STATE STREET.

STATE STREET ALPHA

Data Service

Delivering Mission-Critical Data Across the Enterprise



Alpha Data Service (ADS) provides investment and wealth managers, asset allocators and insurers with an outsourced data management solution that includes data aggregation, validation, mastering and governance.

State Street Alpha[™] is an end-to-end asset servicing solution bridging the front, middle and back office. Alpha Data Platform (ADP) and Alpha Data Service (ADS) provide the foundation, enabling clients to more effectively leverage both internally generated and externally sourced data.

With ADS, State Street manages reference, pricing, benchmark and ESG data from any service provider or data vendor, to facilitate a holistic and integrated view of each client's holdings, cash, security master, performance and risk data. ADP is a cloud-native enterprise data platform, seamlessly integrated with ADS, that empowers clients with immediate access to the data they need to support their investment process, while radically simplifying data management operations.

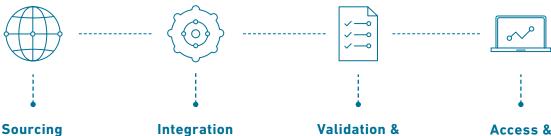
ADP provides an investment management data model covering public and private market front, middle and back-office data. Enterprise data mastering and gold copy creation incorporates AI/ ML for detecting data anomalies. Data warehousing leveraging the Snowflake Data Cloud provides highly scalable as-of/as-at capabilities. Process orchestration and governance enable event-based automation and data visibility. The State Street Alpha portal provides a persona-driven user interface and self-service business intelligence tools. Flexible information delivery options include Snowflake data share, Parque extracts and an API framework. ADP supports integration of third-party solutions, business applications and data and 24/7 outsourced data services provided by our global team helps clients with sourcing, mastering, validating, enriching and delivering their data.

Potential Benefits:

- Flexible data sourcing and delivery tailored to your product and asset mix
- Extensive data validation and governance helps ensure consistent, high-quality data
- Consolidate support and pricing with a single vendor

Real-time and historic pricing Supporting the investment process with fit-for-purpose data Security Reference Data Security Reference Data ESG metrics and Carbon Scores

Outsourced Data Management and Delivery



- Enrich and blend data to help ensure completeness
- · Research and onboard new data sources
- Manage data handoffs across

business units

specialist

 Maintain and upgrade APIs to ensure high performance and availability

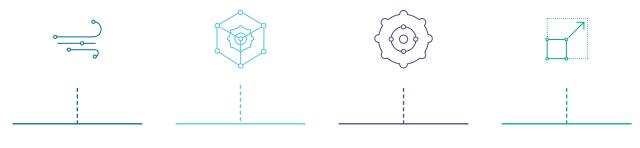
Validation & Reconciliation

- Implement client specific operational requirements
- Perform core and custom data quality checks
- Research and resolve issues across all sources and vendors

Access & Delivery

- Manage data flows, delivering core and customized extracts and direct access to data
- Onboard new data marts and file formats

Alpha Data Service Value Drivers



Flexibility

Tailored service to suit investment managers and asset allocators' evolving needs that can either supplement existing operating models or provide fully outsourced enterprise data operations

Extensibility

Streamlined onboarding of State Street, Charles River, thirdparty and internal data sources to ensure a centralized, accurate and transparent investment data set

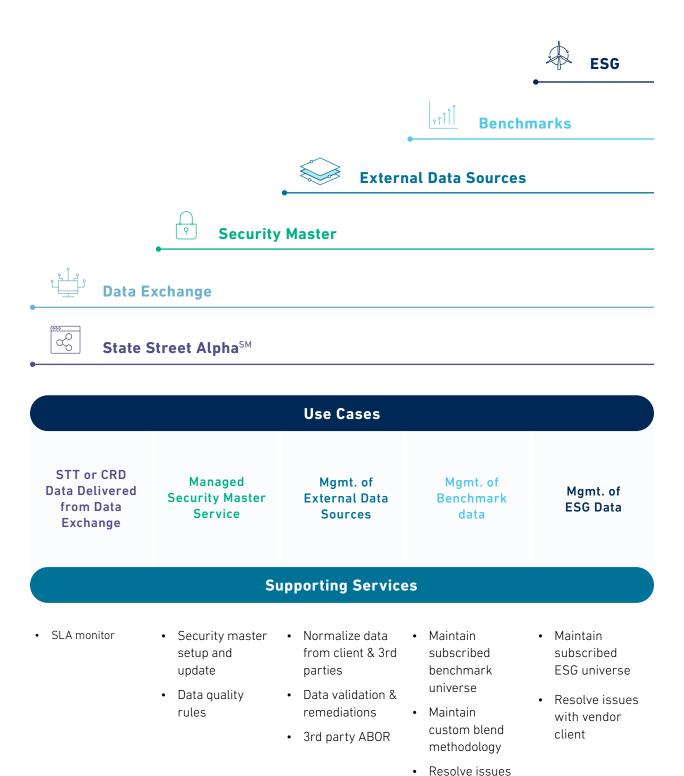
Efficiency

Frees up client staff to focus on adding value through timelier risk and investment decisions rather than managing and reconciling data

Scalability

Cloud-based data service facilitates business growth with out increasing internal headcount, resulting in faster time to market for new products. business lines and geographies.

State Street AlphaSM Data Services Continuum



with vendor/client

Alpha DataSM Domains and Representative Services

Alpha Data Service provides comprehensive coverage across multiple data domains, to support the needs of investment professionals across the front, middle and back office.

Security Master	 Maintenance and cross references to source system identifiers and duplicate detection Validating, scrubbing, compositing, enriching security master and related data Manage validation checks in file pre-processors as well as front-end tools Implementation of required regulatory-driven, and vendor file changes New security setup Maintain held and previously held security universe, as well as held-in-benchmarks and assets of interest Maintain universe of non-listed/OTC securities Update securities with corporate actions impacting security master data
Index and Benchmark Data	 Maintain over 14,000 indexes across 30+ sources Manage custom benchmarks in accordance with client requirements Support index and benchmark data on 3rd party analytics systems Perform new index installs and modifications to existing indices
Front Office Analytics	 Consume analytics from external vendors and systems and manage data quality Load custom analytics sourced from client Instrument set-up for user defined instruments Feed securities of interest to analytics vendors Aggregation of analytics at entity level including funds and sleeves Load external risk and performance analytics at the fund level Work with vendors to resolve incomplete files or out of tolerance data Validate data quality and apply corrective lists
Securities Pricing	 Supply instrument level pricing for downstream accounting platforms Support price comparisons across various sources, including benchmarks Maintain daily historical pricing database
ESG Data	 Onboard ESG data and carbon scores from preferred vendors Combine multi-source data to enhance geographic and sector coverage Create and maintain time series to support trend analysis

Alpha DataSM Domains and Representative Services

Integration and aggregation of data across multiple sources **Security Ratings &** • Perform extensive data quality checks on ratings data Classifications Support and document overrides for custom classifications and ratings • Integration of Bloomberg Back Office Credit Risk file, inclusive of capital structure, corporate structure, and issuer level ratings Perform manual issuer setups not provided by Bloomberg • Execute validation checks to confirm file integrity and reconciliation Issuer and Issuer are in scope Credit Risk Provide standardization of reference code values across platforms Normalize and enrich data to identify issuers, and identify relationships between LEI, issuer, and various other levels of the issuer hierarchy, down to the instrument level • Consume and aggregate fund files from external systems Maintain an entity cross reference facility with alias identifiers **Fund and Account** Attributes • Perform data quality checks Validate that fund/benchmark relationship is established Integrate front, middle and back office data sources including external managers Perform standard validation checks to confirm file integrity **Holdings** • Enrich core accounting data with standardized reference data • Aggregate data from multiple source systems by data category Perform client-directed transformations and calculations

Trades and Transactions

Consume agreed upon trade data from Charles River IMS® and other

front office platforms and make available for downstream consumption

For more information, contact:

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