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IBM Algo Managed Data Analytics Service

A managed service for risk management, analytics, reporting and portfolio construction

Highlights

- Secure cloud-based platform with high scalability and performance
- Broad range of advanced risk and portfolio analytics
- Integrated risk framework on-demand capabilities
- Bundled risk service with wide range of asset classes and market data
- Extensive investment strategies, simulation models and valuation methods
- Flexibility with multiple approach options for solution deployment
- Customizable to specific business requirements

Financial institutions today face rising complexity. They need to achieve regulatory compliance, counter threats and accurately balance risks – all cost-effectively. And they must make precise decisions that deliver on business goals.

Advanced risk analytics, configured to your requirements with data packaged in a single solution on cloud

IBM Algo Managed Data Analytics Service (MDAS) is a cloud-based risk management, analytics, reporting and portfolio construction service designed for financial institutions covering both buy-side and sell-side organizations. Algo MDAS delivers cloud deployment of IBM Watson Financial Risk solutions and provisioning of comprehensive, validated and enriched market data in simulation-ready format.

Algo MDAS offers end-to-end managed data services and access to sophisticated risk management, analytics and investment decision support tools. The flexible cost structure of Algo MDAS is built upon a pay-per-simulation model in which total costs of ownership is reduced.

With its integrated risk framework including a broad coverage of asset classes and access to extensive range of financial models, Algo MDAS provides features of an on-premise financial risk solution with bundled data on a cloud platform. Algo MDAS combines the benefits of turn-key risk services with flexibility of solution customization and increased operational robustness while preserving advanced analytical capabilities.

Cloud advantage: highly scalable, secure platform delivers performance and value

Through the advantages of cloud models, Algo MDAS provides a highly scalable, flexible and secure platform with increased performance as well as more value delivered at lower costs.

Scalability, interoperability and speed

- Address complex risk challenges through advanced analytics combined with high quality data on a robust cloud platform with large data storage capacity.

- Leverage API driven microservices to accelerate speed in analysis, processing and reporting.

Lower total cost of ownership

- With the customizable solution options and consumption-based pricing model provided by Algo MDAS, costs of maintenance and management can be reduced significantly.

- Enjoy rapid portability of data and applications without the need to identify, procure, deploy and manage the underlying physical compute, storage, network infrastructure and software licenses of a full on-premise deployment.

Enhanced security and data protection

- Experience a security-rich environment and cloud platform, encrypted data transfers as well as the confidence in overall IBM service and support.

- Rigorous service level agreements complement the high enterprise-grade security of the platform covering performance metrics including rapid response times, reliable uptime commitments, transparent problem elevation procedures and resolution paths.

As part of the service, Algo MDAS clients will have a single point of contact to facilitate knowledge transfer and provide ongoing support. Security and permissions for portfolios, benchmarks and pricing data can be configured at an individual user level.

On-demand capabilities with quick responsiveness to market and portfolio shifts

Algo MDAS offers speed in valuation, simulation and reporting of various sizes at any frequency with quick responsiveness to markets and portfolio changes.

Flexible portfolio and risk diagnostics

- Obtain greater accuracy in pricing financial instruments with a full valuation approach over different time horizons, while taking into consideration various market conditions and business cycles which may impact portfolio performance.

- Instrument level data availability allows for agility and flexibility to decompose portfolios according to any specified hierarchy, assess risk measures and aggregate positions from multiple portfolios across a variety of user-defined criteria.

- Run advanced risk diagnostics, with the capability to determine risk attributions at the portfolio, risk factor group, individual factor level or at any preferred dimension for further drill-down in developing insights on drivers of portfolio risk and return.

Integrated risk framework

- Efficiently extract risk results via a robust API as-is, or merge with data from other sources to create proprietary reports. Data sources can range from internal repositories, external vendors, benchmark providers and custodians to prime brokers.

- Set and monitor exposures against risk limits, analyze risk measures, display performance and coverage heatmaps as well as conduct benchmark comparisons, stress testing and portfolio optimization. Create what-if simulations spanning any dimension with embedded risk analytics in the investment workflow.

Workflow simplicity

- Streamline the overall risk analysis process with intuitive aggregation and reporting. Update user-defined criteria with immediate regeneration of reports and analysis through an integrated workflow.

- Select predetermined reports or create custom reports. Options for generating reports on an ad-hoc, batch or scheduled basis are also available.

Designed for ease of use, the Algo MDAS interface allows users to create report templates by choosing screen layouts, risk data elements and format of reports by selecting portfolios, benchmarks, time steps and scenarios for analysis.

Broad range of analytics in multiple asset classes, markets and risk perspectives

Algo MDAS offers a wide coverage in multiple asset classes, analytical models and risk perspectives from integrated data across a broad range of instruments, risk factors and investment strategies.

Extensive coverage in asset classes, investment strategies and market data

- Access more than 20 geographies and 400 financial products across fixed income, equity, foreign exchange, credit, commodity and derivatives markets. A wide range of market data such as scenarios, risk factors, terms and conditions of exchange-traded instruments are included as part of the solution subscription.

• Conduct analysis based on a wide range of portfolio analytics, risk measures, valuation measures and optimization techniques on absolute and relative basis.

Comprehensive risk analytics

• Run advanced risk analytics at an accelerated rate with large amounts of data from various sources synthesized in real-time, when combined with IBM Cloud capabilities. Multiple analytical functions including duration, yield and exposure calculations at the instrument, portfolio, benchmark or risk factor group level are also featured.

• Analyze a comprehensive set of simulation-based risk measures such as VaR, tracking error and scenario-based P&L estimates following specific curve shifts, stress tests and market index shocks.

Scenario construction methodologies and stress testing capabilities

• Comprehensive scenario construction methodologies together with the analytical features of the solution, covering deterministic shocks, historical replays, hypothetical and conditional scenarios are available.

• Stress testing and scenario modelling are enabled through the integration of underlying simulation engines and a library of risk factors relevant to the instrument universe and risk exposures across time.

In addition, a wide range of market data such as scenarios, risk factors, terms and conditions of exchange-traded instruments are included in the service subscription, enhancing the solution's extensibility.

Client driven, configurable and customizable

With configurable solutions tailored to user needs and dedicated support for customized scenarios, simulation models, reporting, data analytics and processing, Algo MDAS maintains client focus as a priority.

Consistent view of risk across the business

• Diverse requirements of a wide range of users including portfolio managers, business risk managers, traders, risk analysts and quantitative analysts are supported with the holistic capabilities of an integrated and connected risk framework by Algo MDAS.

Multiple deployment options

- Tailor a mix of private cloud, public cloud and on-premise solution components to meet specific business requirements with a flexible hybrid deployment approach.

- For example, cloud capabilities can be used to perform individual asset valuations while keeping portfolio analysis and risk calculations with proprietary information on-premise.

Customize the service to suit specific requirements

- The pre-packaged solution option offers a standard configuration for models, scenarios, market data, analytic measures, aggregation keys, reports and time steps.

- With the customizable solution option, the full flexibility to configure analytical measures, valuation models and reporting features will enable your firm to meet its unique risk and business requirements.

The solution allows for augmentation of packaged data with data from other sources and enables extensions with third-party models to be included. Further enhancements include a range of extensions such as sandbox, optimization and portfolio credit as well as additional factor models.

Integrated data with transparency and seamless connectivity

The Algo MDAS cloud solution provides transparent results as well as data driven insights based upon an integrated risk framework while enabling on-demand analysis.

Transparency

- Full traceability regarding the source, quality and evolution of both risk factor data as well as terms and conditions data is made possible with the solution.

- The option of implementing a desktop application integrated with a sandbox environment allows greater visibility and control of models, analytics, calibrations and scenarios in understanding the derivation of multi-asset class valuations and risk measure calculations.

Dynamic interface

- On-demand analytics support timely and risk-informed investment decisions.

- Users can evaluate the impact of different portfolio composition choices while assessing portfolio performance through simulated conditions as part of scenario analyses. Multiple reports and data sets can be analyzed and compared concurrently.

Connectivity

- Users have an end-to-end view of portfolio risks through wide connectivity across data, risk analytical models and platform features.

- The Algo MDAS dynamic and interactive interface allows seamless distribution of risk reports throughout the organization. From portfolio managers to risk managers, users across the enterprise can utilize the system to meet their unique analytical needs.

The solution, underpinned by a holistic risk framework, provides greater extensibility through an enhanced view of risk including the ability to drill down from top-of-house to trade level details efficiently, all of which is performed within a single dynamic interface.

Why IBM?

Algo Managed Data Analytics Service software delivers data-driven insights which help organizations identify and visualize trends and patterns in areas such as customer analytics. By leveraging this comprehensive portfolio of business intelligence, predictive analytics, and decision, performance and risk management, institutions can compare scenarios and anticipate potential threats and opportunities. They can more effectively plan, budget and forecast resources. By making analytics widely available, risks are balanced against expected returns and regulatory requirements are met while tactical and strategic decision making are better aligned to help achieve business goals.

About Watson Financial Services

IBM works with organizations across the financial services industry to use IBM Cloud, cognitive, big data, RegTech and blockchain technology to address their business challenges. IBM Watson Financial Services merges the cognitive capabilities of Watson and the expertise of Promontory Financial Group to help risk and compliance professionals make better informed decisions to manage risk and compliance processes. These processes range from regulatory change management to specific compliance processes, such as anti-money laundering, know your customer, conduct surveillance and stress testing.

For more information

To learn more about IBM financial risk and regulatory compliance solutions, visit ibm.com/RegTech, follow us on Twitter @IBMFintech or contact your IBM sales representative.