Overview

TRAD/X is a single robust trading system for Equities, Fixed Income securities, Commodities and Futures with built-in risk management controls.

The TRAD/X system has a modern component service-oriented structure providing highly effective and flexible functionality, and can be used in conjunction with other CMA products intended for financial markets infrastructure automation (depository, clearing and payment systems) and integrated with other existing systems.

The level of exchange trade development is a key factor in the market economy in any country. In the context of a global economic integration, the tasks and problems related to commodities and stock markets in different regions of the world have much in common while also bearing their own specificities owing to the peculiarities of local legislation, existing industries and agriculture needs, technological infrastructure conditions and local business management traditions.

The creation of a state-of-the-art exchange infrastructure on the basis of electronic trade system takes place from spot trading to futures contracts and other financial derivatives trading.

CMA’s trading solutions take into account modern trends and open up opportunities for possible infrastructure development of electronic trading for Emerging Markets. The company’s solutions include systems scaling according to the market demands growth and integration into regional and worldwide financial structures.

Our product has been developed by the team of professionals who worked closely with Central Banks, Capital Markets and Exchanges. With such deep understanding of the domain we introduce innovative and robust solution.
The following are the highlights of TRAD/X functionality:

- **Multi-asset, multi-currency on a single platform**
  Support of general types of instruments: equities, fixed income securities, FX swaps, commodities and futures.

- **Auctions (book-building)**
  Our system supports Auctions: Primary, Buyback, Underwriting, Outright, When-issue, Green-shoe, REPO and Reverse Repo, Securities Lending and Borrowing and Interactive Auctions.

- **Multi-market types**
  Different type of markets such as quote driven and order driven.

- **Multi-order types**
  Automatic orders matching and trades execution:
  - Simple anonymous orders
  - Targeted orders
  - Partial orders matching
  - Fill or kill/fill and kill orders (partially or fully)
  - Good-till-canceled and Time in force orders
  - Repo/SLB orders cash and security-driven
  - Handle different settlement rules T+0, T+1,..., T+N and settlement priorities

- **Central Counterparty**
  System supports Central Counterparty trading facility for Repo, Reverse Repo and SLB transactions.

- **‘Pre-trade’ risk management.**
  Built-in risk management controls based on custom methods and SPAN-like algorithms;
  Pre-trade checks can include participant limits, shareholder or broker limits or counterparty limits for different markets.

- **‘Post-trade’ risk management.**
  It can be connected to clearing system(s) through well-designed interface on a bid-by-bid, trade-by-trade basis in online mode as well as an end-of-session trade.

- **Standard financial protocols**
  Support of SWIFT and FIX messages and protocols.

- **Multi-workplaces**
  - Trading participant workplace
  - System administrator workplace
  - Trades controller workplace
**Key Benefits**

- TRAD/X system is an easy to install solution. It’s proven and cost-effective solution.
- Experience in different market models and regulatory frameworks.
- Provides low-latency, scalability and flexibility.
- The system can be easily integrated with DEPO/X and requires minimal customization to integrate with other industry systems.
- Provides solution for information interaction with other systems through electronic messaging.
- TRAD/X system was developed in accordance with industry standards and international organizations recommendations:
  - IOSCO, BIS and World Bank recommendations and principles;
  - SWIFT, SWIFTNet Standards;
  - ISO15022, ISO20022, UNIFI-ready;
  - XML;
  - UML;
  - UNIX and Microsoft Windows Standards.
Trades Organization Principles

- Advance reservation of financial and trade resources prior to start of trades and online checking of orders provisioning via the clearing system.
- Different mechanisms for orders input:
  - Remote via trade participant workplace;
  - Via trade participant workplace in the sales area;
  - Via trade system employee workplace on the basis of faxes, mail etc.
- Automatic reports for traders and market regulators.
- Information disclosure.

Interaction with Security System

- A full-function interface is implemented in the system for security system connection which is certified for use in the participant’s country.
- The system can interact with commercial security systems used in international payment systems (RSA, Entrust, etc.)
- Successfully tested for certified national security systems and operation with local authorized organizations.

Distributed Multi-Level Structure of the System

- Multi-level structure provides robustness and high efficiency.
- Distribution of functions between the levels allows preventing bottlenecks.
- The module solution allows for:
  - Component functionality distribution;
  - Component reuse;
  - Easily enlarge the functionality.
- Approach oriented for function efficiency through STP (Straight-Through-Processing).
- Monitoring of operational continuity and integrity on every system level.