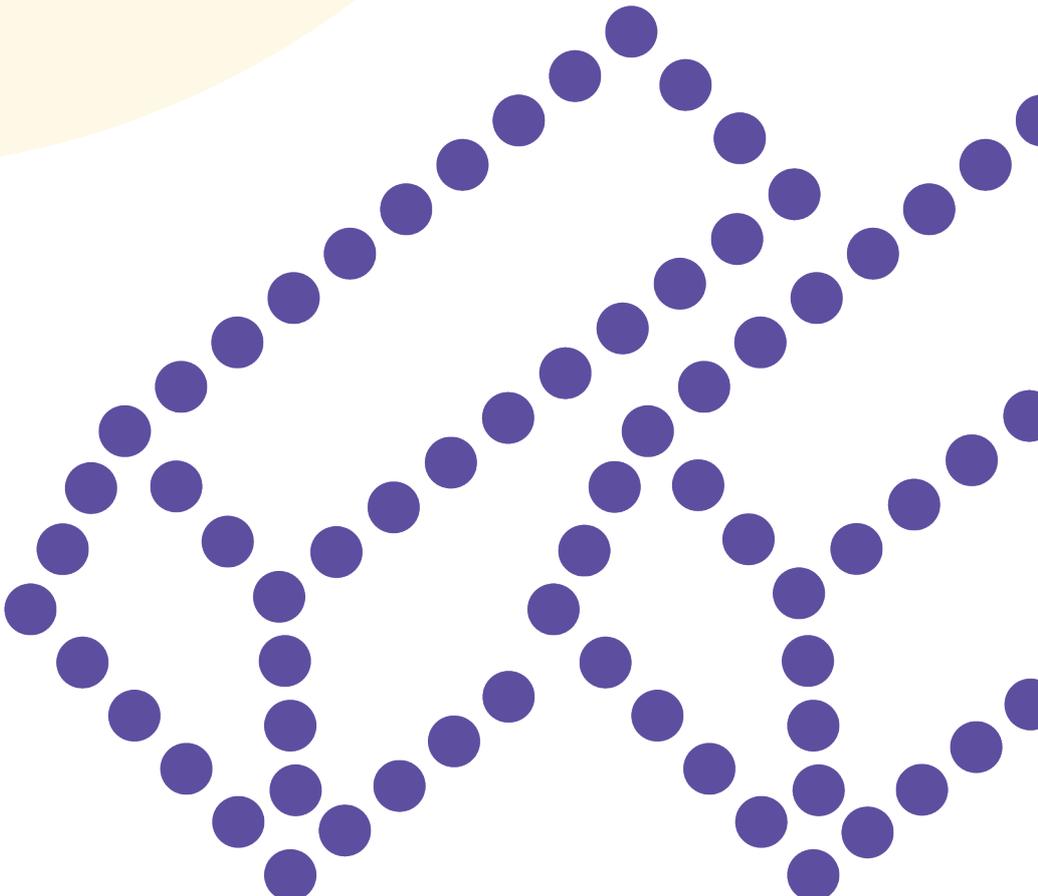# LME Solutions for Clearing Members

Dynamic solutions for a dynamic market
Software designed with the
LME at its core

BRADY.

Brady has been at the forefront of global metals trading and risk management solutions since 1985 and is independently recognised as the world's number one software provider to the metals market. Brady solutions are already used by a customer base of more than 300 companies, including a wide range of banks, brokers, trading houses, fabricators and producers.

Brady and the LME: a Strong Relationship

The individuality of the LME market means that generic trading and risk management systems do not have the required functionality to completely support an LME business. Whether it is the daily prompt structure, physical warrant delivery, OTC averaging, specific regulatory requirements or the interfaces for matching, clearing and warrant delivery – in order to seamlessly manage an LME business, the top organisations in the market need solutions that were specifically designed for the LME.

Increasing trading volumes and the rise of electronic trading have challenged the architecture across many organisations - in order to provide a quality service to their clients and drive their business, LME members require an infrastructure that will fully support their business.

Our LME solutions enable our customers to fully involve themselves in the opportunities that the market provides, offer a high quality service to their clients, optimise their operational efficiency and reduce risk by:

○ Providing data enrichment using multiple automated rule structures covering commission, account allocations, give-ups and date adjustments

○ Automating electronic recaps and confirmations

○ Providing intra-day and end of day margin calculations across LME and OTC products

○ Delivering limit monitoring across accounts or account groups on both OTC and listed derivatives

○ Automating client statement reports, outlining the equity summary, open trades, variation margin, initial margin, collateral and margin requirements

○ Incorporating standardised price feeds and automated MTM and P&L calculations in real time and official end of day

○ Providing detailed P&L attribution to explain any daily moves in P&L

○ Providing further detailed risk analytics – VaR, stress testing, sensitivity analysis to support the risk department

○ Providing standard regulatory reporting for DPRS

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This allows our customers to efficiently scale up their business without having to scale up their operations team.

Features

- Offers seamless flow from order management systems

- Provides capture screens tailored for rapid entry of trades

- Provides a market standard dealer card to provide a real-time breakdown of the position

- Offers powerful option pricing and risk management, recognised as the market standard for LME option desks

- Provides native interfaces to LMEsmart matching system to allow a high level of STP for the matching process

- Electronically executed trades from LMEselect can be automatically captured using data held in LMEsmart

- Allows uploading / downloading of warrant details from LMEsword for warrant deliveries

- Automates the feed to the General Ledger system for accounting

The Brady solution is available either as a full system – providing front-to-back functionality across the full trade lifecycle, or by module – allowing clients to benefit from new features without having to re-architect across the organisation. Examples of more modular solutions that have been successfully put into production for LME brokers within their existing architecture are:

- SPAN margin and VaR engine for client margin calls

- P&L attribution to improve P&L reconciliation

- Warrant management and invoicing including an LMEsword interface

- Front office tools for deal capture and dealer cards

Brady as a Component of a Bank's LME Architecture

In the banking sector, many of our customers have already made significant investment into components that partially support the LME trade lifecycle.

This can include:

- Order Routing services such as Easyscreen and Banctec

- Cross asset platform trading platforms such as Calypso or Murex

- Exchange connectivity middleware such as Clearvision

- Listed derivatives back-office systems such as GMI

Brady offers modules to complement these systems, offering solutions to:

- Difficulties in obtaining a complete view of the LME business across all channels, (electronic, voice and Ring, in the case of Category 1 members and OTC positions) for OTC and on-exchange products

- Manual work-arounds and peripheral home grown applications being required to handle trade management activities such as give-up and give-in, allocations to client portfolios etc.
  This is particularly the case for trade types such as Average price that are unique to the metals marketplace

- Difficulty in calculating and reconciling P&L

- The need for additional applications to handle regulatory and other reporting

These issues have the overall result of increasing the cost per trade of managing LME business and increased operational risk. In this environment Trinity can be implemented as an intermediate layer between the front office applications and the market connectivity middleware so that all trade management activities associated with processing a trade can then be automated including:

- Reliable trade capture and consolidation of trade data in one location

- Reduced cost of processing trades

- Accurate fee and commission calculations according to your business rules

- Allocation of income to correct business centres

- Increase added value services to your customers

- Exception based STP to allow volume growth while also reducing error rates

- Real time trade status reporting

- Intraday risk and position reporting

- Centralised data repository for global reporting and analysis

- Compliance reporting made easier for FSA and MiFiD etc

Why Choose Brady?

Now more than ever companies must be able to quickly identify the opportunities that are available and mitigate the rapidly fluctuating costs that they face in today's ever-changing world markets. That's why a wide range of organisations operating in the commodities markets relies on Brady's solutions to manage their trading operations and financial processes, base on their ability to:

Improve profitability

Timely access to accurate and consistent information supports the informed decision-making needed to capitalise on evolving market opportunities and optimise margins

Reduce risk

Enable businesses to proactively track, measure, evaluate and manage trading positions in order to minimise the associated risks

Increase productivity

Streamlined processes and centralised data, document and communication capture and retrieval help to maximise efficiency, save time and resources, and reduce errors

Minimise costs

Provide the tools to identify the most cost-effective way to finance activities and closely align revenue and associated costs to ensure tight fiscal control

Strengthen business relationships

Enhanced contact and communications management enable the depth and breadth of customer and partner relations to be proactively enhanced and exploited

Ensure compliance

Advanced deal tracking, auditing facilities and sophisticated reporting tools help improve regulatory/ accounting compliance and business control

By offering a suite of fully compatible and proven solutions that are easy to use, Brady also removes much of the risk associated with inhouse or bespoke trading solutions – minimising costs and complexity, increasing reliability, scalability and security and simplifying ongoing maintenance and enhancements. all results are inputted.

Components of the Brady LME Solution

The components of the Trinity LME architecture are shown below. This illustrates how Trinity can be integrated into an existing IT architecture including order routing, front office and market connectivity middleware.

Trades are fed into Trinity from the order routing application and front office platforms via the in-built connectivity tools. Trades can also be captured directly into Trinity either via our Front Office Capture Screens (FOCS) or for complex structures, via a more traditional trade capture screen.

Once in Trinity all of the core Trinity trade management, risk and reporting tools shown in the central part of the diagram can be used as required.

Highlights include:

Front office

- Streamlined capture screen
- Option and strategy pricing screens
- Electronic trade feeds
- Dealer cards
- Real-time P&L

Risk management

- Dealer cards.
- Sensitivity analysis
- Risk matrices / stress testing.
- Desk level VaR

All of these are available on demand using the latest market and trade data held in Trinity. The ability to obtain VaR numbers without need to reference a centralised VaR system is seen as a particular benefit by our customers.

For connectivity to the Exchange for matching, Trinity includes a complete LMEsmart connectivity suite which can either be used to provide a direct connection to LMEsmart, or connection through Clearvision or other market connectivity middleware.

For organisations trading LME warrants, Trinity provides a complete solution for warrant operations, with an in-built interface to LMEsword. For organisations that are also handling off-warrant material and managing the process of transfers between on and off-warrant stock, this can be extended using the Trinity Physicals functionality to provide a complete solution.

Trade enrichment and operations/ trade management functions

- Matching
- Reconciliation
- Give-ups/ Give-ins
- Price fixations
- Commissions
- Allocations
- Settlements
- Netting
- Early close out of positions

Client reporting

- Automation of the confirmation process
- Invoicing
- Client statements and other reports
- Web portal for client access

Components of the Brady LME Solution

Trinity Components	Trinity API's Interface	External Systems

LME select → **LMEselect Interface**

Other Exchanges → **Trade Import API**

Order Routing Systems → **Trade Enrichment**

FOCS (Manual Capture) → **Trade Enrichment**

WARRANTS

LME sword warrants → **Download / Upload LMEsword Interface**

MARKET DATA

Reuters, Bloomberg, Fastmarkets, Excel → **Market Data Hub**

LME Clear → **LME Clear Price Upload**

Trade Processing	Commission Rules	Confirmations
Margining	Give Ups and Transfers	Close Outs
Settlement Instructions	Netting Rules	Invoicing and Payments
Valuation and P&L	Limits	VaR
Commodity Risk Card	Risk Matrix	Sensitivity Analysis
Audit	Regulatory Reporting	Warrant Processing
Static Data	Crystal Reports	Application Security

Communications → **Clients and Counter-parties**

LMEsmart Interface → **LMEsmart**

Reconcilliation ← **External Data**

Trade Export Service → **Other Exchange Connectivity**

Trade Export Service → **Downstream Systems**

General Ledger Interface → **ERP/ Accounting Systems**

Client Web Access → **Web Portal**

LME Solutions for Clearing Members

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