Singapore have adopted similar regimes, requiring regulated custodians and institutional-grade safeguards. In contrast, there is currently no unified federal framework in the US – tokens could be regulated either as securities (SEC) or commodities (CFTC), though clarity is expected soon under the new administration. To accommodate these differences, fund managers and administrators should provide appropriate oversight and

consider partnering with regulated custodians, using digital asset vaults, and utilising multi-signature wallets to protect assets and meet evolving regulatory expectations.

AML Considerations

Since tokenized fund interests can be transferred more efficiently, administrators need to implement on-chain identity verification. They can integrate automated AML screening tools that cross-check investors against sanction lists, politically exposed persons (PEPs), and suspicious activity databases. Additionally, smart contract-based compliance controls such as the ERC3643, can restrict transfers to only verified investors, preventing unauthorized or illicit transactions. Using segregated digital wallets or accounts for each investor further strengthens compliance by ensuring clear ownership records and isolating potentially suspicious activity. This can also facilitate the provision of liquidity to LPs who need an exit by automating and streamlining the LP transfer process. By embedding real-time monitoring and reporting mechanisms, fund administrators can ensure that tokenized funds comply with global regulations while enabling seamless investor transfers in a secure and efficient manner.

Skills & Education

As the fund administration industry adapts to the rise of tokenized assets and blockchain-based infrastructure, upskilling staff is a strategic priority. Working with digital assets requires a new blend of technical literacy and regulatory awareness, including the basics of blockchain mechanics, smart contracts, custody models, and evolving frameworks like the EU’s MiCAR. To meet these demands, admins are investing in training programs to equip teams with the skills needed to support on-chain transactions, real-time data flows, and token-based fund structures. This shift is not just about technology but about building a workforce capable of navigating the complexities of digital finance while maintaining the same rigour and oversight expected in traditional fund services.

Fund Administration Benefits

Blockchain revolutionizes Net Asset Value (NAV) calculations by enabling real-time asset tracking through on-chain transactions, ensuring that fund valuations remain accurate, transparent and up to date. Smart contracts can automate large portions of the NAV calculation process, reducing the reliance on manual

reconciliations and eliminating errors, and improving the overall quality and integrity of data. The immutable ledger provides a tamper-proof audit trail, enhancing transparency and regulatory oversight.

Additionally, in a future with commonly adopted digital currencies, programmable smart contracts offer streamlined dividend and distribution payments, execution of automatic payouts based on pre-defined conditions. This not only eliminates delays caused by traditional banking systems, but also ensures instant and transparent earnings distribution, while reducing administrative costs. On-chain payments can eliminate counterparty risk by embedding delivery-versus-payment logic into smart contracts. This ensures, that asset transfers and payments occur simultaneously and irreversibly, making the entire process more secure for managers, administrators, and investors. The role of fund administrators will inevitably shift from a commoditized function to a value-adding partner – providing deeper analysis, and more dynamic, real-time reporting.

The Future of Private Markets: Better Liquidity Solutions

Tokenization and DeFi solutions are reshaping private markets, offering investors greater access, enhanced efficiency, and improved liquidity. As blockchain adoption accelerates, fund administrators will play an increasingly important role in the adoption of these solutions, bridging the gap between traditional finance and the new digital assets world – ensuring compliance, integrating new technology, and facilitating secondary market access. These developments promise to digitize private market investing, reduce friction, and create more globally accessible and liquid opportunities for both fund managers and investors.

If you'd like to find out more about alternative capital sourcing or how tokenization and blockchain solutions can enhance your business and how you invest, contact us directly.

About Pontoro

Pontoro is a fintech company focused on transforming the private markets by leveraging blockchain technology to bring greater liquidity, efficiency, and transparency. Its patented platform enables the tokenization of LP interests, making more asset classes more accessible through fractional ownership and digital distribution. By building the full tokenization value chain, they are unlocking secondary market liquidity and enhancing price discovery. Pontoro

empowers asset managers, fund administrators, and investors to participate more efficiently in the private markets.

How Aztec can help

If you'd like to discuss support for your digital assets strategy or any of the other themes raised in this article, please contact us.



Click here to talk to us