



INDUS VALLEY
PARTNERS



FIN VALLEY 9.0

Break the Mould

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Executive Summary

How can the fund leverage centralized **data systems** and **tokenization** to improve **operational efficiency**, enhance liquidity for investors, and capture unmet private market **demand**?

Context & Challenges

Multi-asset U.S. fund managing private equity & infrastructure with legacy operational systems.

► Operational inefficiencies

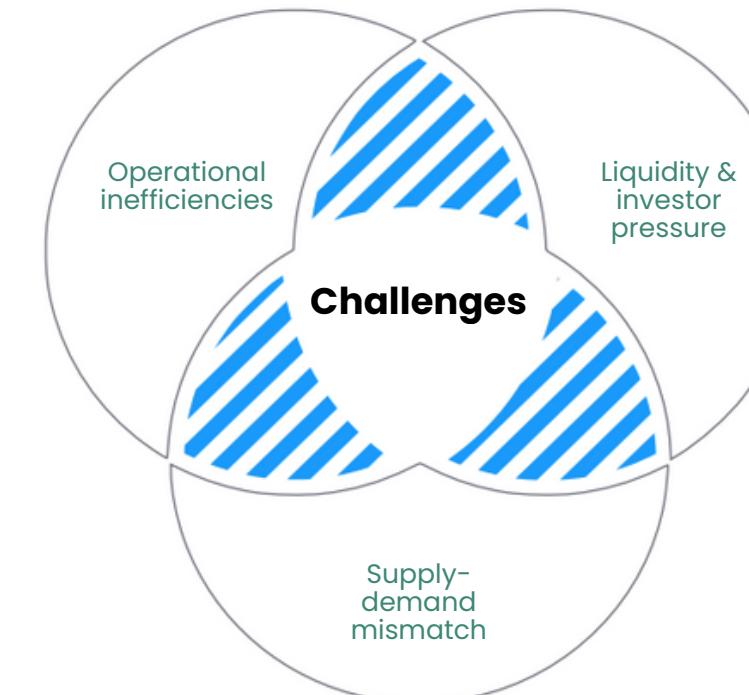
- Disparate data sources → manual consolidation
- Delayed NAV, KPI errors, lack of audit trail.
- No real-time portfolio visibility, cumbersome reporting.

► Liquidity & investor pressure

- LPs face illiquidity as funds near lifecycle end.
- GPs pressured for exit strategies in challenging markets.

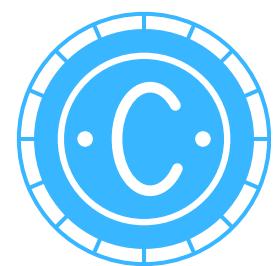
► Supply-demand mismatch

- Institutional LP availability is not meeting private capital demand
- Capital recycling pressure → slower allocations.
- Over-allocation to illiquid post-public market drawdowns.



Strategic Solutions

Drive competitive advantage by modernizing operations through data centralization, tokenization, and innovative liquidity solutions.



Adopt tokenization



Operational innovation



Liquidity management



Centralized data management system

Market Gap & Opportunity

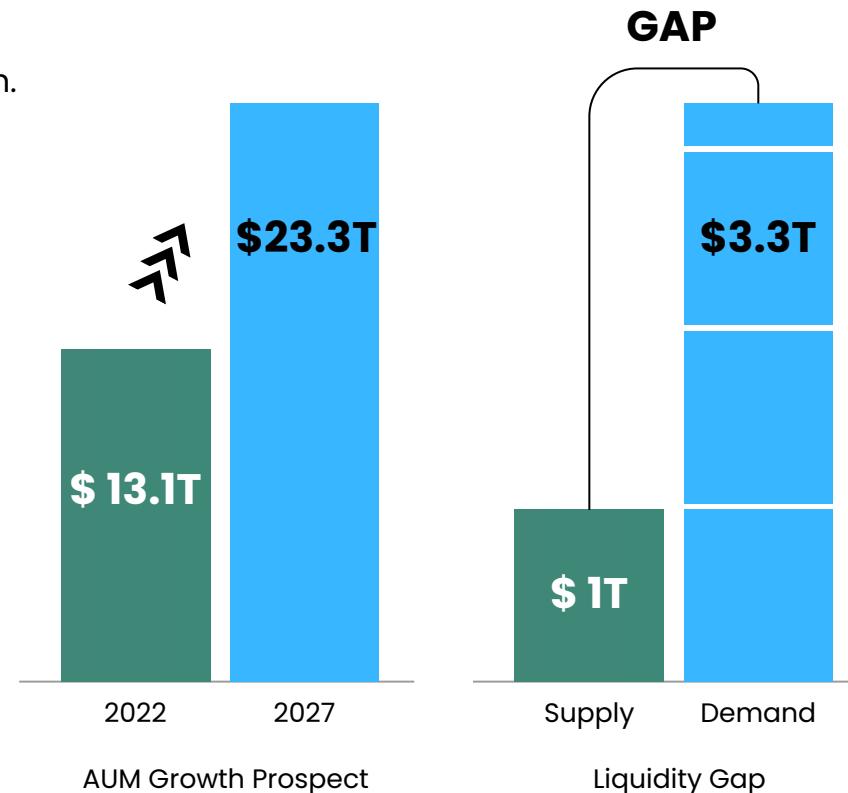
Private markets face record demand but constrained supply—creating space for innovation and tokenization.

► Tokenization to unlock liquidity & accelerate fundraising

► Blockchain models for compliance + gradual adoption

► Real-time LP dashboards to boost transparency & trust

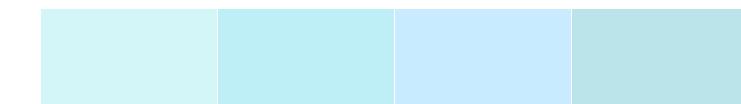
► Centralize data for accuracy, transparency, and faster reporting



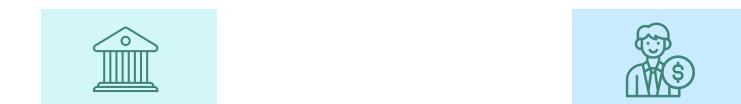
Implementation & Risks

Strategic execution demands phased rollout, regulatory alignment, and proactive risk controls to ensure adoption and trust.

► Phased integration



► Regulatory engagement on tokenization



Engagement



► Success Metrics



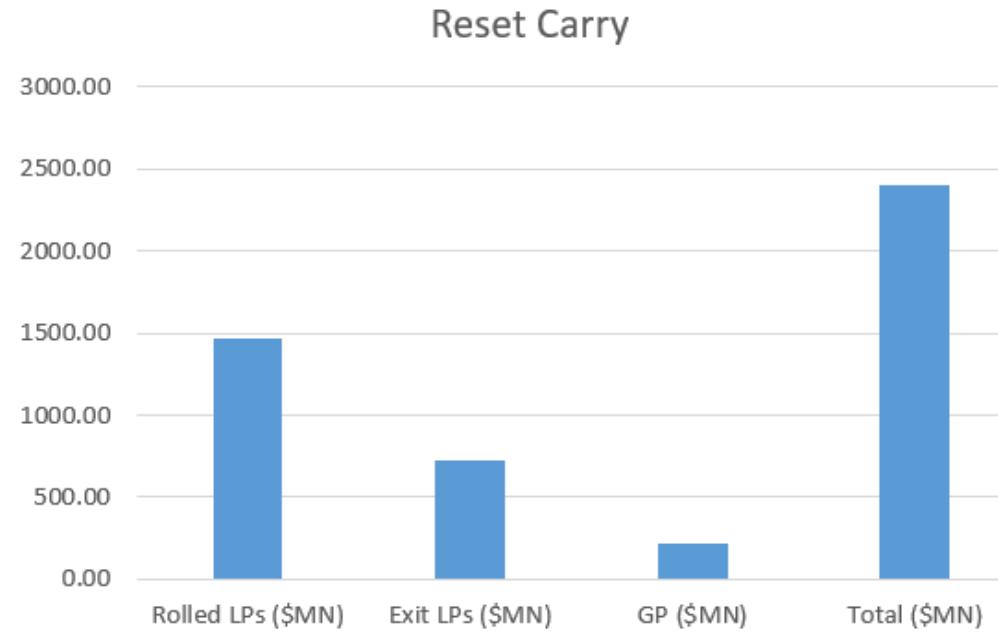
Accurate & timely NAV reporting



LP satisfaction & retention



Faster fundraising



A Reset Carry

GP-LP incentives while ensuring fair treatment of exiting and rolling investors

► Inputs

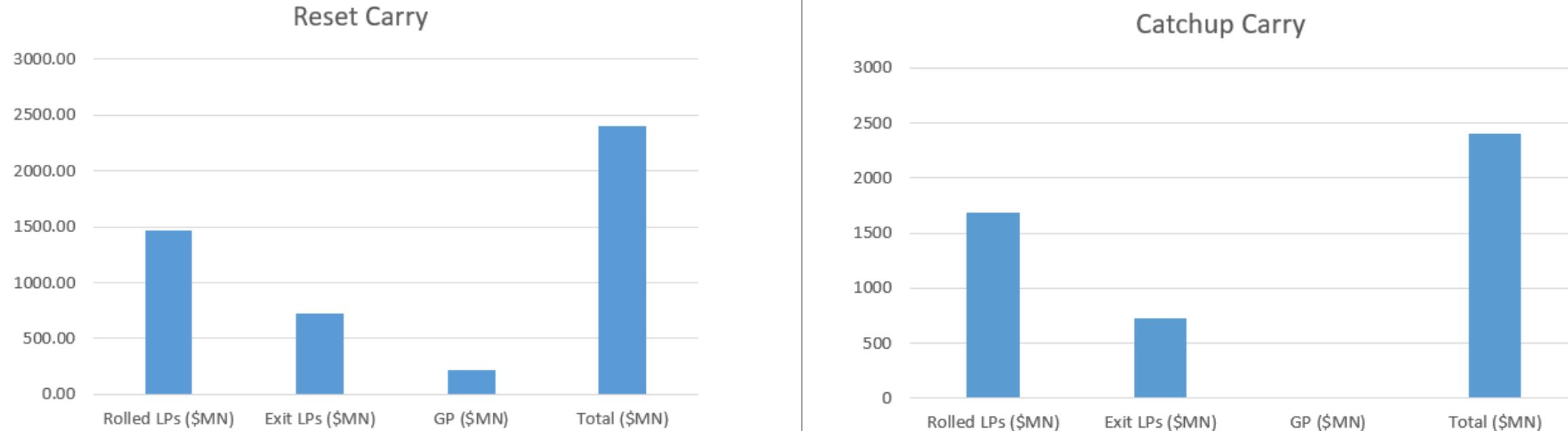
- Paid-in Capital (PIC): \$1,415M deployed by LPs.
- Current Distributions (DPI): \$1,839.5M returned.
- Residual NAV: \$566M still in the portfolio.
- Total Value to Paid-In (TVPI): \$2,405.5M

► Reset Carry Application

- Rolled LPs' NAV baseline for reset: \$396.2M.
- Portfolio grows to \$1,683.9M at T+5 → creating \$1,287.7M profit pool.
- Hurdle Requirement (8%): \$582.2M → ensures LPs achieve minimum return before GP earns carry.
- Excess Above Hurdle: \$1,101.7M.
- GP Carry (20%): \$220.3M crystallized at reset.

► Final Allocation After Carry

- Rolled LPs (net of carry): \$1,463.5M.
- Exit LPs: \$721.7M (cash-out value, unaffected by future reset carry).
- GPs: \$220.3M incentivized to drive upside.



B Catch-up / Carry

GP-LP incentives while ensuring fair treatment of exiting and rolling investors

► Inputs

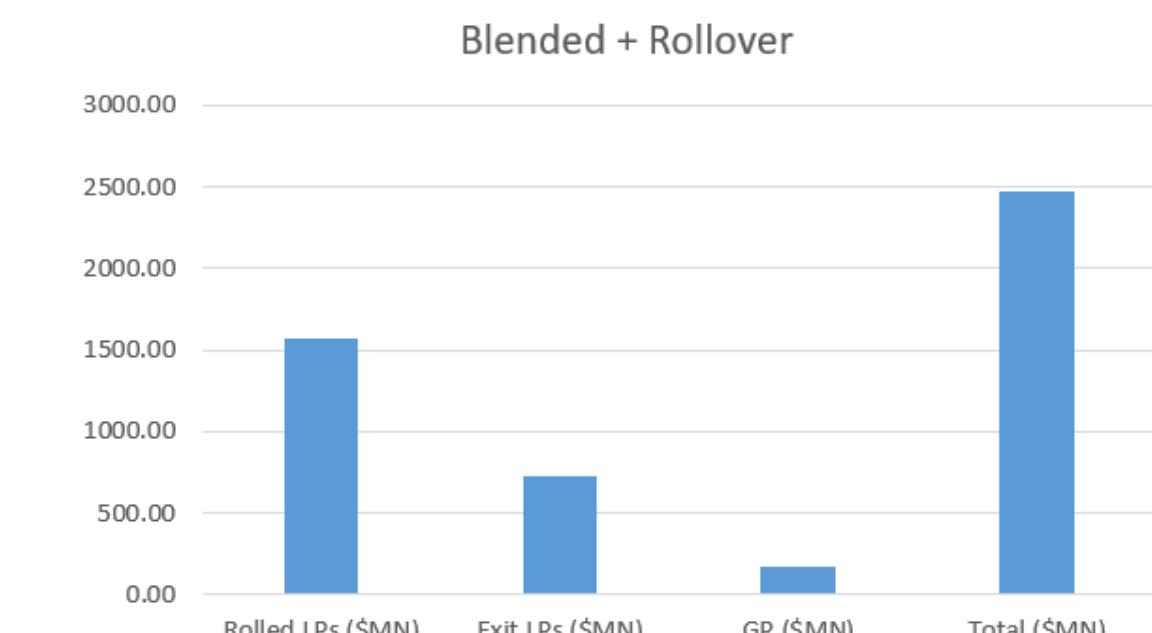
- Paid-in Capital: \$1,415M
- Distributions (DPI): \$1,839.5M
- Remaining NAV: \$566M
- Total Value (TVPI): \$2,405.5M
- Fund Life: 15 years
- Split: 70% Rolled LPs (\$1,683.9M), 30% Exit LPs (\$721.7M)

► Hurdle Check

- Hurdle Rate (8%) → Required Value at T+5: \$4,488.6M
- Actual Value at T+5: \$2,405.5M
- Result: Actual < Required → No GP Carry

► GP Carry

- Rolled LPs (70%) = \$1,683.9M
- Exit LPs (30%) = \$721.7M
- Target Carry: 20%
- Achieved Carry: \$0**



C Blended Carry + Rollover GP

GP-LP incentives while ensuring fair treatment of exiting and rolling investors

► Inputs

- Paid-in Capital: \$1415 MN
- DPI: \$1839.5 MN
- NAV: \$566 MN
- TVPI: \$2405.5 MN
- Rolled LPs: 70%
- Exit LPs: 30%
- Hurdle Rate: 8%
- Carry: 20%
- Net IRR: 8.5%
- Reduced Carry Scenario: 10%

► Profit Allocation

- Total Profit = 1287.65
- Hurdle cleared → Excess above hurdle = 1101.70
- GP Carry (20%) = 110.17
- GP Rollover = 19.81 → grows to 84.19 at exit
- LP Allocations → Rolled LPs: 1573.68
- Exit LPs: 721.65

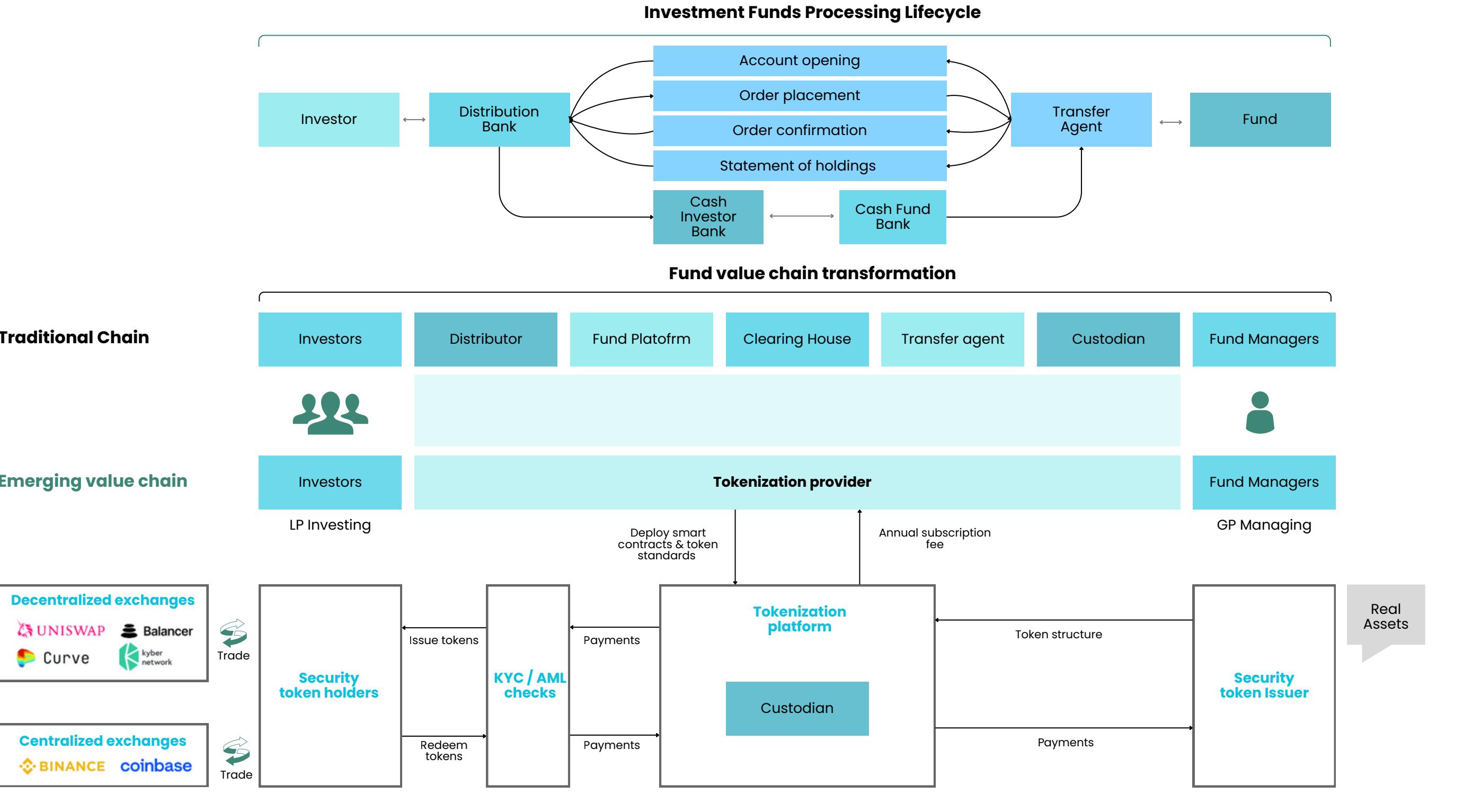
Click to go



Model

Tokenization of Fund XYZ

How can Fund XYZ implement a tokenization framework that provides secondary liquidity for LPs, attracts new investors, and preserves both regulatory compliance and GP control while creating a scalable path for future market integration?



① Lets investors trade with each other instead of waiting for the fund to sell assets.

② Makes it easier and faster for investors to get their money out or invest in.

③ Creates a more open and flexible market that's easier for everyone to access.

④ This adaptation enables players to stay competitive, streamline processes, and reduce opex for a better experience

Empirical Analysis

Demonstrates how tokenized fund interests transform illiquid PE commitments into tradable units. **LP2 exits mid-way, New LP21 steps in**, tokens reprice with NAV growth, and GP retains governance while earning management fees and carry.

► Fund Setup

- LP2 commit initial capital.
- Each LP2's commitment is represented as tokens (\$10M = 1,000,000 tokens at \$10 each).
- GP charges 2% management fee annually on commitments.

► Secondary Liquidity Event

- LP2 (CalPERS) wants to exit early.
- Instead of waiting 7–10 years for fund maturity, LP2 sells 500,000 tokens at \$13/token to a new investor (New LP21, "Shivam").
- This creates a secondary market liquidity without disturbing the fund itself.
- The fund NAV is unaffected – only ownership changes.

► NAV Growth Over Time

- Fund NAV grows annually from \$100M to ~\$195M by Year 7.
- Token values rise from \$10 (Year 0) → \$19 (Year 7), tracking NAV.

► Profit Distribution

- At exit (Year 7), profit is distributed.
- GP takes 20% carry on profits (carried interest).
- LP2 exited early, crystallizing gains at \$13/token instead of holding until \$19.
- New LP21 captures upside post-entry.

Click to go ➤ Secondary Liquidity Model

A Public Blockchain

Fully decentralized, open blockchain, anyone can participate

- ▶ All transactions are publicly visible, ensuring high transparency. Security is robust, maintained by a large, distributed network of validators/miners.
- ▶ Public blockchains often face scalability limits due to network congestion and consensus complexity, resulting in slower transaction speeds and higher fees (gas costs).
- ▶ Regulatory frameworks are still evolving, with concerns around anonymity and compliance. Access is global and unrestricted, catering to both retail and institutional investors.
- ▶ Ideal for decentralized finance (DeFi), global asset transfers, and open-access applications. Challenges include high transaction fees, slower throughput, and regulatory uncertainties.

Example



BlackRock USD Institutional Digital Liquidity Fund

Illustrative metrics for investors



Price



Market capitalization



Number of transactions

A Private Blockchain

Permissioned blockchain controlled by a consortium or single entity.

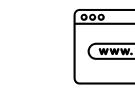
- ▶ Low transparency – only authorized participants see records. Moderate security depending on controlling entity.
- ▶ High scalability optimized for controlled participants. Lower cost due to custom infrastructure without gas fees.
- ▶ Higher regulatory acceptance with controlled, auditable environments. Investor access limited to KYC-approved/whitelisted participants.
- ▶ Used by institutional funds and closed investor groups. Drawbacks include centralization risk, less transparency, and trust issues.

Example



Spruce Subnet Pilot

Illustrative metrics for investors



Permissioned user logs



Consortium reports



Private transactions

A Hybrid Blockchain

Mix of public and private elements – sensitive data private, transactions verified publicly.

- ▶ Balanced transparency with private sensitive info and public proofs. High security leveraging private security and public immutability.
- ▶ Medium-high scalability with private sensitive operations and public validation. Costs medium, depending on public/private split.
- ▶ Balanced regulatory acceptance providing audit trails while limiting exposure. Configurable investor access, retail or institutional.
- ▶ Designed for funds wanting openness plus control (e.g., cross-border PE/VC). Drawbacks include complexity and higher setup cost.

Example



UBS Tokenize – uMINT

Illustrative metrics for investors



Public validation logs



Transaction proofs



Audit trail

A Off-Chain Registry + On-Chain Proof

Assets recorded off-chain, with cryptographic proof stored on-chain.

- ▶ Moderate transparency with off-chain core data and only hash/proof public. High security for proof integrity, reliant on off-chain trust.
- ▶ Very high scalability as off-chain systems handle volume, blockchain stores proofs only. Lowest cost with minimal blockchain use.
- ▶ High regulatory acceptance due to familiar registry structure with blockchain audit. Investor access mostly institutional, dependent on registry rules.
- ▶ Suited for funds needing regulatory-first compliance (PE, REITs, private credit). Drawbacks: less decentralization, dependence on off-chain registry integrity.

Example



Aspen Digital Token (Aspen Coin)

Illustrative metrics for investors



Hash count



Registry audits

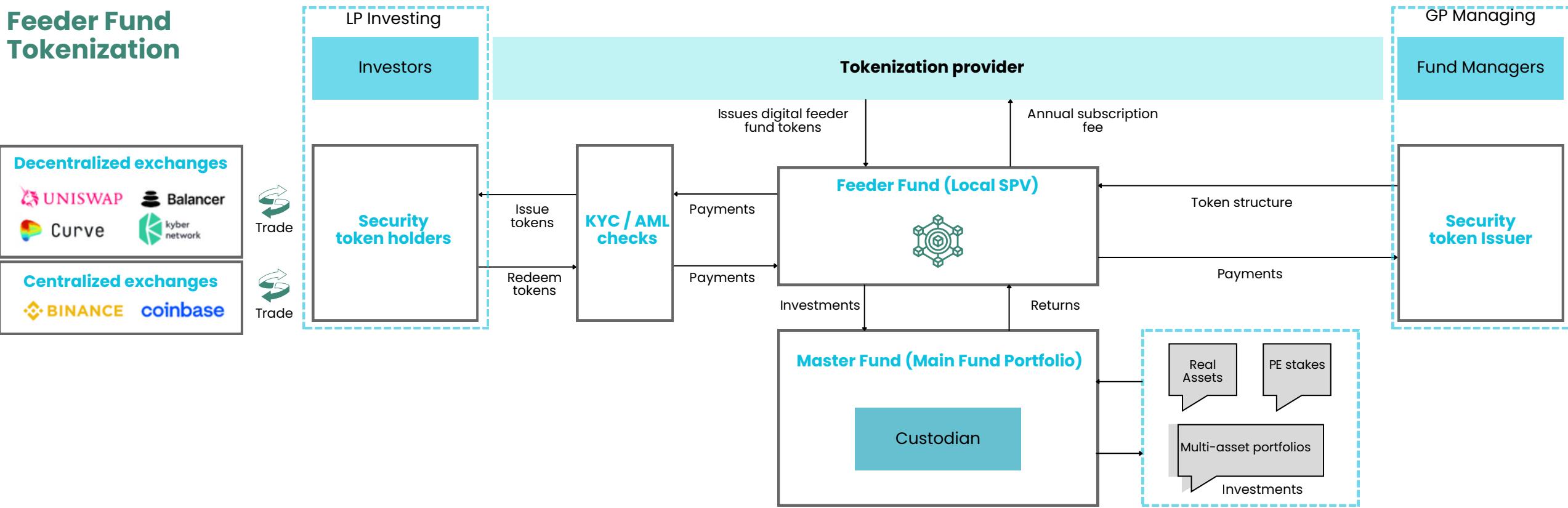


Proof integrity logs

Launching New Funds

Launching New Funds Made Simple: Feeder Fund Tokens Let Investors Buy Digital Shares, Stay Compliant, and Move Capital Efficiently While Unlocking Controlled Liquidity for LPs and GPs.

Feeder Fund Tokenization



A Feeder Fund Tokenization

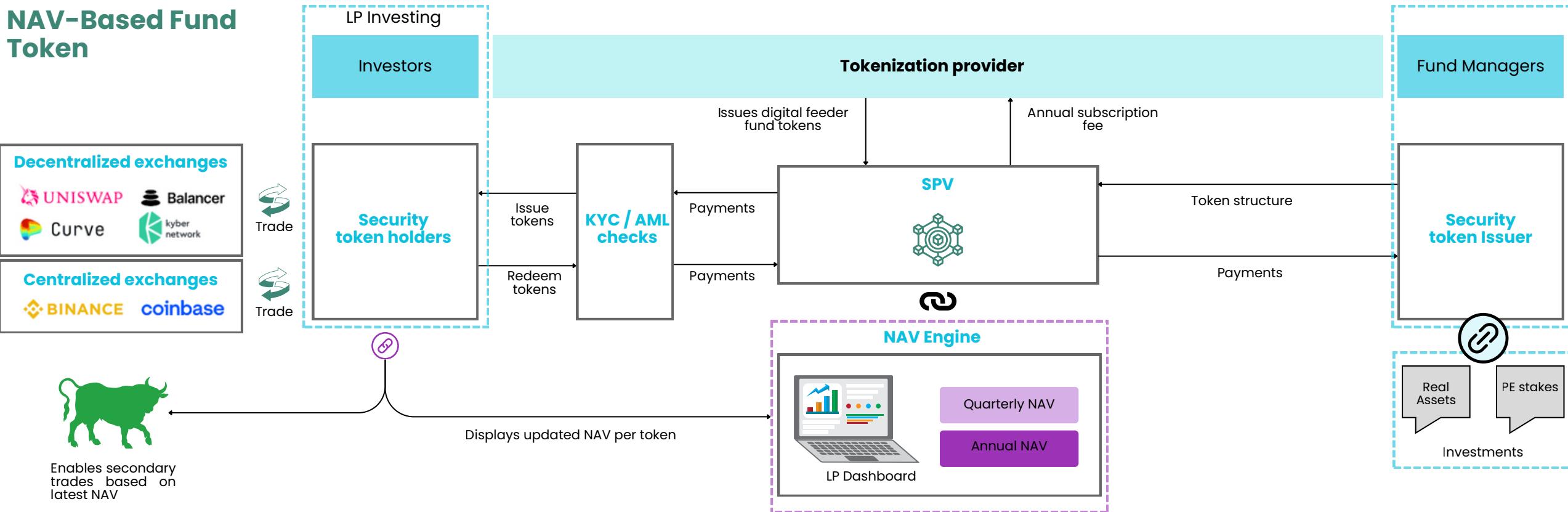
Investors buy tokens of feeder, which invests in the main fund

► **Advantage:** Easy adoption, compliance friendly

► **Challenges:** Still indirect, adds a layer to investments

Fund ABC	Fund XYZ	New Fund
Feeder funds don't unlock liquidity here they just collect new capital.	Feeder funds are mainly jurisdictional wrappers for onboarding investors into a master fund. They don't solve secondary liquidity & LPs still hold exposure to the portCo via traditional LP interests.	Can create a local feeder fund in a particular jurisdiction, tokenize LP ownership, and feed it into the master fund.

NAV-Based Fund Token



B NAV-Based Fund Token

Investors hold proportional ownership of fund. Liquidity is periodic

► **Advantage:** Simple structure, whole fund access

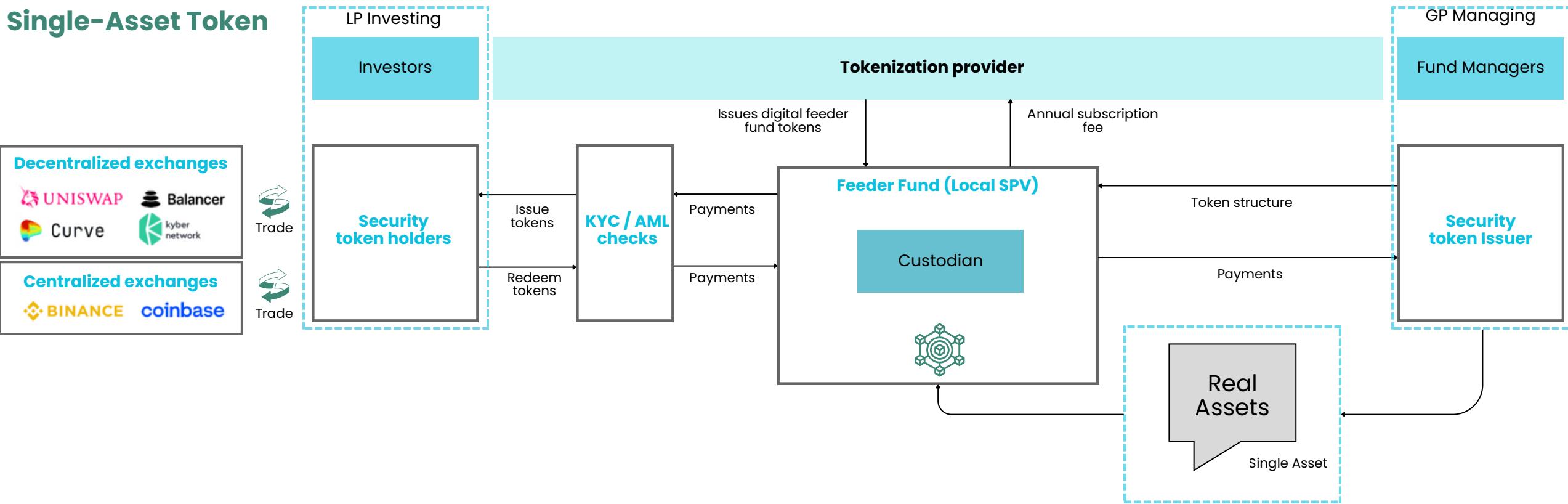
► **Challenges:** Works for broad LP access, not day-trading.

Fund ABC	Fund XYZ	New Fund
NAV-based token not beneficial; fund underperforming, illiquid, high risk, NAV not attractive	Can tokenize LP stakes in the fund using NAV-based tokens.	Ideal for onboarding, supply-demand match, controlled secondary trading

Launching New Funds

Launching New Funds Made Simple: Feeder Fund Tokens Let Investors Buy Digital Shares, Stay Compliant, and Move Capital Efficiently While Unlocking Controlled Liquidity for LPs and GPs.

Single-Asset Token



Single-Asset Token

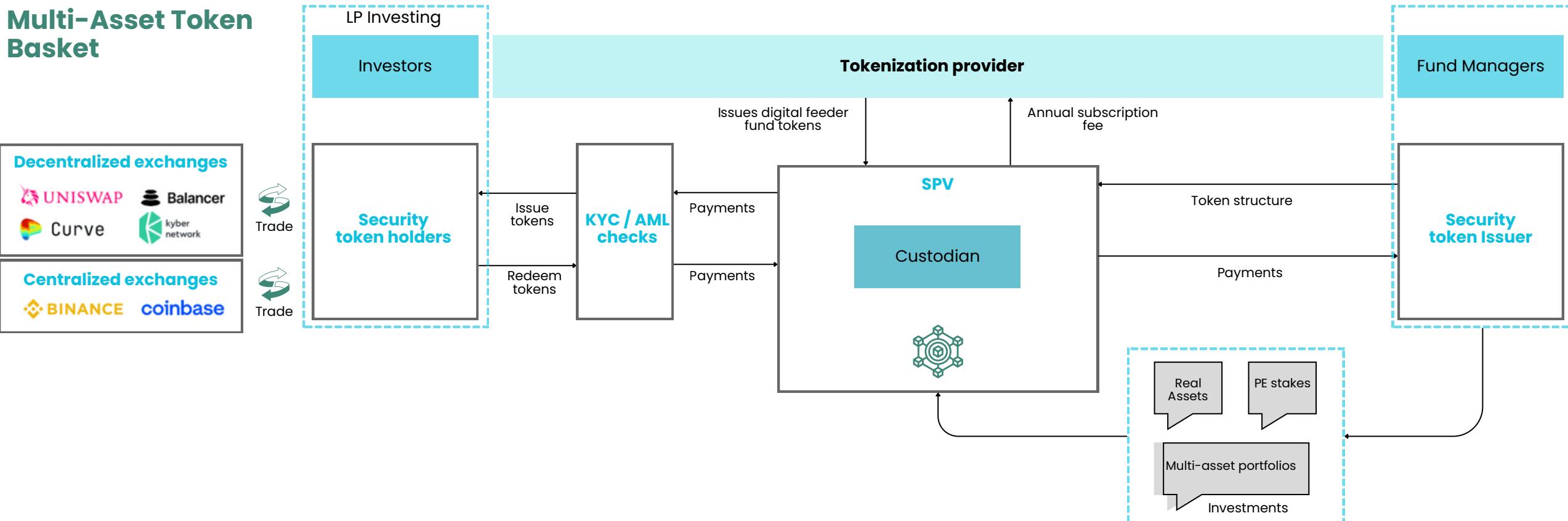
A specific asset is wrapped into a token. Investors trade that only

► **Advantage:** Transparency, niche investors

► **Challenges:** Concentration risk

Fund ABC	Fund XYZ	New Fund
Tokenizing weak assets exposes LPs to high risk; illiquidity remains a problem.	Tokenizing the single portfolio company (portCo) allows LPs to trade fractional ownership, unlocking secondary liquidity. Risky if IPO fails so it benefits the Investors	Could tokenize a single asset if offering early access to flagship investments, but usually better to use NAV-based or multi-asset token baskets for diversified exposure.

Multi-Asset Token Basket



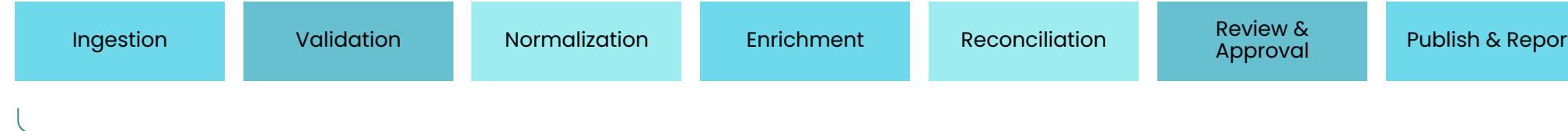
Multi-Asset Token Basket

Investors hold proportional ownership of fund. Liquidity is periodic

► **Advantage:** Simple structure, whole fund access

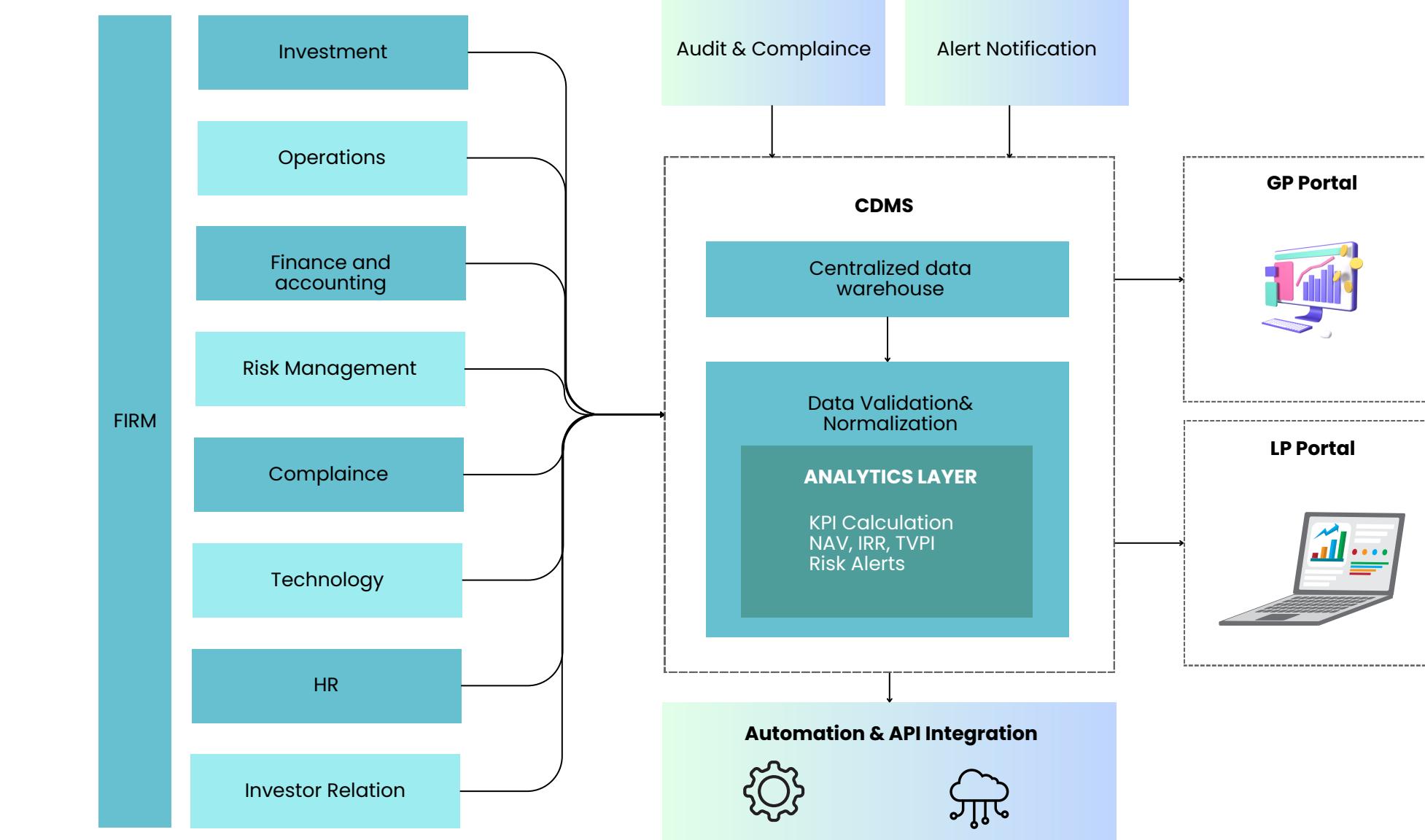
► **Challenges:** Works for broad LP access, not day-trading.

Fund ABC	Fund XYZ	New Fund
With only 2 assets, a basket offers minimal diversification. Risk-adjusted returns may still be unattractive for LPs	Only 1 asset exists. Tokenizing a single company in a "basket" adds little value. Better to use Single Asset or NAV-based tokens.	Ideal for new fund: bundle multiple early-stage assets, provide LPs diversified exposure



Traditional Operations

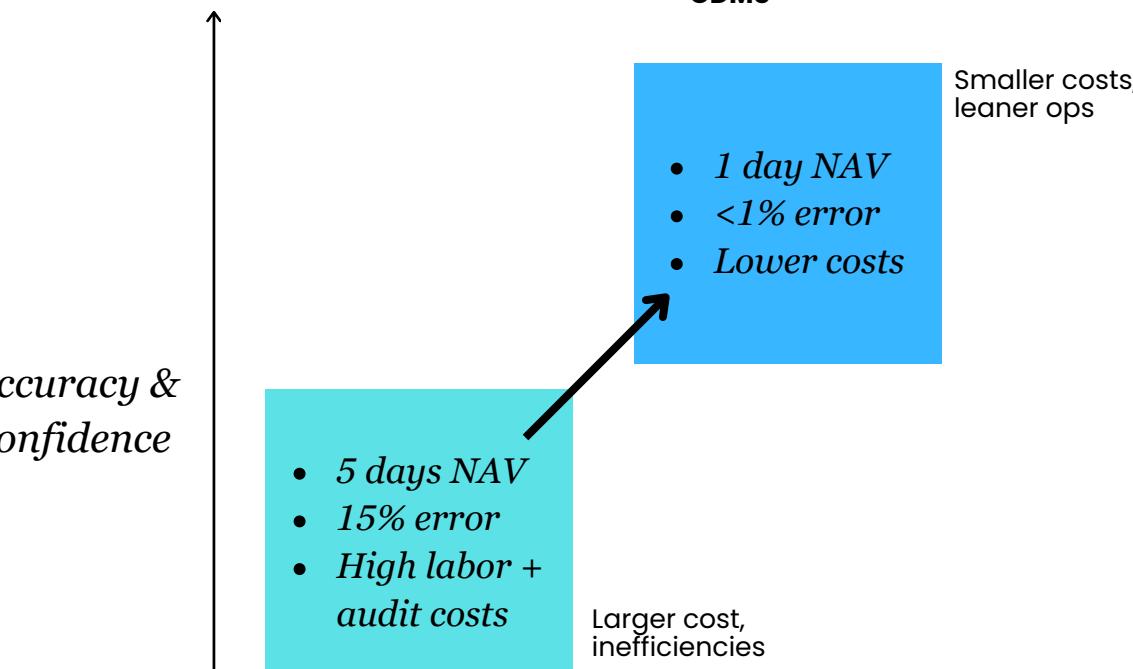
Centralized data management system



C Issues in Traditional systems

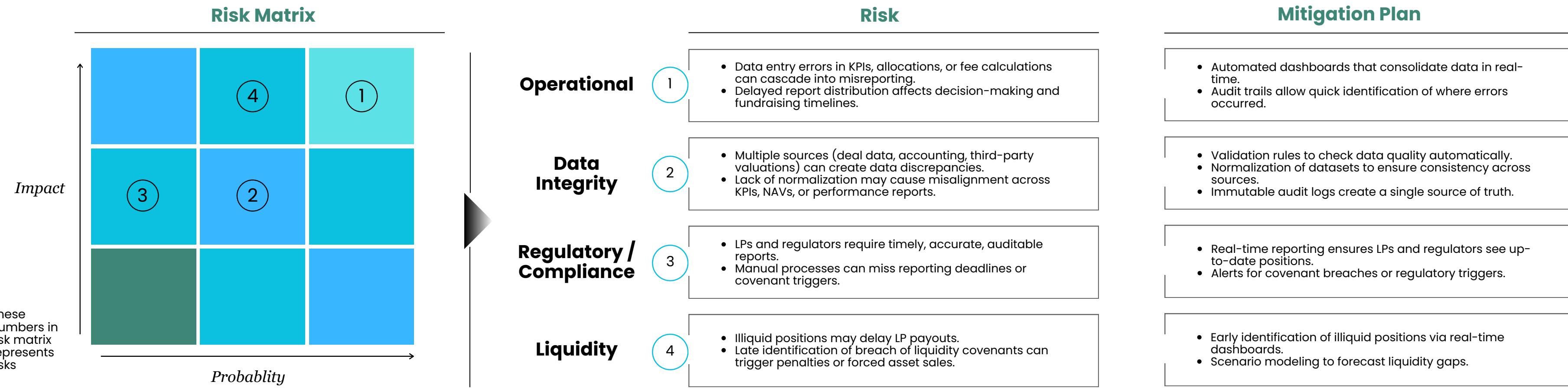
A specific asset is wrapped into a token. Investors trade that only

Legacy Systems	Time-Consuming Calculations	No Centralized Audit	Inconsistent Data Quality
<ul style="list-style-type: none"> Data spread across multiple portals, Excel sheets, and Bloomberg feeds. Manual consolidation creates delays and increases errors. 	<ul style="list-style-type: none"> NAV calculation takes several days due to manual processes. KPI & covenant tracking prone to mistakes. 	<ul style="list-style-type: none"> Difficult to validate or backtrack decisions. Compliance checks require extra effort and manual reconciliation. 	<ul style="list-style-type: none"> Lack of normalization and validation across funds and asset classes. Errors propagate from data ingestion → reporting → dashboards.

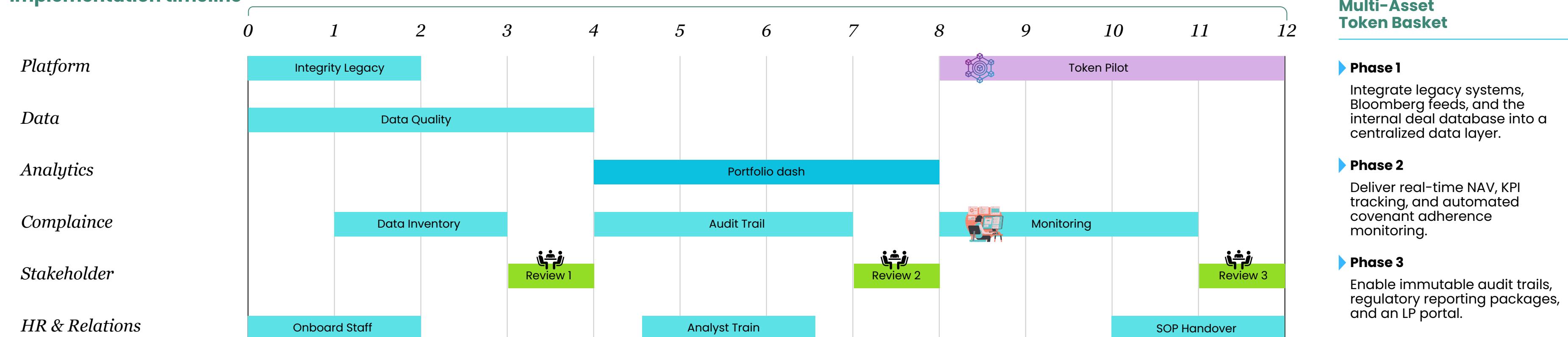


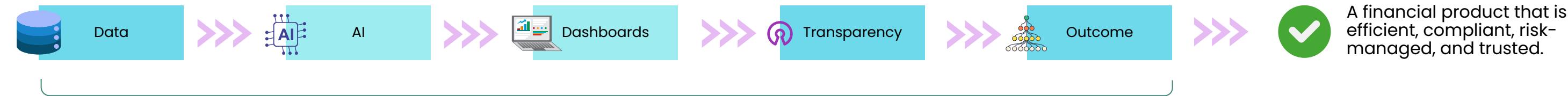
Time & Efficiency

Centralized fund data enables real-time NAVs, automates KPI tracking, reduces manual errors, and ensures regulatory adherence—delivering risk-managed ROI and operational efficiency across Ops, Tech, and Compliance teams.

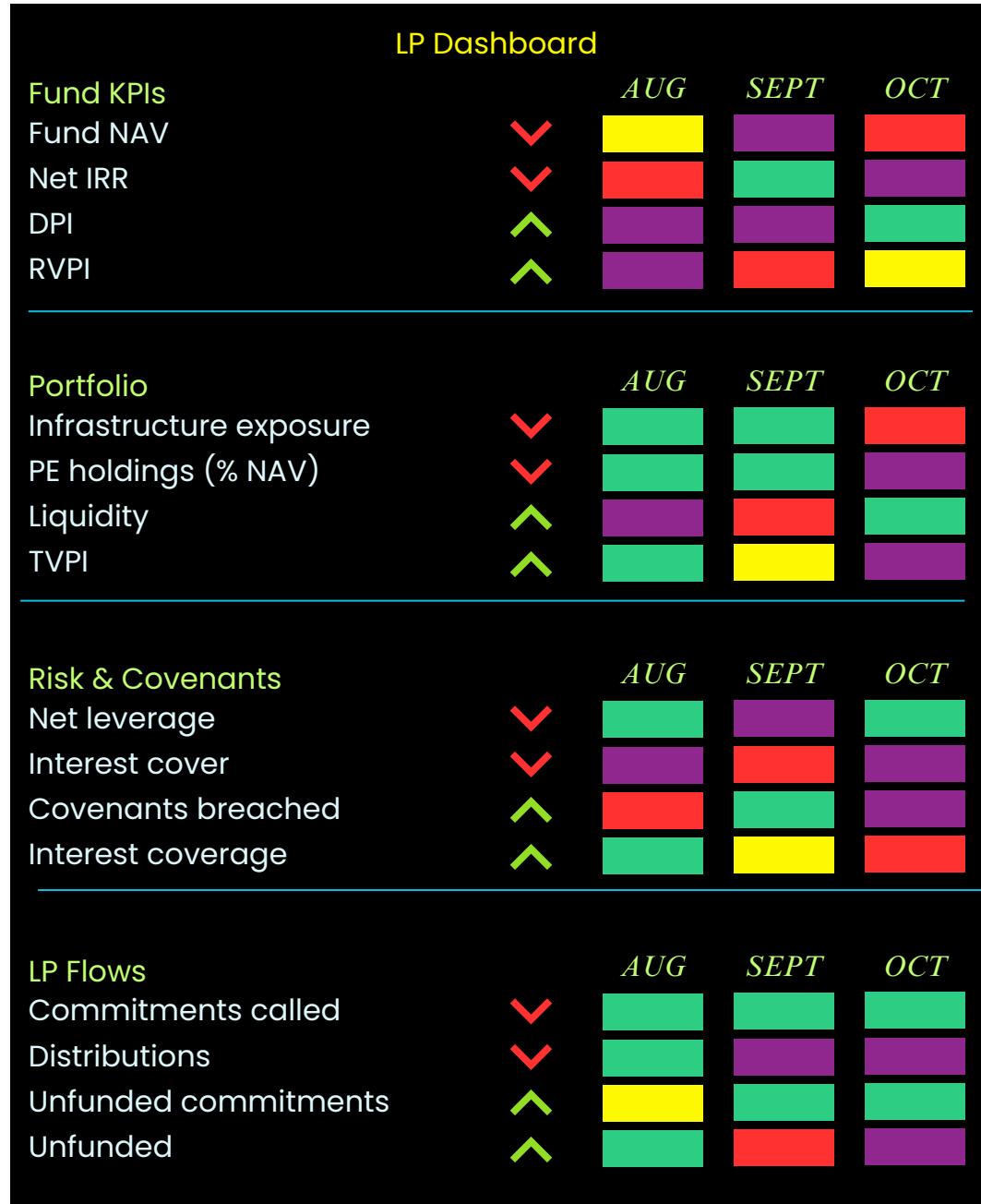


Implementation timeline





A Reporting Dashboards



A Transparency & LP/GP Asks

Clear, real-time fund visibility builds LP trust.

Real-time NAV and IRR

Show a live view of fund health by asset valuations, cash flows, and fees from the fund administrator into one place, refreshing daily and following ILPA reporting definitions so everyone trusts.

Deal and asset granularity

Let LPs click into each asset to see revenue, EBITDA, debt, covenants, with KPIs standardized and Excel trackers synced to the BI dashboard so definitions are consistent.

Distribution and liquidity history

Display calls, distributions, DPI/TVPI, and upcoming payout schedules in one timeline so commitments and liquidity planning are clear over the next 30–90 days.

Risk and covenant alerts

Monitor credit agreements and covenant tests continuously and trigger red/amber/green alerts with automatic emails or portal notifications, keeping a record when thresholds are overridden.

Scenario analysis visibility

Offer toggles driven by the fund model and macro assumptions so users can compare outcomes for early exits, GP-led continuation, or tokenized liquidity.

Audit trail and data lineage

Keep time-stamped logs of sources, NAV versions, and calculation steps, with clickable links in the dashboard so LPs and reviewers can verify how every number was produced.

A AI adoption for product

Forecasts, risks, and scenarios—actionable signals through AI

Forecast clarity

Predict next-12 months NAV and Net IRR with confidence bands so decisions aren't based only on history.

Early risk signals

Score each asset for liquidity, leverage, and compliance to surface issues before covenants are hit.

Data trust

Auto-detect anomalies in KPIs, NAV bridges, and covenant calcs; show what changed and where it came from.

LP confidence

Push personalized alerts on distributions, pacing, and exposures; cut inbound queries with proactive updates.

Scenario readiness

Run quick Base/Bull/Bear simulations to see TVPI/DPI ranges and breach probabilities; choose actions fast.

Efficiency lift

Reduce manual checks and reporting lag so analysts focus on value creation, not reconciliation.

APPENDIX

RESET CARRY

INPUTS	Values
Paid in capital	1415.00
DPI	1839.50
NAV	566
TVPI	2405.50
Rolled LPs	70%
Exit LPs	30%
Hurdle rate	8%
Carry	20%

Value Splits	Value in \$MN
Rolled LPs share	1683.85
Exit LPs share	721.65

Reset Carry Calculations	
	Value in \$MN
Rolled NAV baseline	396.2
Rolled pool value at T+5	1683.85
Profit	1287.65
Hurdle requirement	582.15
Excess above Hurdle	1101.70
GPs Carry	220.34

Final Allocation	
Rolled LPs (after carry)	1463.51
Exit LPs	721.65
GP Carry	220.34

CATCHUP CARRY ONLY

INPUTS	Values
Paid in capital	1415.00
DPI	1839.50
NAV	566
TVPI	2405.50
Rolled LPs	70%
Exit LPs	30%
Hurdle rate	8%
Carry	20%
NET IRR	8.50%

Value Splits	Value in \$MN
Rolled LPs share	1683.85
Exit LPs share	721.65

Hurdle Check	
Fund life in yrs	15
Minimum Required value	4488.62
Actual value at T+5	2405.50
Actual(2405.5)<Required(4488.62)	
GPs Carry	0

Catch up carry Model Summary	
Rolled LPs	1683.85
Exit Lps	721.65
GP Carry	0

BLENDED CARRY+CATCHUP+GPROLLOVER

INPUTS	Values
Paid in capital	1415.00
DPI	1839.50
NAV	566
TVPI	2405.50
Rolled LPs	70%
Exit LPs	30%
Hurdle rate	8%
Carry	20%
NET IRR	8.50%
Assumption	
Reduced Carry	10%
GP Rollover % of NAV baseline	5%

Blended Carry Calculations	
	in \$MN
Rolled NAV baseline	396.2
Rolled pool value at T+5	1683.85
Profit	1287.65
Excess above hurdle	1101.70
GP Carry	110.17
GP Rollover	19.81
Growth Multiple	4.25
Final GP Rollover value	84.19
Profit	64.38
GP Total profit	174.55

Hurdle Check	
Hurdle requirement	582.15
Value achieved	1683.85
Value achieved is more than hurdle req	

Final Allocation	
GP total	174.55
Rolled LPs	1573.68
Exit LPs	721.65

OUTPUT

MODEL	Rolled LPs (\$MN)	Exit LPs (\$MN)	GP (\$MN)	Total (\$MN)
Reset Carry	1463.51	721.65	220.34	2405.50
Catchup Carry	1683.85	721.65	0	2405.50
Blended + Rollover	1573.68	721.65	174.55	2469.88

Appendix #3

S.No		LP1	LP2	LP21 New LP	LP3	LP4	LP5
LP Name		BlackRock PE	CalPERS Pension Fund	Shivam	Harvard Endowment	Ontario Teachers	GIC Singapore
% Allocation		12%	10%	Let's say LP2 wants to exit early → sells 500,000 tokens at \$13/token to New LP21.	8%	7%	6%
Commitment (Million)	10,00,00,000	12000000	10000000		9000000	8000000	8000000
Tokens	1,00,00,000	1200000	1000000		900000	800000	800000
Mgmt Fees	2%	240000	200000		180000	160000	160000
% Allocation New			5%	5%			
Commitment (Million)				6655000			
Tokens			500000	500000			
Mgmt Fees	2%						
NAV							
Y0	10,00,00,000	12000000	10000000		9000000	8000000	8000000
Token Value	10	10%					
Y1	11,00,00,000	13200000	11000000		9900000	8800000	8800000
Token Value	11	10%					
Y2	12,10,00,000	14520000	12100000		10890000	9680000	9680000
Token Value	12	10%					
Y3	13,31,00,000	15972000	13310000		11979000	10648000	10648000
Token Value	13	10%					
Y4	14,64,10,000	17569200	7986000	6655000	13176900	11712800	11712800
Token Value	15	10%					
Y5	16,10,51,000	19326120	8784600	7320500	14494590	12884080	12884080
Token Value	16	10%					
Y6	17,71,56,100	21258732	9663060	8052550	15944049	14172488	14172488
Token Value	18	10%					
Y7	19,48,71,710	23384605.2	10629366	8857805	17538453.9	15589736.8	15589736.8
	19						
Profit	9,48,71,710	11384605.2	629366	8857805	8538453.9	7589736.8	7589736.8
GP (20%)		2276921.04	125873.2	1771561	1707690.78	1517947.36	1517947.36
Net profit	7,38,97,368	8867684.16	303492.8	7086244	6650763.12	5911789.44	5911789.44

Housing data - for tokenization

S.No	Owner	Built-up Area (sq.ft.)	Price per sq.ft. (\$)	House Price (\$)
1	Kevin Hall	3953	\$420	\$16,62,161
2	Grace Anderson	2827	\$676	\$19,11,142
3	Lily Lee	3501	\$381	\$13,32,508
4	Nora Roberts	1579	\$875	\$13,82,253
5	Sarah Anderson	1958	\$575	\$11,24,942
6	Michael Lee	2986	\$565	\$16,88,506
7	Elizabeth Moore	4906	\$368	\$18,05,020
8	David Wilson	4804	\$428	\$20,54,818
9	Mark Rivera	2759	\$417	\$11,50,106
10	Christopher Wilson	2480	\$575	\$14,24,850
11	Aria Young	1737	\$424	\$7,36,672
12	Elizabeth Adams	2486	\$391	\$9,73,225
13	Avery Martinez	3823	\$669	\$25,56,754
14	Charles Rodriguez	1822	\$428	\$7,79,325
15	Mia Mitchell	1850	\$839	\$15,52,427
16	Grace Wright	4497	\$582	\$26,16,292
17	Charles Mitchell	3490	\$620	\$21,63,266
18	Chloe Ramirez	4842	\$812	\$39,31,526
19	Chloe Sanchez	1783	\$560	\$9,98,546
20	Abigail Anderson	4615	\$863	\$39,81,411
21	James Allen	3681	\$484	\$17,81,293
22	Ella Garcia	4636	\$892	\$41,33,966
23	Edward Brown	2015	\$897	\$18,07,751
24	Ashley Martinez	2025	\$801	\$16,22,205
25	Kevin Hernandez	4202	\$587	\$24,67,513
26	Lily Ramirez	3446	\$801	\$27,60,552
27	Paul Jones	3751	\$739	\$27,73,739
28	Joshua Harris	2176	\$538	\$11,71,315
29	Paul Robinson	2585	\$449	\$11,61,905
30	Scarlett Taylor	3661	\$451	\$16,52,180
31	Grace Smith	3984	\$761	\$30,32,683
32	Lily Campbell	3233	\$691	\$22,32,487
33	Ashley Baker	2367	\$754	\$17,84,637
34	Anthony Carter	3708	\$743	\$27,55,383
35	Amelia Roberts	4593	\$796	\$36,54,427
36	Aria Perez	4489	\$411	\$18,46,859
37	Ashley Jackson	4325	\$453	\$19,59,677
38	Sofia Hernandez	2323	\$419	\$9,72,567
39	Avery Smith	4420	\$736	\$32,52,420
40	Steven Campbell	2776	\$676	\$18,76,664
41	Charles Allen	3134	\$462	\$14,48,430
42	Edward Lopez	4251	\$593	\$25,19,400
43	Matthew Miller	4161	\$540	\$22,47,358
44	Kevin Martin	3029	\$538	\$16,30,475
45	Kevin Allen	3294	\$859	\$28,29,829
46	Paul Gonzalez	3619	\$778	\$28,13,871
47	Olivia White	3349	\$491	\$16,44,912
48	Edward Hernandez	1995	\$754	\$15,04,162
49	Anthony Roberts	2515	\$531	\$13,35,562
50	Scarlett Smith	2420	\$620	\$15,00,030
	Total	162861	\$30,713	\$10,00,00,000

LP token distribution

S.No	LP Name	% Allocation	Commitment (Million)
LP1	BlackRock PE	12%	12000000
LP2	CalPERS Pension Fund	10%	10000000
LP3	Harvard Endowment	8%	9000000
LP4	Ontario Teachers	7%	8000000
LP5	GIC Singapore	6%	8000000
LP6	ADIA Abu Dhabi	7%	7000000
LP7	Yale Endowment	5%	5000000
LP8	CPP Investments	5%	5000000
LP9	Goldman Sachs AM	5%	5000000
LP10	Temasek Holdings	4%	4000000
LP11	Fidelity PE Fund	4%	4000000
LP12	TPG Capital	4%	4000000
LP13	Brookfield AM	3%	3000000
LP14	Carlyle Group	3%	3000000
LP15	Morgan Stanley AIP	3%	3000000
LP16	Blackstone FoF	2%	2000000
LP17	KKR Fund of Funds	2%	2000000
LP18	Apollo Global	2%	2000000
LP19	Sovereign PE Fund (QIA)	2%	2000000
LP20	Family Office (Smith Capital)	2%	2000000
			100000000

Assumptions

Fund		
Input		Value
Fund Size	\$	10,00,00,000
Token Supply	-	1,00,00,000
Token Price (initial)	\$	10
GP Share	%	20
Mgmt fee	%	2
LP Share	%	80