

Millennium PostTrade™

**Clearing, settlement, risk and CSD
solutions for the world's markets**



“Millennium PostTrade™ :
one platform for end-to-
end post trade processing
– in real time.”

Post Trade in real time

The MillenniumIT technology advantage

One platform, many
market structures

Reliable. Scalable. Flexible. Cost effective.

MillenniumIT technology powers many of the world's financial markets. Our advanced, proven ultra-low latency technology has transformed markets and the organisations that participate in them.

Since switching to MillenniumIT technology, London Stock Exchange has gained significant improvements in latency, a 400% increase in order-execution capacity and a notable reduction in cost.

MillenniumIT technology is advanced, rule-based and fault-tolerant. This permits MillenniumIT architecture to **optimally balance** ultra-low latency, flexibility, rich functionality and easy connectivity. With a fast time to market, the system demonstrates high throughput, high reliability and scalability with a low cost of ownership.

MillenniumIT technology can support multiple products in any type of market. As a distributed system, with built-in patent pending software-fault-tolerance technology, it has very high reliability and availability. Overall, to date across all our global implementations, MillenniumIT technology has achieved 99.996% availability.

Crucial to its success is MillenniumIT's patented BID system (Business Innovation Dynamically). This separates business rules from the underlying technology, meaning that a customer's solution can be uniquely configured, without changing the product code. This makes for faster solution implementation and makes changes easier and cheaper.

MillenniumIT technology is used to power trading, surveillance, market data services, order gateway and smart routing across the globe. Now, MillenniumIT has applied this technology to create innovative post trade capabilities, in real time.

“Real-time post trade
processing with ultra-
low latency.”

Millennium PostTrade™

Capitalising on the MillenniumIT technology advantage

**A single platform
for all asset classes
– trade more with
less collateral**

High availability. Flexible. Unprecedented scalability. Lower cost.

Millennium PostTrade™ features high availability, real-time (or batch based) clearing, risk management, settlement and depository services, with no single point of failure.

Using the inherent flexibility built-in to Millennium technology, Millennium PostTrade™ can be configured to handle various market structures: those based on CCP or non-CCP models, all three BIS settlement models, varying settlement cycles and OTC/Exchange-based trade matching, enrichment, affirmation, risk management, clearing and settlement. The platform comes with advanced collateral services and securities lending services. Millennium's highly configurable interfacing and message management service makes it possible for Millennium PostTrade™ to integrate with virtually any third-party system or institution.

Millennium PostTrade™ can seamlessly scale up to meet future needs. It can provide a start-up market with basic post-trade functionality, with minimal, off-the-shelf hardware and systems software. Growth can be accommodated easily, affordably and incrementally by adding new servers. New features can be added without costly hardware and application upgrades.

Millennium PostTrade™ reduces operational cost, through fully automated daily cycle and automated operations and monitoring tools.

**“Settlement model
flexibility – gross
or net, real-time
or batch.”**

Post Trade in real time

Enable substantial cost savings

Pre-trade risk management

Matrix based portfolio-risk, value-at-risk or discounted-cash-flow-based margining in real time

Preventing failure is better than detecting it. The Millennium PostTrade™ risk engine can be configured to compute exposure at the time of every position update. This real-time risk profile, coupled with a trading system, provides pre-trade risk management based on portfolio-risk or value-at-risk based quantification techniques.

Real-time cash and securities requirements forecasting allows participants to view and act on possible shortfalls well ahead of the settlement date.

New revenue opportunities

Lower settlement failure rates and enhanced revenue on passive portfolio's with stock lending and borrowing

Live, real-time information can create new revenue opportunities. Millennium PostTrade™'s real-time information can be made available to customers through browsers, electronically readable interfaces and mobile devices. Flexible, role-based permissions make it easy to define multi-tiered subscription schemes.

Reduced cost with true straight through processing

One platform for end-to-end post trade processing

MillenniumIT's dedicated message management system, fully integrates Millennium PostTrade™ with any institution or system. This enables cost effective, straight through processing (STP) whilst improving operational efficiency and minimizing input errors.

Millennium PostTrade™

Functionality uniquely tailored to your needs

Millennium PostTrade™ is uniquely flexible, capable of meeting your post trade needs.

Millennium PostTrade™ comprises a suite of fully compatible functional modules, all built on the Millennium technology platform. We simply assemble the necessary modules and configure the solution, with MillenniumIT's patented BID system.

Millennium PostTrade™ functional modules

Enrichment and SSIs
Reconciliation
Risk management
Pre-trade risk analytics
Registry
Settlement processing
Depository
Cash management
Corporate actions
Stock lending and borrowing
Collateral management
IPO and facilities life-cycle
Reporting
KYC/AML services
Billing, fee and taxation

System performance

Fully optimised, continuous settlement

Key technical features

- Distributed, message-based
- Software-based fault tolerance
- User-defined business rules
- Spatial subscription
- Partitioning
- Web based front ends
- Database: Oracle
- Operating System: Linux

Key functional features

Straight through corporate action processing on-stock and on-flow positions

Trade and external data management via STP

- Trade capture, management, affirmation, give-up, splitting, enrichment and routing
- OTC trade reporting, matching and confirmation (three models)
- Receive, compute, normalise and retain external market data price, yield or rate-based.

User, account and position modelling

- User-defined participant structures – beneficial owner, nominee, omnibus, or mixed – and multi-layered account hierarchies
- Configurable position creation keys to model trading, clearing, settlement or margin positions
- Position fungibility including multi-currency conversion.

Settlement and reporting

- Both cash and securities management on the same platform with double entry accounting enabling true DVP settlement
- Net or real-time gross settlement (RTGS)
- Central counterparty and bilateral clearing, efficient netting algorithms, with fully optimised settlement, failure management, securities lending and borrowing, auto collateralising, buying-in and cash closure cycles
- Cash or physical settlement of futures including time-bound, staggered deliveries
- Automatic or manual exercise and assignment of options
- User-configurable reports and fee structures.

Risk management

- Matrix based portfolio-risk, value-at-risk or discounted-cash-flow-based margining
- Real-time or periodic cash and/or accrued marking to market
- Back-testing and stress testing, including normalising and maintenance of historical data
- Currency-based tiering and matching of collateral.

Depository services

- Dematerialisation, pledging, freezing, security transfers, liquidation handling and security safeguarding
- Announcement capture and claims/adjustment processing for voluntary and non-voluntary corporate actions, on both flow (positions and transactions) as well as stock (security balances). Fully compliant with EU standards for corporate action processing.

Key operational features

Seamless, real-time integration with cross border CSDs

- Single user interface to operate and manage the system including end-of-day housekeeping
- Configurable event- and time-based triggers to manage external dependencies
- Connectivity with: market participants, CSD, payment, trading, accounting and other gateways with ISO 15022/20022, FIX or proprietary APIs. XML or CSV file-based transfers
- Browser-based, web-enabled front end for all participants.

“True DVP settlement with cash and securities on one platform.”

Related products

CAPITAL MARKETS

Millennium Exchange™

Ultra-fast, flexible and scalable multi-asset trading platform

Millennium Surveillance™

Real-time, multi-market, multi-asset class monitoring and compliance

Millennium SOR™

Ultra-low latency, flexible and intelligent order routing

Millennium MarketData™

Ultra-fast and efficient data for financial markets

Millennium Gateway™

One interface to many markets

Millennium LiveOps™

High availability IT operations for capital market firms

“Real-time risk management
with ultra-low latency –
stop your algorithm before
it loses millions.”



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