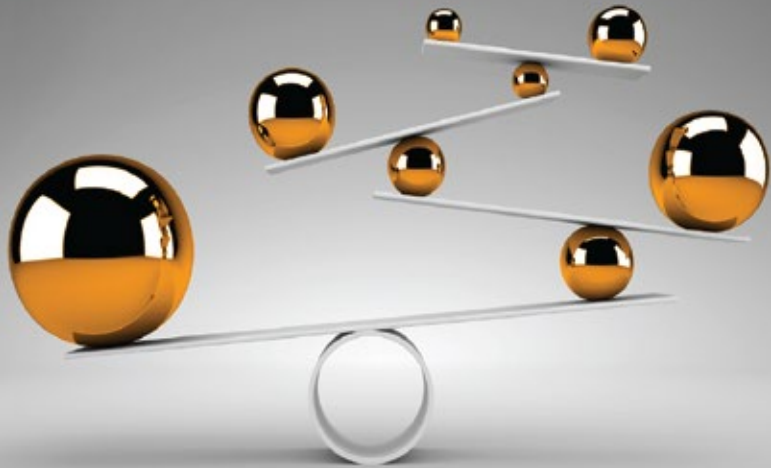




## pControl Outsourced CIO

The pControl Outsourced CIO solution is a complete platform for OCIO and delegated investment services firms. It captures and operationalizes the firm's investment process and supports all stakeholders from the CIO to client portfolio managers, investment operations and compliance.



The Outsourced CIO solution delivers efficiency, precision, safety and control for Outsourced CIOs and Portfolio Management and Investment Operations through an integrated built-for-purpose platform.

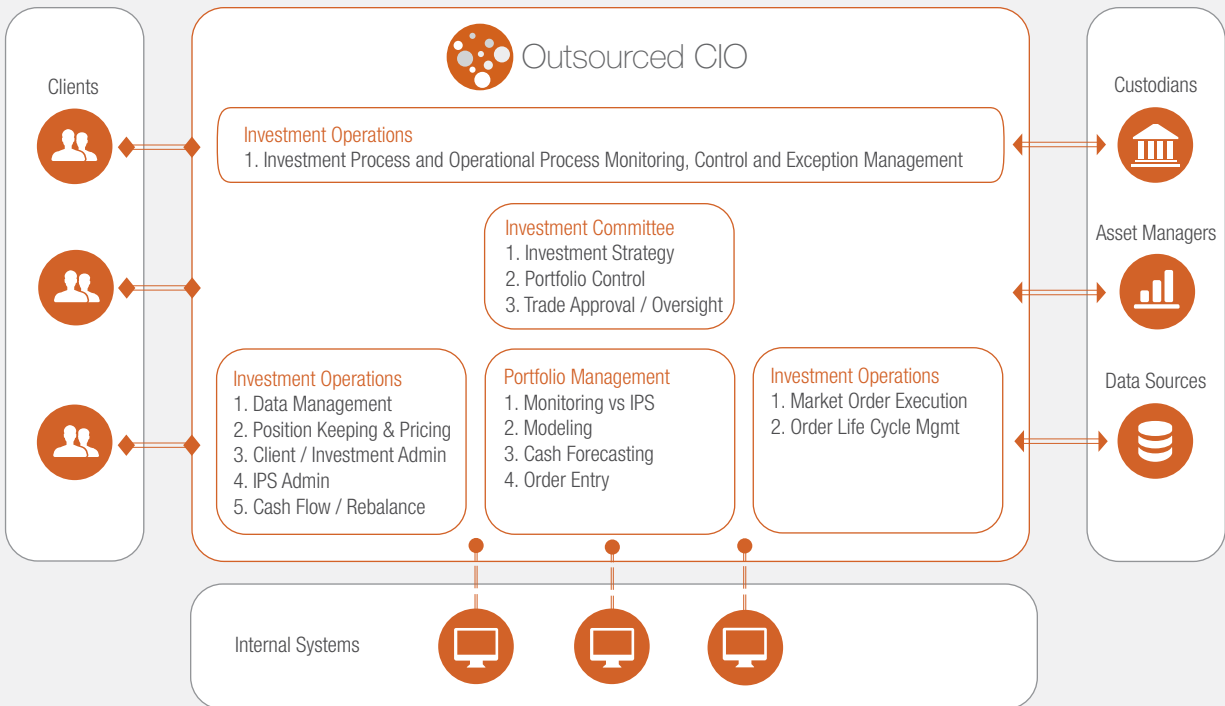
pControl Outsourced CIO solution operationalizes a firm's investment process where increasingly complex classification structures and difficult to administer alternative assets are employed. This strengthens the OCIO's operations, mitigating risks from manual handling, spreadsheets and bootstrapped technologies.

### Operational Benefits

pControl Outsourced CIO is purpose built to bring together the Investment Committee, Client Portfolio Managers and Investment Operations, by delivering the following unique benefits:

- Portfolio Management dashboard provides client portfolio managers a single view display of their accounts or client plans to quickly identify and act where investments are out of tolerance or out of bounds.
- Drill-through of multiple asset allocation views with monitoring, modeling and trading of client accounts and plans, allowing the ability to capture and operationalize the firm's proprietary investment process.
- Complete pre and post-trade compliance provides alerts over:
  - Asset compliance to ensure approved assets are traded within their policy limits
  - Portfolio classification structure compliance to ensure that portfolio constraints are monitored within asset allocation, liquidity and risk policy ranges
  - Transaction compliance to ensure that orders are placed consistent with their trading terms
- Client Portfolio Managers and Investment Operations operate from the same real-time position and transaction record to eliminate spreadsheet versioning errors, improve efficiency and reduce operational risk.
- Multi-stage authorizations to provide safety in fiduciary operations for:
  - Investment decision approval by the Investment Committee or client for proposed allocation modeling
  - Order placement approval by Investment Operations
- Order placement, acknowledgement, confirmation and settlement for all pooled product asset types including mutual funds, commingled funds, hedge funds, private equity and separately managed accounts, including security reference data controls over trading/liquidity terms and settlement instructions.
- Integrated position keeping and valuation of actual and pending units, cash forecasting of forward dated settlements, with built-in custody reconciliations to reduce manual handling and increase scalability of Investment Operations.
- Reduced technology and business operational staffing requirements through fully hosted technology using secure environments, with managed operational service to monitor business processing and data arrival.

A single integrated solution that extends across Portfolio Management, Investment Operations, and the Investment Committee.



## Outsourced CIO Features

-  'At-a-glance' portfolio monitoring against policy: In Tolerance, Out of Tolerance or Out of bounds
-  'Ideal order' calculation for rebalancing or allocation of new cash flows based upon target weights
-  Order modeling and entry within trading/liquidity terms, e.g. notification periods, trading calendars/next available trading date, holdback periods
-  Multiple classification structures to represent asset allocation, liquidity and risk views, including adjustments for multiple weight calculations, range checks, portfolio exposure reallocation, and classification rules
-  Pre-trade compliance checks with soft and hard warnings when modeling and authorizing investment decisions and transaction approvals
-  Multiple levels of authorization for order entry and approval
-  Integrated cash forecasting including opening balance adjustments, with drill through by category such as account, counterparty and transaction status (i.e. pending, confirmed, failed, etc.)
-  Management and monitoring of orders throughout the full transaction life-cycle, including placement, acknowledgement, confirmation, settlement, cancellation and amendments
-  Flexible configuration for counterparty communications for instruction and notifications - including SWIFT, EMX/FIX, XML, PDF/FAX and CSV files
-  Over 150 built-in transaction validations across cash, units, calendars, trade cut-offs as well as for complex transactions such as holdbacks, lockups and corporate actions
-  Built-in reference/static data controls around clients, accounts, assets, depositories, counterparties and bank accounts
-  Integrated 'pooled product IBOR' valuation support including price source hierarchy selection, proxy pricing and auto-reconciliation with custodian provided valuations
-  End-to-end platform/process monitoring with exception management
-  Integrated data management including communications with internal platforms and external counterparties and data sources