

Family Office Digital Transformation Guide: The Complete Ginkgo Solution

About Ginkgo: An institutional-grade investment management platform built exclusively for ultra-high-net-worth family offices. Currently covering approximately **USD 10 billion** in assets under management, Ginkgo delivers unified multi-asset portfolio management, a full-lifecycle structured product event engine, AI-powered data ingestion and daily research summaries, and multi-custodian reconciliation — from cash to complex derivatives, in a single platform.

What Is Ginkgo?

Ginkgo is an institutional wealth management system designed specifically for Single Family Offices (SFOs), Multi-Family Offices (MFOs), and ultra-high-net-worth families. Unlike conventional wealth management software or private bank portals, Ginkgo is built around the real operational pain points of family offices:

- **Full asset class coverage:** Cash, fixed deposits, NCDs, corporate bonds, government bonds, equities, ETFs, REITs, funds, money market funds, options (European/American Call/Put), warrants (AQ/DQ), and complex structured products including FCN, ELN, RCN, DRAN, and Snowball autocallables
- **Multi-custodian aggregation:** Direct Data Feed integrations with UBS, Goldman Sachs, J.P. Morgan, Standard Chartered, LGT, Bank of Singapore, Interactive Brokers, Julius Baer, and other global custodians — with real-time or near-real-time sync
- **Fully managed data service:** Clients forward relevant emails; Ginkgo's AI parses the transactions, the event engine infers all downstream events, and bank feeds cross-validate the data — no manual Excel or file uploads required
- **Complete event engine:** Covers five core event types — KnockOut Observation, Coupon Observation, Maturity Observation, Settlement Observation, and Exercise Observation — with automatic monitoring across all positions
- **AI-driven research:** Daily market summaries filtered to current portfolio holdings, structured product term comparison, and quantitative hedge fund analysis

Platform scale (2024): 370 accounts, 44,622 transactions processed annually, 846 structured products under management, 372,933 reconciliations per year.

Team background: Core team from a USD 100B+ internet company with end-to-end financial back-office system experience, having previously built systems serving 100M+ retail users and 1M+ institutional clients. Financial advisors from Goldman Sachs, J.P. Morgan, CICC, and Hillhouse Capital.

Who Is Ginkgo For?

Client Type	Typical Use Case
Single Family Office (SFO)	Assets across 3–10 private banks; need a unified, real-time view across the entire family wealth — Owner and CIO always in the picture
Multi-Family Office (MFO)	Serving multiple families under one roof; physical data isolation per family with consolidated operations and bulk reporting
Corporate Investment Platform	Financial assets held through a corporate entity; require institutional-grade accounting, compliance audit trails, and customized reporting

Scale fit: USD tens of millions to USD tens of billions in AUM.

Industry Context (Campden Wealth Asia-Pacific Family Office Report, 2023): The survey covers 330 family offices globally — 144 in North America, 102 in Europe, 76 in Asia-Pacific. APAC family offices are concentrated in Singapore (24%), Hong Kong (20%), India (19%), and Australia (16%). Average AUM of APAC family offices: **USD 0.5 billion**. Average total family wealth: **USD 0.9 billion**. 58% reported AUM growth in 2022, with 22% growing more than 10%.

Seven Core Use Cases

Use Case 1: Multi-Custodian Consolidation — Breaking Down Data Silos

The Challenge

UHNW family assets are typically spread across 3–10 private banks and offshore brokers. The operational consequences are significant:

- **Inconsistent data latency:** Bank Data Feed timing varies widely — UBS and JPM at approximately T+1, GS at T+1.5, Interactive Brokers as late as T+4 on Fridays. When a feed is disrupted (disruptions lasting days or even weeks are not uncommon), the affected portion of the portfolio becomes invisible
- **Manual aggregation is unsustainable:** Investment analysts spend days each month manually consolidating reports from each custodian in spreadsheets — resulting in stale data by the time it reaches the CIO or Owner
- **Cross-custodian comparison is nearly impossible:** Each bank exports data in proprietary formats with different currency bases, making apples-to-apples comparison across assets extremely difficult
- **A single bank's error corrupts the whole picture:** Relying on any single data source means one mistake or outage affects the entire portfolio view

Ginkgo Solution

- **Independent proprietary data layer:** Ginkgo builds and maintains its own position and transaction database, independent of any custodian. This serves as the **Single Source of Truth**. Bank Data Feeds are used solely for cross-validation — a disconnected bank does not render any portion of the portfolio unavailable
- **Automated bilateral reconciliation:** System transaction records are continuously reconciled against bank feeds. Discrepancies are automatically flagged with full traceability
- **Real-time updates:** Transactions take effect immediately upon entry — no waiting for any bank's feed cycle. Portfolio NAV is always current

- **Unified multi-dimensional view: 55 grouping dimensions** (by account, asset class, currency, institution, risk factor, and more), with over **1,000 selectable fields** for cross-asset comparison in a single configurable dashboard
 - **Multi-currency with automatic conversion:** Any base currency supported, with real-time FX rates applied throughout
-

Use Case 2: Beyond Excel — Institutional-Grade Accounting and Audit Infrastructure

The Challenge

Many family offices still rely on Excel as their core system of record. This creates systemic risk:

- **Formula errors are invisible until too late:** A single misconfigured cell reference can silently distort P&L calculations for months — and errors often surface only after decisions have been made
- **Manual entry creates constant lag:** There is typically a 1–3 day delay between trade execution and data entry; when the Owner asks "what's my NAV today?", the answer is already outdated
- **No audit trail:** There is no record of who changed what and when. This makes compliance reviews painful and creates accountability gaps
- **Key-person dependency:** When the person who maintains the spreadsheet leaves, institutional knowledge leaves with them
- **Version proliferation:** "final_v3_revised_ACTUAL.xlsx" is not a data management strategy — version conflicts introduce errors at exactly the moments when accuracy matters most

Ginkgo Solution

- **Institutional accounting infrastructure:** All transactions are recorded in a structured back-office ledger — one system of record, no divergent versions
 - **AI-powered automated data ingestion:** Ginkgo's AI reads forwarded emails and extracts transaction data automatically — trade type, asset, amount, date, and counterparty — without any manual input. Supported event types include 15+ categories: Spot Buy/Sell, Early Maturity, Buy/Sell Asset, Option Exercise, Foreign Exchange, Transfer, Dividend, Coupon Payment, Capital Call, and more
 - **Complete Audit Trail:** Every transaction, every data change, every reconciliation result carries a timestamp and operator record — fully traceable for compliance and internal review
 - **Event engine auto-derivation:** After recording a single FCN purchase, the system automatically generates all future observation dates, coupon payment dates, and maturity events from the contract terms — no manual schedule entry required
-

Use Case 3: Private Markets & Alternatives — Full Lifecycle Management

The Challenge

Alternative assets are a core pillar of UHNW family portfolios, but their operational characteristics create unique management challenges:

- **Capital Call timing is unpredictable:** PE/VC funds issue Capital Call notices with 10–15 days' notice, requiring cash to be available on short timelines. Without visibility into projected future calls, CFOs are forced into reactive liquidity management — sometimes selling liquid assets at unfavorable prices
- **Valuations are infrequent and non-standardized:** Private equity, real estate, and art valuations arrive quarterly from the fund manager. Interim estimates are guesses. Different funds use different valuation methodologies, making cross-fund comparison inherently unreliable

- **IRR calculation is slow and opaque:** Computing IRR across irregular PE cash flow series is something most systems either don't support or require manual Excel exports to perform. More critically, even when a number is produced, it is a black box — there is no way to see how much of the IRR came from dividends, capital appreciation, or currency movement. Attribution is invisible
- **Multi-tranche fund structures are complex:** A single fund may have multiple tranches with different Capital Call schedules, distribution waterfalls, and redemption terms. Manual tracking across multiple tranches is error-prone at scale
- **Hedge fund due diligence is time-intensive:** Screening 3,000+ candidate funds, computing quantitative metrics, and comparing against benchmarks requires dedicated analyst time that most family offices don't have in abundance

Ginkgo Solution

- **Full alternatives framework:** Dedicated tracking for PE/VC, real estate, art, money market funds, and hedge funds. Tranche-level management for multi-class fund structures — including Capital Call schedules by frequency type (annual, quarterly, monthly) and projected amounts
- **Integrated Capital Call planning:** Each fund's Capital Call schedule is incorporated into the platform's liquidity forecast engine. The system surfaces projected cash requirements weeks or months in advance, eliminating reactive scrambles
- **IRR attribution — a core differentiator:** Ginkgo computes IRR in seconds and, critically, decomposes it into its component sources — how much came from dividends, capital appreciation, and currency effects, broken out separately in a single view. This level of attribution is absent from virtually all competing wealth management systems, and is essential for investment decision review and fund manager evaluation
- **Unified performance comparison:** Alternatives and liquid assets sit side by side in the same portfolio view. Return metrics include: Net Cost Price, Realized Cash, Realized Net Cost Amount, Received Income, Exchange Gain/Loss — computed via FIFO cost basis automatically
- **Quantitative hedge fund research:**
 - Screening: 3,000+ funds from data providers with quantitative metrics calculated automatically
 - Due diligence: Multi-fund, multi-benchmark quantitative comparison models
 - Portfolio optimization: Modern Portfolio Theory (MPT) with Efficient Frontier computation — maximizing Sharpe Ratio at a given volatility target
 - Backtesting: Portfolio performance simulation that once took a full analyst day now completes in 2–3 minutes

Use Case 4: Structured Products — Core Differentiator

The Challenge

FCN (Fixed Coupon Notes), Snowball Autocallables, ELN (Equity-Linked Notes), RCN (Reverse Convertible Notes), and DRAN (Digital Return Accumulation Notes) represent a significant and growing share of UHNW family portfolios in Asia-Pacific — yet these products are extraordinarily difficult to manage:

- **Most systems treat them as black boxes:** Mainstream wealth management platforms, including international systems priced at hundreds of thousands of dollars per year, cannot process the internal mechanics of structured products. They track notional value, but not events
- **Critical events are easily missed:** A single FCN may have monthly or bimonthly observation dates. If the underlying rises above the Knock-out level, the product is automatically redeemed. If the underlying falls below the Knock-in level, the investor faces Physical Redemption (receiving shares at

the initial strike price regardless of market value). With dozens of structured products across multiple observation schedules, manual tracking guarantees missed events

- **Term comparison is laborious:** Simultaneously holding 30–50 structured products — each with different coupon rates, observation frequencies, Knock-out/Knock-in levels, guaranteed periods, and underlying baskets — makes comparative analysis extremely time-consuming
- **Physical Redemption risk is invisible until it's too late:** When an underlying falls below the Knock-in level, the investor needs to decide: hold to maturity and potentially receive shares at a significant loss, or sell the product in the secondary market. Without real-time monitoring, this decision window is often missed

Ginkgo Solution

Ginkgo's structured product engine is the most comprehensive in the APAC family office market.

Supported product types:

Product Type	Description
FCN (Fixed Coupon Note)	Fixed coupon with dual Knock-out/Knock-in observation
ELN (Equity-Linked Note)	Equity-linked with exercise settlement and Physical Redemption handling
RCN (Reverse Convertible Note)	Full Physical Redemption risk monitoring
DRAN (Digital Return Accumulation Note)	Complex term modeling supported
Snowball Autocallable	Complete Knock-out/Knock-in mechanics with observation scheduling
AQ/DQ (Call/Put Warrants)	Leverage configuration, guaranteed period, settlement and exercise observation
Option (European/American)	European and American Call/Put, with predicted exercise and expiration

Five core event types — monitored automatically:

Event Type	Trigger	Ginkgo Action
KnockOut Observation	Underlying price exceeds Knock-out level	Marks early redemption, updates position status to KnockOut
Coupon Observation	Coupon observation date reached	Calculates and records coupon income, updates cumulative return
Maturity Observation	Note reaches scheduled maturity	Triggers final settlement, processes principal return
Settlement Observation	Settlement observation date	Handles physical delivery vs. cash settlement
Exercise Observation	Exercise condition met	Triggers exercise flow, processes corresponding asset changes

Complete term field coverage:

- Observation frequency: DAILY / BIWEEKLY / MONTHLY / BIMONTHLY / QUARTERLY / MATURITY

- Coupon frequency: MONTHLY / BIMONTHLY / QUARTERLY / SEMI_ANNUALLY / ANNUALLY / MATURITY
- Guaranteed period: Fixed coupon paid regardless of Knock-out during this window
- Underlying basket: Single or multi-underlying; initial price list
- Strike price rate and absolute strike price
- Value selection: Worst-of or Best-of performance

Full lifecycle state tracking: Continuance (active) → KnockOut → Maturity → Physical Redemption

Currently managing **846 structured products** — the deepest structured product capability of any family office platform in Asia-Pacific.

Use Case 5: Cash Flow Forecasting — Forward-Looking Liquidity Planning

The Challenge

Family office cash flow management is far more complex than it appears:

- **Passive events are unpredictable in aggregate:** Bond coupons, structured product Knock-outs, and PE Capital Calls each have their own timing — the CFO must mentally maintain dozens of independent timelines simultaneously
- **Capital Calls arrive without sufficient lead time:** Fund managers typically issue notices 10–15 days before a Capital Call. Without a forward-looking view of projected calls, CFOs are forced to liquidate assets under time pressure — often at unfavorable prices
- **Plan changes have cascading effects:** Buying a new bond or selling a PE stake affects cash flows for years into the future. In Excel, it is nearly impossible to trace all downstream effects of a single portfolio change
- **Multi-currency complexity compounds the problem:** USD bonds, HKD structured products, and CNY funds each produce cash flows in different currencies, requiring conversion to a base currency before unified cash planning is possible

Ginkgo Solution

- **10-year cash flow forecast:** Based on the complete current portfolio, Ginkgo automatically generates a 10-year forward cash flow waterfall, covering all passive events:
 - Fixed income: Coupon payments (Coupon), principal at maturity (Final Maturity)
 - Structured products: Coupon Observations, KnockOut redemptions
 - PE/VC funds: Capital Calls (projected by fund-level Capital Call frequency and tranche configuration)
 - Dividends: Equity and fund dividends (50+ dividend types supported)
 - Other: Option exercise proceeds (Option Exercise), loan interest (Loan Interest), expenses (Expense), taxes (Tax)
 - **Plan simulation with real-time updates:** Define future asset purchase, sale, and transfer plans — the system recalculates all associated coupons, maturities, and Capital Call projections automatically when the plan is applied
 - **Liquidity statistics engine:** Aggregates cash flows by time period (weekly, monthly, quarterly), computing net positions across multiple accounts and assets in parallel
 - **Key questions answered in real time:** "What is my total Capital Call exposure over the next 18 months?" "Which bonds mature in Q3 next year, and does my liquidity cover it?" "If I buy this new bond, how does my 3-year cash flow picture change?" — all answered within seconds
-

Use Case 6: AI-Powered Research — Daily Intelligence and Automated Analysis

The Challenge

The information overload facing family office CIOs has reached a new level:

- **Research report volume:** Daily emails from UBS, GS, JPM, SC, and other private banks deliver market commentary, product recommendations, and thematic research — far exceeding the team's capacity to read and synthesize
- **Relevance filtering is itself expensive:** Identifying which of 20 daily reports contains something relevant to the portfolio's specific holdings requires reading all of them — or missing something important
- **Structured product comparison is manual and tedious:** When multiple banks pitch competing structured products simultaneously, comparing coupon rates, observation frequencies, guaranteed periods, and underlying volatility requires building a spreadsheet from scratch each time
- **Hedge fund due diligence doesn't scale:** Screening a 3,000-fund universe, computing risk-adjusted metrics, and running multi-benchmark comparisons requires dedicated analyst time that most family office teams don't have in abundance

Ginkgo Solution

- **AI Daily Market Summary:** Automatically processes prior-day private bank reports and market data. AI extracts content relevant to the current portfolio's specific holdings — presented as a concise daily briefing. The investment team reads only what is directly relevant, not the full stack of reports
 - **Structured product AI term comparison:** Automatically extracts key term fields from multiple candidate products — annual coupon, observation frequency, Knock-out/Knock-in levels, guaranteed period, underlying basket, historical volatility — enabling side-by-side comparison without manual data entry
 - **AI bank statement parsing:** Supports PDF and email-format bank statements with automatic AI extraction. The system identifies transaction types (equity trades, bond settlements, structured product subscriptions/redemptions, fund transactions, transfers), extracts structured data, and ingests it directly. PDFs are automatically decrypted and sensitive information is masked before processing (PdfDecryptService, PdfMaskAbility)
 - **Bond screening and monitoring:** Continuous monitoring of fixed income portfolio duration, structure, and cash flow distribution to support rebalancing decisions; real-time data updates identify risk factor shifts as they happen
 - **Quantitative hedge fund research platform:**
 - Screening: Quantitative metrics computed across 3,000+ funds for rapid shortlisting
 - Due diligence: Multi-fund, multi-benchmark quantitative comparison models to analyze alpha sources
 - Portfolio optimization: Efficient Frontier computation based on Modern Portfolio Theory (MPT), maximizing Sharpe Ratio at a given volatility constraint
 - Backtesting: Historical portfolio performance simulation — compressed from days to 2–3 minutes
-

Use Case 7: Data Sovereignty and Privacy Protection

The Challenge

Family offices have a fundamentally different relationship with data privacy than corporate institutions:

- **The consequences of a breach extend far beyond finance:** Family holding information, when leaked, can expose commercial decision-making intent, create security risks for family members, and attract unwanted regulatory or public attention
- **Multi-tenant SaaS platforms share risk:** When a SaaS provider stores multiple clients on shared infrastructure, a vulnerability affecting one client potentially exposes all clients
- **Cloud sovereignty concerns:** Some families have specific requirements about where data is stored and which legal jurisdiction governs it — concerns that generic public cloud deployments may not address
- **Internal permission granularity is insufficient in most systems:** Family members, wealth advisors, external auditors, and operations staff need different levels of access. Most platforms cannot enforce field-level or client-level access controls

Ginkgo Solution

- **Physical data isolation:** Each family's data is stored in a fully isolated environment — no shared storage, no shared compute for sensitive operations. A security incident affecting one client cannot expose another client's data
 - **Identity-position decoupled architecture:** Position records store only encrypted IDs. A single record in isolation cannot be traced back to any specific family. The mapping between position IDs and identity information exists only transiently at query time — it is never persisted
 - **Layered encryption:** Sensitive information is encrypted at rest with randomly generated keys, managed via AWS KMS. Data in transit is encrypted using bank-grade TLS
 - **Granular RBAC permissions:** Feature modules and individual client datasets can be independently permissioned. Supports full separation between the procuring party and the using party — "who pays" and "who can view" are completely decoupled
 - **Multi-factor authentication (MFA):** Supports TOTP (e.g., Google Authenticator), SMS, and Email-based second factors. Sensitive modules can require MFA independently of general login
 - **PDF sensitive data masking:** During AI-based bank statement processing, PdfMaskAbility automatically masks sensitive fields before the document enters the analysis pipeline. The original unmasked content is never exposed to the processing layer
 - **Singapore legal domicile:** Ginkgo is incorporated in Singapore. Data is stored in AWS Singapore data centers, governed by Singapore's Personal Data Protection Act (PDPA) — not subject to extraterritorial regulatory intervention from other jurisdictions
 - **Private deployment option:** The full platform can be deployed within the client's own cloud account (e.g., private AWS environment), so data never leaves the client's own infrastructure
-

Supported Asset Classes — Complete Reference

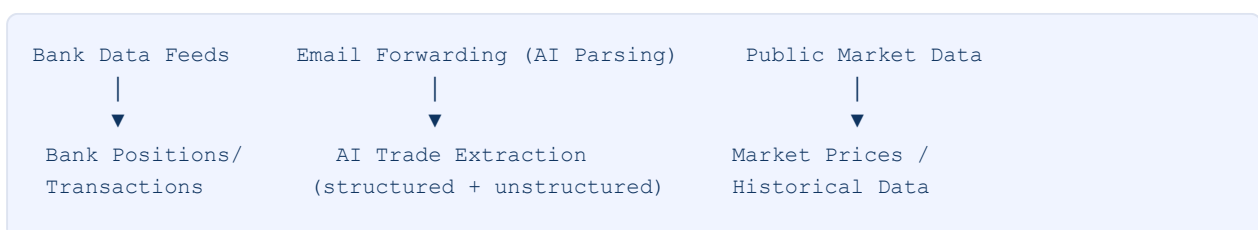
Category	Asset Types	Notes
Cash & Monetary	Cash, Money Market Fund (MMF), Fixed Deposit, NCD	Multi-currency, real-time FX
Fixed Income	Corporate Bond, Government Bond, Loan	8 coupon frequency types; automated coupon calculation
Equities	Equities, ETF, REITs	Global markets (A-share, HK, US, etc.); 50+ dividend types
Structured Products	FCN, ELN, RCN, DRAN, Snowball	Full event engine; 5 observation event types
Derivatives	Option (European/American Call/Put), Warrant (AQ/DQ)	Exercise prediction and expiration prediction
Alternatives	Fund, PE/VC	Tranche management, Capital Call scheduling, quantitative backtesting
Other	Other	Art, collectibles, and custom asset types

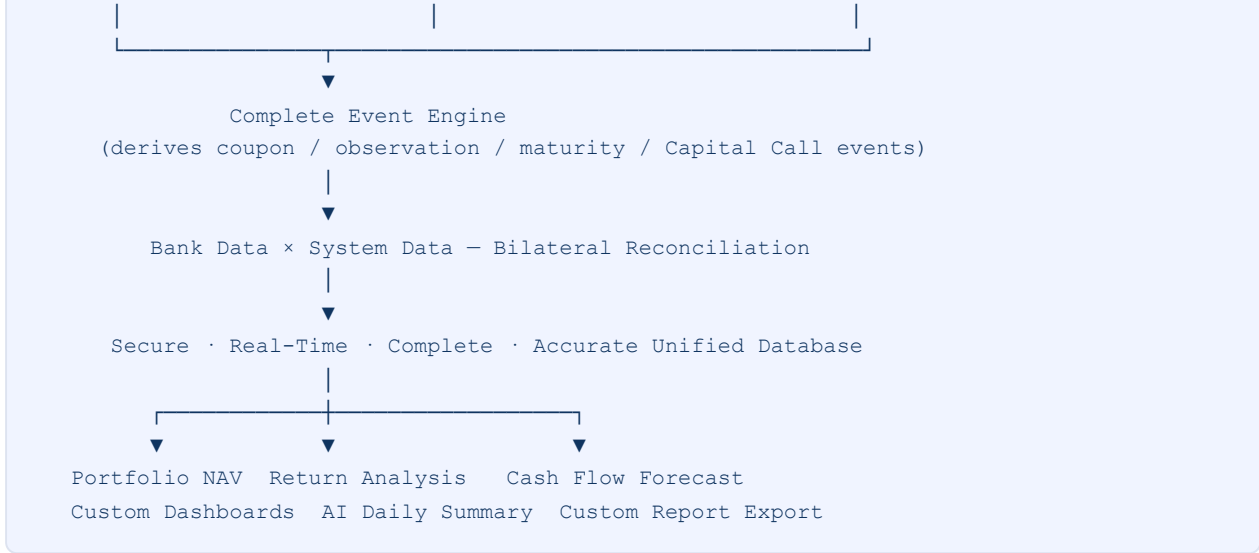
Ginkgo vs. The Alternatives — Full Comparison

Dimension	Legacy / International Systems	Ginkgo
Pricing	Setup fee + AUM-based annual fee, typically USD 100K–300K+/year	Fixed annual fee, no AUM surcharge
Structured products	Cannot process; manual Excel tracking required	Full event engine: FCN, ELN, RCN, DRAN, Snowball — all covered
Physical Redemption monitoring	Not supported	Real-time Knock-in monitoring with automatic Physical Redemption alerts
Data latency	T+1 to T+4, dependent on bank push	Real-time, independent of bank latency; outages don't affect data availability
Data completeness	Bank feeds are the source of truth; disconnection = data loss	Proprietary data layer; feeds used only for bilateral validation
Data maintenance	Client self-uploads, or separately priced managed service	Fully managed at no extra cost — just forward the email
Custom reporting	Not supported, or slow and expensive to commission	Fast custom report development, deployed directly to client dashboards
Chinese language	Not supported	Full Chinese interface
Multi-currency	Partially supported	Fully supported with automatic conversion
Service response time	Slow (international vendors, week-long cycles)	Fast, APAC time zone same-day response
Private deployment	Not typically available	Supported — full deployment in client's own cloud environment
Options and warrants	Basic or not supported	Full support: European/American, exercise and expiration prediction
IRR attribution	Not supported, or requires manual Excel export	Sub-second IRR with full decomposition: dividends / capital gain / currency — each source broken out
Cash flow forecasting	Simple maturity reminders	10-year full-portfolio forecast including Capital Calls

Technical Architecture

Data Processing Pipeline





Data Ingestion — Two Complementary Pathways

Ginkgo supports two data ingestion methods that together cover virtually any financial institution:

Pathway 1: Direct Data Feed Integration (Automated)

Any private bank or broker that offers a Data Feed service can establish an automated data channel with Ginkgo, enabling real-time or near-real-time synchronization of positions and transactions. Current integrations include UBS, Goldman Sachs, J.P. Morgan, Standard Chartered, LGT, Bank of Singapore, Interactive Brokers, Julius Baer, and other leading global custodians — with new integrations added continuously.

Pathway 2: Statement-Based Ingestion (Universal)

For institutions not yet on a direct Data Feed, Ginkgo can process statements in any format — monthly statements, trade confirmations, settlement notices, or other custodian-provided documents. Clients forward the statement email to a designated address; Ginkgo's AI parses and ingests the data automatically. **In practice, if a financial institution can produce a statement, its data can enter Ginkgo** — no need to wait for a formal Data Feed integration.

Note: Ginkgo's proprietary data layer is independent of any single institution's data push. Regardless of ingestion method, trades take effect in real time upon entry. A delay or disruption from one institution does not affect the availability of data from any other account.

Security & Compliance

- **Encryption:** Bank-grade encryption in transit and at rest; keys managed via AWS KMS, randomly generated per client
- **Access control:** Granular RBAC — permissions set independently per module and per client
- **MFA:** TOTP, SMS, and Email-based two-factor authentication
- **Audit log:** Complete operational record for all actions, supporting compliance review
- **Data isolation:** Physical isolation between all client families, no shared storage
- **PDF masking:** Sensitive data automatically masked before AI processing pipeline

Client Outcomes Summary

Dimension	Before Ginkgo	After Ginkgo
Portfolio NAV	Days of manual work monthly	Real-time, always current
Structured product events	Manual Excel, events frequently missed	Automated monitoring, zero missed events
Capital Call preparation	Reactive, often under time pressure	Projected 10 years forward, proactively planned
Data ingestion	Dedicated staff maintaining spreadsheets daily	Email forward — AI handles the rest
Report generation	Manual compilation, days to complete	One-click export from system
Hedge fund research	One analyst, one day, one portfolio	Backtesting complete in 2–3 minutes
Privacy assurance	Data scattered, risk hard to control	Physical isolation, data sovereignty in client's hands

Get in Touch

Request a product demo or learn more:

- Website: www.iginkgo.com
- Email: info@iginkgo.com

This document is intended for family office Owners, CEOs, CIOs, CFOs, and wealth management professionals. Content reflects Ginkgo's actual platform capabilities (2024) and industry data from the Campden Wealth Asia-Pacific Family Office Report (2023).