Arcesium®

Institutional Standards for a Digital Asset World

Manage crypto alongside your entire portfolio with the same rigor, controls, and transparency you expect from an institutional-grade operations platform

An Operational Readiness Toolkit

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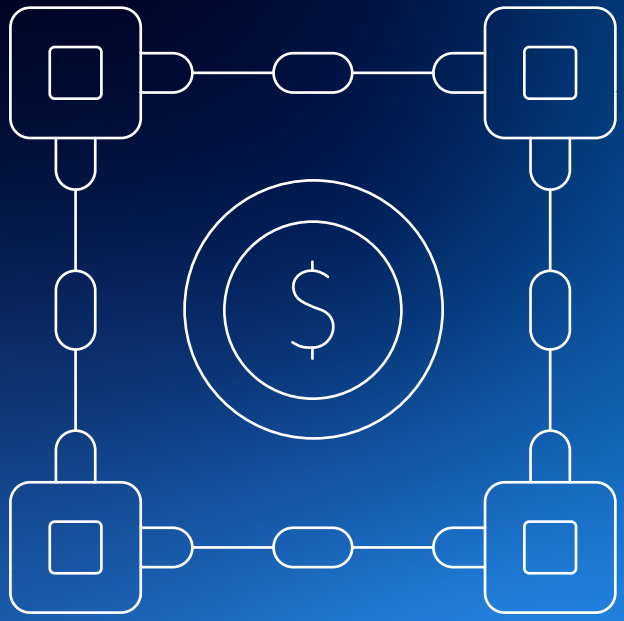


Chapter 01

01

The Institutional Imperative for Digital Assets

Digital assets have moved decisively from the fringe to the institutional mainstream. With the passage of the GENIUS Act[1], the approval of spot Bitcoin and Ethereum ETFs, and the entry of global banks and asset managers into crypto markets, the question is no longer whether institutions will participate, it is whether their operations can keep pace with their investment ambitions.

Institutional adoption is accelerating. According to a survey of 352 institutional decision-makers by Coinbase and EY-Parthenon:

- **86%** of institutional investors hold or plan to allocate to digital assets.
- **59%** target allocations exceeding 5% of AUM.[2]

AIMA and PwC report that:

- **55%** of hedge funds now have digital asset exposure, up from 47% in 2024.[3]

And Coalition Greenwich finds that:

- **42%** of participating firms are deploying sophisticated strategies including long/short and multi-strategy and index approaches.[4]

Yet operational infrastructure remains fragmented. The digital asset ecosystem was built by technologists and traders, not for institutional-grade operations, resulting in a landscape of point solutions that lack the depth, governance, and integration required by institutional investors.

The firms best positioned to scale digital asset strategies are those building unified, institutional-grade operating infrastructure across digital and traditional assets, not relying on fragmented point solutions.

1. The GENIUS Act (Guiding and Establishing National Innovation for U.S. Stablecoins), signed into law July 2025, establishes a federal regulatory framework for payment stablecoins and signals broader institutional digital asset regulation.
2. Source: Coinbase & EY-Parthenon, 2025 Institutional Investor Digital Assets Survey, January 2025.
3. Source: AIMA & PwC, 7th Annual Global Crypto Hedge Fund Report, 2025.
4. Source: Coalition Greenwich, "Digital Asset Trading 2025: A Market in Transition," March 2025.

01

The Institutional Imperative for Digital Assets

The Cost of Fragmentation

Where Fragmentation Hurts

- ☒ Teams spend hours reconciling data instead of executing value-added work
- ☒ Crypto P&L and positions are maintained in spreadsheets
- ☒ Audit readiness requires weeks of manual preparation
- ☒ New exchange onboarding takes months

How Unification Transforms Operations

- ☑ Data is validated once and trusted across workflows
- ☑ Digital and traditional assets are managed in a single book of record
- ☑ Audit-ready records are produced automatically
- ☑ New venues are onboarded rapidly through centralized connectivity

01

The Institutional Imperative for Digital Assets

From Framework to Implementation

Institutional digital asset operations require more than connectivity, they require a **unified operating model** across data, workflows, and controls.

The next section outlines five pillars that define what "institutional-grade" means in the context of crypto operations practice. Arcesium's platform is purpose-built across each dimension, delivering a single, integrated system rather than fragmented solutions.

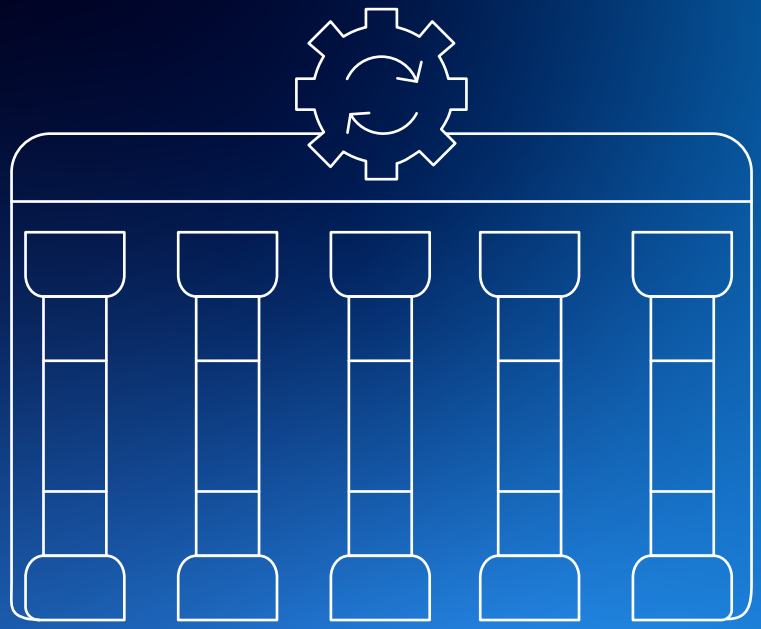
How to Use This Toolkit

This toolkit is designed for COOs, CFOs, CTOs, and operations leaders at hedge funds, asset managers, and alternative investment firms. Whether your firm is entering digital assets for the first time, expanding an existing crypto strategy, or a crypto-native firm formalizing operations for institutional allocators, the framework applies.

Start with the pillars most aligned to your current challenges. Use the maturity assessment and readiness checklist to identify gaps and leverage the evaluation questions to guide platform selection.

Crypto-native firms will find the pillars particularly useful for identifying where existing expertise needs to be wrapped in institutional-grade controls, governance, and reporting to meet LP and auditor expectations.

Five Pillars of Institutional-Grade Digital Asset Operations



Chapter 02

Five Pillars of Institutional-Grade Digital Asset Operations

The following five pillars define what institutional-grade means in the context of crypto operations. Each pillar includes evaluation criteria and key questions to guide platform assessment.

Five Pillars of Institutional Digital Operations

Multi-Asset Unification	Combining diverse digital assets into a single platform
Institutional Accounting Depth for Crypto	Advanced accounting for digital asset transactions
Derivatives and Complex Instruments	Handling sophisticated financial products
Reconciliation and Data Integrity	Ensuring accuracy and consistency of data
Managed Services and Operational Readiness	Outsourced support for smooth operations

Five Pillars of Institutional-Grade Digital Asset Operations

Pillar 1: Multi-Asset Unification

One Platform. One Book of Record.

This is the defining characteristic of institutional-grade infrastructure.

Institutional firms must be able to manage digital assets within the same operational framework as traditional investments. Running parallel systems creates data silos, reconciliation gaps, and inconsistent reporting.

Most crypto platforms operate as standalone systems. Institutional platforms unify digital and traditional assets within a single data model and book of record.

What to Look For

- Support for crypto, derivatives, equities, fixed income, and private assets in one platform
- Consistent accounting, reconciliation, and reporting across asset classes
- A single, unified data model, not bolt-on integrations

Key Questions

- Can digital and traditional assets positions, P&L, and cash be viewed in a single report without reconciliation?
- Are accounting policies (lot relief, marking, FX handling) applied consistently across asset classes?
- Is crypto a native asset class or a bolt-on module?

Five Pillars of Institutional-Grade Digital Asset Operations

Pillar 2: Institutional Accounting Depth for Crypto

Crypto-native platforms typically provide basic cost-basis tracking. Institutional firms require full accounting rigor: fair value reporting, multiple lot relief methods, and configurable policies aligned to evolving standards.

What to Look For

- Multiple lot relief methods configurable per fund
- Fair value and cost basis reporting
- Full tax lot traceability across all transaction components
- A dedicated crypto asset model recognizing dual roles (store of value+ medium of exchange)

Why dual-role matters:

Most crypto-native platforms model coins as either a currency or an equity, forcing a single accounting treatment onto an asset that behaves as both. This creates distortion. When a fund purchases Bitcoin with USD, the coin behaves as a financial instrument (store of value). When that same Bitcoin is used to purchase Ethereum or to settle fees, it functions as a medium of exchange.

Institutional-grade systems support both roles and distinct trade scenarios: coin purchased with fiat, traditional assets purchased with coin, and coin-to-coin exchanges, each with its own settlement, FX, and P&L implications.

Equally important, coin-denominated trade components (e.g., fees, commissions) should generate their own tax lots, enabling precise cost basis tracking and P&L attribution at the component level .

Use Case: CFO Preparing for Audit

A CFO must produce financials for a growing crypto portfolio. Auditors require fair value reporting separate from cost basis, full tax lot traceability across every coin-denominated trade component (including fees charged in BTC on a USD-settled trade), and evidence that the chosen lot relief method was applied consistently. With institutional-grade accounting, tax lots, valuations, and policies are automatically applied and fully traceable. Without it, teams reconstruct records manually from exchange data.

Five Pillars of Institutional-Grade Digital Asset Operations

Accounting Depth: Institutional vs. Crypto-Native Platforms

Capability	Crypto-Native	Institutional-Grade
Lot relief methods	FIFO only or limited selection	Multiple methods (FIFO, LIFO, AVCO, HIFO, specific lot) with per-fund configuration
Fair value vs. cost basis	Cost basis only	Both, with configurable reporting policies
Cross-currency marking	Limited or manual	Automated multi-currency marking and conversion
Tax lot on fees/charges	Trade level only	Separate tax lots for each coin-denominated component (trade, settle currency, commissions, exchange fees) with independent lot relief and P&L attribution.
Crypto asset model	Modeled as currency OR equity	Dedicated asset class with dual-role awareness
Accounting policies	One-size-fits-all	Configurable per fund, per asset class, per strategy

Five Pillars of Institutional-Grade Digital Asset Operations

Pillar 3: Derivatives & Complex Instruments

Institutional crypto strategies are moving rapidly beyond spot trading to include futures, perpetuals, and increasingly, crypto options. Operational infrastructure must keep pace with this complexity to avoid introducing manual workflows, reconciliation breaks, and reporting inconsistencies.

Crypto options are rapidly becoming a core component of institutional activity, making **institutional derivatives infrastructure essential**.

What to Look For

A platform should provide:

- Support for futures and perpetuals (coin- and stablecoin-margined)
- Automated funding rate processing and P&L attribution

Cross-currency settlement and margin tracking. For crypto options:

- Support for linear, inverse, and OTC structures
- Automated valuation, lifecycle, and expiry processing

Partial coverage leads to manual workarounds as activity scales.

Key Questions to Evaluate

- Does the platform support futures and options across venues?
- Are funding rates and option events automated or manual?
- Can it handle multiple settlement structures without workarounds?

Five Pillars of Institutional-Grade Digital Asset Operations

Pillar 4: Reconciliation & Data Integrity

Institutional digital asset strategies span multiple exchanges, custodians, and prime brokers, each with unique data formats, fee structures, and reporting cadences. Reconciliation at scale requires automation, configurability, and intelligent exception management.

What to Look For

- API-based ingestion from exchanges and custodians
- End-to-end reconciliation coverage across transaction, position, and balance for crypto exchanges, brokers, and custodians
- Configurable matching for exchange and custodian files and exception workflows
- Multi-currency fee handling

The Data Advantage

A flexible, unified data foundation enables firms to ingest, validate, and harmonize digital and traditional data, supporting rapid onboarding of new venues and data sources without re-architecture.

Look for a data platform that supports all metadata, time-series, transactional, and referential data for digital assets with a SQL query interface for analysis.

Impact: Improves accuracy, reduces operational workload, and ensures real-time visibility across the portfolio.

Five Pillars of Institutional-Grade Digital Asset Operations

Pillar 5: Managed Services & Operational Readiness

For many firms from traditional asset managers entering crypto for the first time to crypto-native funds scaling for institutional allocators, the challenge is not just technology, it is expertise. Building internal crypto operations capabilities takes time.

Managed services reduce the operational learning curve and ensure best practices from day one, particularly valuable for firms entering digital assets without deep in-house crypto operations expertise

What to Look For

- Co-managed or fully managed digital asset operations
- Expertise in crypto accounting, reconciliation, and reporting
- Integration with existing operating models

Use Case: Hedge Fund Launching Crypto Allocation

A $5 billion AUM hedge fund wants to allocate to crypto but has no internal expertise in crypto accounting, exchange reconciliation, or digital asset reporting. Rather than hiring a dedicated team which could take 6–12 months to recruit, onboard, and operationalize, the office engages a managed services provider with demonstrated crypto operations expertise. The provider handles day-to-day accounting, reconciliation, and reporting within the same service relationship that already covers the office's traditional asset operations. The allocation launches in weeks rather than quarters, with institutional-quality controls from day one.

Assessment Tool: Evaluating Your Digital Asset Operational Readiness

Chapter 03

Assessment Tool: Evaluating Your Digital Asset Operational Readiness

Use the following maturity assessment to evaluate where your firm stands across the five key dimensions of institutional digital asset operations. This framework can help identify priority areas for investment and guide platform selection.

Where Do You Stand Today?

Use this framework to assess your current operating model:

Dimension	Foundational	Developing	Institutional-Grade
Multi-Asset Unification	Separate systems for crypto and traditional assets; manual consolidation	Partial integration; some shared reporting but distinct data models	**Unified Book of Record:** across all asset classes with consistent policies
Accounting Depth	Basic cost-basis tracking; single lot relief method	Multiple lot relief methods, and some fair value support	**Full Institutional Accounting:** Multiple lot relief methods, dual-role asset model, and configurable policies per fund
Derivatives Coverage	Spot only; derivatives in spreadsheets	Basic perpetual futures support	**Full Derivatives Support:** Perpetual futures (coin-margined + USD- margined) with funding fee and P&L attribution
Reconciliation	Manual download and reformat; high break rate	Partial API connectivity; some automation	**Automated & Scalable:** Configurable file ingestion from exchanges with automated parsing; configurable matching; full exception management
Managed Services	No external operational support; all internal	Vendor provides support for traditional assets only	**Integrated Managed Services:** Spanning crypto and traditional asset operations

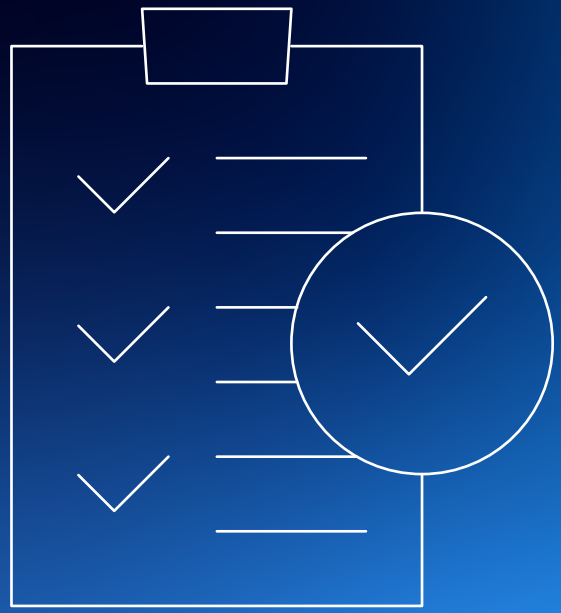
Assessment Tool: Evaluating Your Digital Asset Operational Readiness

Operational Readiness Checklist

Use this checklist to identify operational gaps and understand their business impact. Each item maps to one or more of the five pillars.

- **Dedicated crypto asset class:** With dual-role awareness and component-level tax lot tracking for coin-denominated fees and settlement. Ensures accurate P&L, proper tax lot tracking, and financial statements that withstand auditor scrutiny.
- **Multiple lot relief methods, configurable per fund:** Gives CFOs and controllers flexibility to meet evolving regulatory and investor reporting requirements without manual workarounds.
- **Crypto perpetual futures with funding fee and P&L attribution:** Replaces spreadsheet tracking with structured ingestion of funding fees and realized P&L from exchange files, with correct attribution across perpetual and coin positions.
- **Lifecycle events and crypto ETFs in the same platform as traditional assets:** Prevents operational silos that fragment reporting when airdrops, forks, or staking events occur.
- **Configurable exchange data ingestion with automated file parsing:** Reduces daily reconciliation effort by automating file ingestion, parsing, and routing to downstream applications, catching breaks faster than manual workflows.
- **Unified reconciliation across digital and traditional assets:** One process and one set of exception management tools, not parallel workflows that increase headcount and risk.
- **Flexible data platform that harmonizes crypto and traditional data:** Positions your firm to onboard new exchanges, custodians, or data sources without extended integration timelines.
- **Scalability and 24/7 market support:** Ensures operational infrastructure does not become the bottleneck as your digital asset strategy grows.
- **Incremental activation without system migration:** Reduces implementation risk, preserves existing workflows, and enables your firm to enter crypto at its own pace.
- **Institutional infrastructure standards (SOC, security, audit trail):** Provides the governance foundation LPs, auditors, and regulators expect, applied equally to digital and traditional assets.

Regulatory Readiness:
Preparing for the New Era



Chapter 04

04

Regulatory Readiness: Preparing for the New Era

The regulatory environment for digital assets is evolving rapidly. The passage of the GENIUS Act establishes a federal framework for stablecoins and signals broader institutional digital asset regulation. Market structure legislation continues to advance, and firms need operations platforms that are built for compliance from the ground up. Notably, nearly half (47%) of institutional investors surveyed by AIMA and PwC confirm that the more favorable US regulatory environment is prompting them to increase digital asset allocations.[5] **Firms must be prepared to adapt accounting, reporting, and operational processes without replatforming.**

Key Regulatory Readiness Capabilities

Configurable accounting engine: As crypto accounting standards evolve, platforms must adapt accounting policies without system overhaul. Look for per-fund, per-asset-class policy configuration.

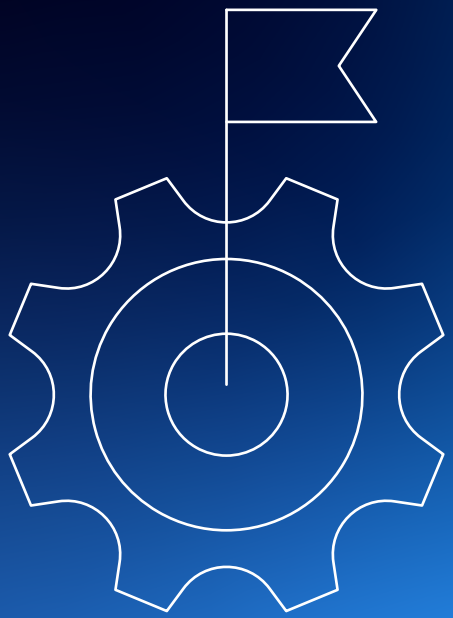
Comprehensive audit trail: Every transaction, valuation change, and reconciliation action should be fully traceable. Firms and their auditors require the same level of documentation for digital assets as for traditional investments.

Investor confidence: Demonstrate to LPs and auditors that your digital asset operations are governed by the same institutional-grade controls as the rest of your portfolio.

Firms that build compliant infrastructure today will be best positioned as regulation matures.

5. Source: AIMA & PwC, 7th Annual Global Crypto Hedge Fund Report, 2025.

Closing the Gap Between Ambition and Operations



Chapter 05

05

Closing the Gap Between Ambition and Operations

Institutional adoption of digital assets is accelerating. Firms across the alternatives landscape are allocating to crypto, expanding into derivatives, and preparing for an evolving regulatory environment. However, **operational infrastructure remains a constraint.**

The five pillars outlined in this toolkit define what it takes to operate digital assets with institutional rigor. The assessment framework and readiness checklist provide a structured starting point for evaluating where your firm stands today and where the gaps are. Firms that invest in unified, scalable infrastructure today will be best positioned to grow, adapt, and compete. Whether your firm is entering digital assets for the first time or expanding an existing crypto strategy, the operational foundation you choose today will determine how efficiently, confidently, and competitively you can operate tomorrow.

Ready to Evaluate Your Options?

Arcesium helps hedge funds, asset managers, and alternative investment firms bring institutional-grade technology to their digital asset operations through a unified platform that connects data, workflows, and controls across the entire investment lifecycle, without fragmenting your operational stack.

See how a unified approach to digital asset operations works in practice.

Request a working session or consultation to get started. →

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