

A UNIFIED PLATFORM



**spark**

**FRONT - MIDDLE - BACK**  
managing your entire investment process



[athenasystems.com](http://athenasystems.com)

# PLATFORM SCOPE

## Portfolio & Risk Management



P&L, Risk, Rebalance, etc.

## Trading



Electronic Trading, Algorithms, Simple/Complex Allocation, etc.

## Technology and Infrastructure



Hosting, Disaster Recovery, Market Data, etc.

## Operations and Accounting



Accounting, Accruals, PB/Admin Recon, Cash/Margin Management, Performance Analysis.

## Compliance and Controls



Pre/Post Trade Regulatory Compliance, Filing Alerts, UCITS, 40 Act, FSA, etc.

## Investor Features



Investor Accounting Share Class Management, Guideline Surveillance, Custom Investor-Ready Reports.

Additional detailed documentation available on many of the above topics

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# PORTFOLIO & RISK

## Portfolio Management

- Real-time positions, prices, and analytics.
- Calculated market values, exposures, and other derived values (based on market prices).
- Reconciled quantities vs. prime brokers, administrators, or custodians.
- Interactive pivoting/subtotaling at summary, detail, and lot level holdings.
- Gross, net, and Greek adjusted weights.
- Supports user calculations to enable proprietary valuation and risk models.
- Include local data in views (from spreadsheets, files, or databases) with just a few clicks.
- Build and save custom views in minutes.
- View onscreen, web, and PDFs.

## Risk

- Scenario analysis/stress testing with shifting of the underlying benchmark/index, volatility, or currency.
- An extensive set of liquidity risk measurements and alerts.
- Value-at-Risk (VaR) calculations with support for several different models including user-tunable Monte Carlo and historical.
- User-tunable Cox-Ross-Rubenstein options pricing model.
- Fund and firm level capitalization/margin stress testing.
- Historical/time-series.
- Flexible alerts engine can be configured to, depending on the severity, simply show warnings on-screen, highlight problems in an end of day report, or send a priority email to the investment committee or investors.

## Order Generation

- Quickly generate orders by target quantity or target weight.
- Rebalance accounts to themselves or to a benchmark/model.
- Gross-up/down of the portfolio or a specified segment
- Comprehensive pre-trade compliance.
- What-If Analysis to decide the impact of proposed trades on exposures, compliance, and risk.

## Performance

- Performance attribution/contribution analysis by any standard "cut" of the portfolio (security type, country, industry, etc.), or by any method of internal tracking (strategy, sub- strategy, analyst, trade idea, etc.).
- Decomposition of returns by realized, unrealized, security, FX, dividend, interest, internal/external expenses, etc.
- Support for one or more public or custom blended benchmarks for performance attribution and comparisons.
- Tick-by-Tick fully loaded P&L.
- Full portfolio history is maintained for historical analysis or comparisons.

# TRADING & ORDER MANAGEMENT

## Electronic Trading

- Athena provides FIX based electronic trading with over a thousand Brokers, DMAs, ECNs, ATSSs, and STP networks.
- No per-transaction or cross-connect fees.
- Athena connects to all Execution Management Systems.
- Electronic trade files to custodians, prime brokers, ISDA counterparties, administrators, and banks.

## Allocations, Compliance, Commissions & Filings

- Flexible and powerful allocations quickly allocate trades across several or thousands of accounts.
- Automatic short-locate and borrow.
- Pre-trade compliance.
- Commission tracking. Soft dollar budgeting.
- Global ownership filing alerts (long and short) and takeover panels.
- Equities, options, futures, fixed income, FX, swaps, structured.

# COMPLIANCE AND SURVEILLANCE

## Libraries

- Pre/post trade compliance.
- UCITS, 40 Act, FSA, MiFIDII, etc.
- Risk (VaR, scenario and liquidity).
- Performance analysis.
- Global ownership filing alerts.
- Web and mobile reports.

## Real-Time

- Athena Alerts are recalculated and reevaluated every time the market ticks. Users do not need to wait for a trade to be entered to know if they are in compliance.

## Alerts/Reporting

- Depending on the severity of the alert, users can be notified on their screens, via email, or on their mobiles.
- Alerts can be built upon user calculations to enable surveillance of proprietary valuation and risk models.
- Equities, options, futures, fixed income, FX, swaps, structured, true multi-currency.

# ACCOUNTING

## General Ledger for Fund Accounting

- Balance sheet/statement of financial position.
- Trial balance.
- Income statement.
- Statement of cash flows.
- Profit & Loss.
- Income, expenses and fees.
- Receivable/payables.
- Subscriptions and redemptions.
- Accruals and amortizations.
- Real-Time NAV calculation.
- Daily NAV within minutes of the close.
- Tax Lot management: With a host of tax lot reporting as well as custom tax lot disposition, you will be in full control of managing how you track and liquidate tax lots. Our tax lot report includes days to long.
- Equities, options, futures, fixed income, FX, swaps, structured.

## Budgets and Forecasting

- Real-Time OCC margin prediction (TIMS).
- Excess margin prediction.
- Cash reporting: Render cash reports and statements on a current and n+ day projection from expected inflows and outflows.

## Investor Accounting

- Subscription and redemption management.
- High water mark performance fee calculation.
- Share Class Management supports multiple levels of fund share classes and fees at both the entry as well as the subscription and redemption levels.
- Produce end of day/month reports specifically tuned for your investors.

## Data Management

- Automated reconciliation break reports.
- Data integrity reports.
- Seamless electronic interfaces to custodians, prime brokers, ISDA counterparties, administrators, and banks.

# OPERATIONS

## Included Data

- Security master provided for most global listed securities (no more security setup!).
- Data and automation for corporate actions processing.

## Special Asset Processing

- Automated exercises, assignment, and expirations.
- NDF fixing.
- Equities, Options, Futures, Fixed Income, FX, Swaps, Structured.

## Automation

- End of day electronic trade files to custodians, prime brokers, ISDA counterparties, administrators, and banks.
- Automated reconciliation of positions, cash, and transactions.
- Comprehensive data integrity reports.

# TECHNOLOGY

## Hosting

- Hosting primary and disaster recovery in our five certified global data centers.
- World class disaster recovery and business continuity protocols.
- Top Tier cyber security protection.

## Athena Content can be accessed from

- Our Spark desktop client.
- Web reports.
- Excel Add-In.
- APIs.
- SQL.

## Real-Time market data feed handlers for

- Bloomberg.
- Factset.
- Reuters.
- Neovest.
- Any "RDP" feed.

## Automated file exchange already running and certified for

- Most prime brokers.
- Most administrators.
- Most custodians.

## Matching your workflow is always our primary consideration

- Athena Systems is always willing to adapt our platform to meet the specific needs of your team.

# ASSET CLASSES

## Equity

- Listed equities.
- Private equities.
- Warrants/rights.
- Listed and OTC equity options.
- CFDs/equity swaps/P-Notes.
- ADR/GDRs.

## FX

- Spot FX.
- FX Forwards (deliverable and NDF).
- FX Options (vanilla and some exotics).

## FI, Cash and Equivalents

- Cash.
- Treasury bills.
- Sovereigns.
- Corporates.
- Municipals.
- Discount notes.
- Commercial paper.
- Bank loans.
- OTC options.
- FRAs.
- IRS.
- CDS.

## Futures

- Financials.
- Metals.
- Energy.
- Agricultural.

## Other

- Structured.
- Spreads.



# FREQUENTLY ASKED QUESTIONS

**Why Athena?** Today's markets are presenting Hedge Funds with formidable challenges. Investors, Regulators, Portfolio Managers, Traders and Operations are all demanding full featured, enterprise class systems that can collect and synthesize volumes of data about holdings, trading, performance, and risk into meaningful, concise, actionable views or reports.

Despite their reduced size, Hedge Funds need technology that covers all their operational needs without requiring huge operational costs.

The Athena platform provides the foundation to cover the Hedge Fund community needs front to back, giving a unified picture of their business yet offering unrivalled flexibility to fit each fund's unique style.

**What does Athena Cost?** Our pricing model is tied to a fund's AUM. Starting at USD 40,000 per year for most new launches.

**How long is Implementation and what will it cost me?** Free Implementation for most clients. Expect Implementation to take about 6 weeks.

**How will I be supported?** Depending on your location your primary support will be either out of Boston, Madrid or Ho Chi Minh City. Secondary support, that is before hours or after hours, will be out of the office in the time zone ahead of you or behind you. Athena provides 24 x 5 support including skeletal support on exchange holidays. Our support process is not multilayered. When you call with a problem you will not be shuffled between multiple people that don't understand financial terms, the investment management process or your business specifically. Instead, you will probably speak directly to your account manager, your backup account manager, a product manager, or developer.

**Tell me about Athena's clients?** We have over 60 clients globally. About one third in the Americas, one third in Europe, and one third in Asia. They are mostly flavors of Equity Long/Short, but we also have several long only clients and several macro clients. The investment manager types are primarily hedge funds, but we also boast family offices, institutional managers and broker-dealers as our clients. Most of these clients are on our investment management platform, but a handful of these clients are custom development only.

**Is Athena stable?** Very! We have been in business since 2006, and we have always been profitable (even in 2008). We are employee owned, and consequently have virtually no employee turnover. The average age of the Athena team is 38, and we have a long-term focus, and we are planning on being in business for many years to come.

**What's Athena's 2019 product strategy?** The events of 2008 (Madoff more than Meltdown) caused investors in alternative assets to demand an increased level of sophistication from hedge fund managers.

This began a process of "growing-up" for hedge fund managers, that was punctuated by the forced business continuity plan stress tests of Hurricane Sandy in 2012, and culminated in 2014 with a handful of notable billion-dollar+ funds closing because they were unable or unwilling to adapt.

The funds that made it through these challenges, as well as funds that were launched afterwards had a very different mindset. Funds were now more investor and risk management focused. Funds began to look internally and externally for solutions to the following problems investor and regulatory demands:

- Reporting.
- Transparency.
- Operational Risk Management.

It's Athena's near-term product strategy to help our clients solve these problems through technology. Our product roadmap includes:

- To expand our investor focus report. These reports can be "skinned" to have the look and feel of the investment manager. They currently include investor accounting, compliance, risk, performance, and cash reports. It's our intent to increase the flexibility and sophistication of these reports to fill the increasingly onerous reporting and transparency requirements for our clients.
- To stay ahead of all emerging regulatory requirements including but not limited to:
  - Cyber security requirements.
  - Data security/privacy (a both State and Federal levels).
  - MiFID II.
- We will also continue to make investments in our global data centers. This will include:
  - The opening of a new data center in the Western US.
  - The acquisition of new hardware.
  - The upgrading of existing hardware.
  - New networking equipment for the improvement and continual testing of our backup, disaster recovery, and failover capabilities.