

SECUR™
Clearing solution



EFFICIENT SECURITIES TRANSACTIONS

How to keep your cool when the heat is on

The SECUR™ clearing solution from OMX

Recent history has given the markets a brisk – and sometimes painful – lesson in what volatility is really all about. And contrary to the decline in equity volumes, derivatives have stayed on top. This, combined with the need for marketplaces and clearing organizations' sharpened focus on profitability, sets a heavy emphasis on the stabilizing forces. A robust, rapidly responding clearing solution won't change the climate on its own, but it will guarantee that you know your position and provide a stable environment for running your business.

SECUR is the clearing solution that has evolved with the marketplace. Developed for an integrated for-profit exchange and clearing organization, SECUR meets the needs of both the clearing organization and its members, thereby minimizing market and operational risk significantly. Its built-in efficiency reduces human effort to the bare minimum when it comes to clearing, margining and settlement. Quite simply, SECUR enables STP you've only dreamed of to power your clearing operations in all types weather.

CLEARING – THE WAY YOU WANT IT

In a perfect world, clearing would be ultra efficient. Clearing volumes could soar without increasing the need for clearing staff. Risk and administration would be a breeze to control. And it would be easy to introduce new products quickly. A considerable increase in the number of accounts would be good news – not a problem. And applying different rules to different products would not be a headache. SECUR is as close as you can get to perfect clearing – on the end customer and member level, as well as for non-clearing members, enabling you to expand your client base significantly.

MARGINING WITH THE RIGHT AMOUNT OF COLLATERAL

Calculating the right margining requirement is a matter of ensuring both profitability and security. SECUR has a portfolio of risk valuation models that use advanced correlation methods to determine just the right amount for actual margining requirements. Members have access to margin information and can calculate real-time margins on their current positions, including added simulated trades. By using automated give-up, clients can trade through different members on a trade-by-trade basis, but need only one margining requirement. And all trading accounts can be linked to one clearing account where the aggregated position is held.



SETTLEMENT – FLEXIBLE BILLING ALL THE WAY TO THE BOTTOM LINE

SECUR makes settlement as reliable and efficient as possible with a minimum of effort. Calculations are carried out daily for each client and payment instructions are transferred to each member in the desired currency, with fees, premiums and margins in different currencies, if desired. This and other information is relayed electronically to all involved parties. The SECUR Participant Interface used by each member makes it easy to process the information and forward it to other systems and applications.

EASY TO INTRODUCE NEW PRODUCTS, MEMBERS AND MARKETS

The flexibility of SECUR makes it easy to introduce new products quickly, change fee structures with ease and map clearing rules transparently. With SECUR, you can offer centralized multilateral clearing of standardized exchange-traded products, and offer tailor-made clearing to the OTC market without costly software adaptations. SECUR also supports member and client clearing models or a combination of both. For example, the Stockholm Stock Exchange has close to 200,000 client accounts.

MULTIPLE MARKETS ON ONE PLATFORM

SECUR supports a wide range of markets extending into next-generation cross-border clearing – all on a single platform, freeing you to pursue strategic alliances or new market areas. SECUR offers solutions for the following markets:

- Equity
- Fixed income
- Commodity
- Energy

Running multiple markets in one system provides many benefits including:

- Lower operational costs
- Less hardware required
- Easier for Independent Software Vendors (ISVs) to program against one common API
- One common clearing application for members
- Centralized administration and common definitions for members and instruments
- Reduced bandwidth requirements since underlying information is only distributed once
- Elimination of unnecessary testing

BOOSTING EFFICIENCY FOR ALL PARTICIPANTS

The SECUR system supports a virtually unlimited number of clients, clearing members, agencies, and custodian banks, bank accounts and currencies. SECUR hosts linked exchanges, connected exchanges, clearing organizations and central securities depositories (CSDs), for example, EXIGO CSD™ from OMX. In combination with CLICK XT™, SECUR provides a totally integrated trading and clearing solution. With full support for clearing administration tasks such as amendments, allocations, give-ups, commissions, exercises, transfers and other convenient arrangements, SECUR allows members to handle administration online. The various aspects of trades can be propagated to different accounts – margins, positions and settlement.

SECUR is a three-tier, client server system with built-in scalability. Through its open interface (Open API), members can connect their own back-office applications or a third-party application to the clearing organization to achieve full STP. Members can also create and administrate accounts from the back office.

New server engines can be added and the system can easily be reconfigured to partition the market load on more machines. Such capacity enhancement can normally be arranged overnight.

TAILOR-MADE CLEARING FOR THE OTC MARKET

With SECUR, you can report, match and clear a wide range of OTC products, as well as create your own tailor-made OTC products at the reporting stage, from flexible options to complex swaps.

SECURITY AND RELIABILITY – ALWAYS ON TOP

With SECUR, you're guaranteed top-notch security. Mission-critical transactions are duplicated on a secondary server using the OMnet network and its underlying Reliable Transaction Router (RTR). For transaction reliability, each user is identified by a unique profile with the right to access only relevant information. Transactions are checked for validity, syntax and consistency before entering the network. This also includes the times during which transactions can be carried out so that transactions are only allowed within specific time slots. All transactions from unauthorized devices are intercepted and every transaction is authenticated for added security. This means that an intruder cannot modify content. Encryption of traffic is also available for additional security.

EVERY EVENT IS TRACED

All trades are safeguarded with SECUR. Trade information is checked for accuracy at all times and made available only to those with the proper authority.

From the time a deal is initiated to when clearing is completed, all events can be traced. No transactions may be removed – only rectified by new transactions. Every trade consists of an unbroken chain of sequence numbers. Another important security function is a user audit trail.

FULL SYSTEM MANAGEMENT FUNCTIONALITY

In addition to using its own application management system, SECUR includes a number of standard products for management, supervision and diagnosis. RTR, a distributed transaction system for financial networks, provides the ability for extensive monitoring of transactions.

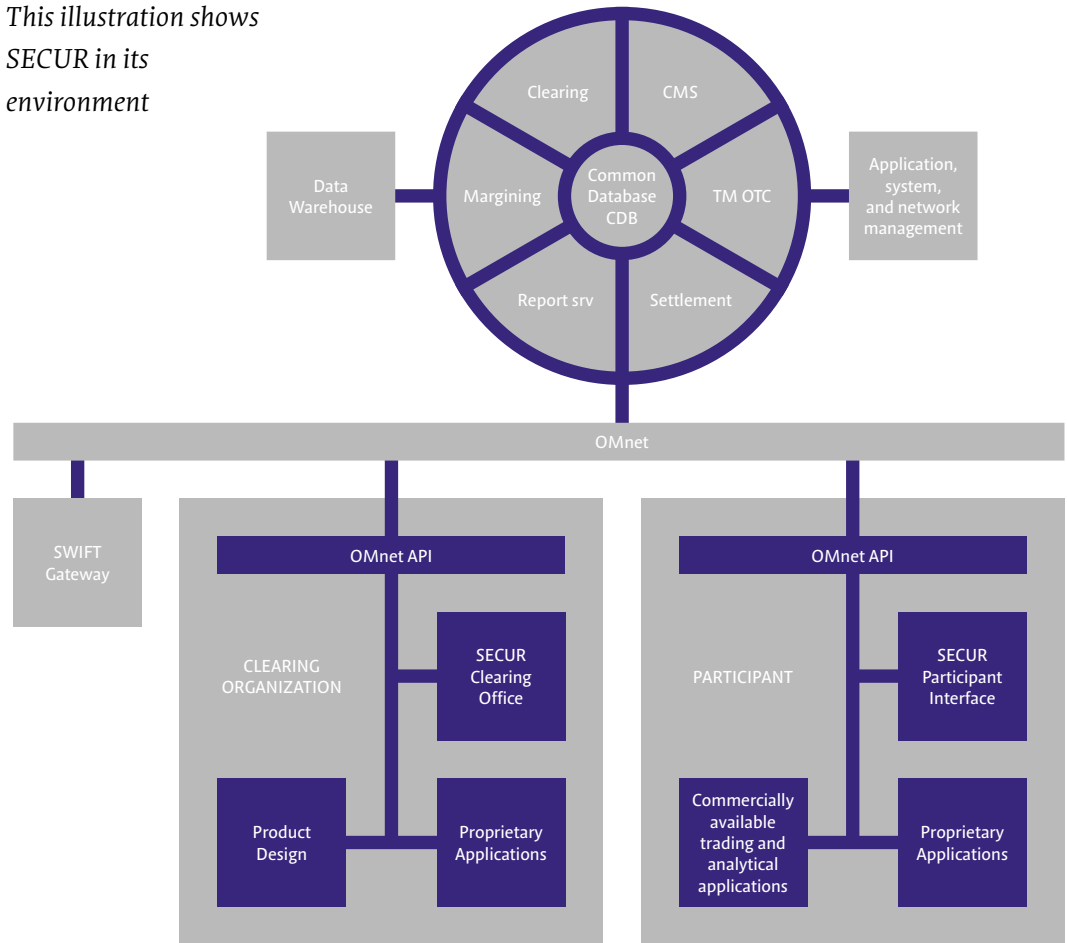
System operators are also provided with BMC's Patrol for system and configuration management. Alarms and messages are presented to operators in real time and the required functionality to start, stop and reconfigure the central application is included.

GROW YOUR BUSINESS WITH SECUR

Together with customers, OMX continually enhances and updates SECUR in pace with marketplace demands and technological developments, keeping it at the forefront of technology in terms of functional diversity and performance.

GET TO KNOW SECUR

This illustration shows SECUR in its environment



Open API

SECUR is a set of modular subsystems designed according to a comprehensive software and hardware architecture. The system components interact by using standardized transactions through the system's API. Thanks to the open API, SECUR is easily accessed by external applications developed by third party developers or by the participant's own developers.

OMnet

The business transaction network OMnet links all clients with servers located at one or more clearing organizations. The business transaction network is based on international standards, and also provides additional security, data integrity and management functions. Shadow servers duplicate mission-critical transactions for disaster recovery. By adding or removing back-end servers the system is easily scaleable.

CLEAR ANYWHERE, ANYTIME

Marketplaces in different geographical locations increasingly compete with each other for business. With SECUR, you can offer virtually 24x7 availability for worldwide real-time processing and consistent time handling, allowing concurrent trading and clearing dates.

YOU'RE IN CONTROL WITH GLOBAL SUPPORT

OMX offers around the clock local support for SECUR as well as facility management services including running operations and providing operational support. OMX support

agreement also includes regular system upgrades or releases with new and additional functionality. In addition, OMX provides standard and customized training and relevant documentation for various operational aspects.

CLIENT APPLICATIONS

A number of modules and client applications can be seamlessly integrated into SECUR, including the following:

- SECUR Participant Interface Application – for participant back-office users
- SECUR Clearing Office Application – for clearing staff
- Product Design – for designers of clearing products

ADD-ON MODULES

- Data Warehouse solution – for business analysts
- SECUR OTC Trade report matcher module
- SECUR CMS – Collateral Management System
- SWIFT Gateway
- Report Server – for customizing reports

SECUR TECHNICAL FACTS

- Operating System (CPU): OpenVMS (HP Alpha) or Solaris (SUN Sparc) and Windows (PC)
- Database: Oracle RDB (OpenVMS) and Oracle (Solaris)
- Transaction Infrastructure: RTR (HP Reliable Transaction Router)
- Application Management by AppMind from AppMind Software and BMC Patrol
- Supports multi-site configuration
- All business-critical servers can be mirrored

CUSTOMER EXAMPLES

- Athens Stock Exchange
- The Clearing Corporation
- EDX London
- FUTOP, Copenhagen Stock Exchange
- Helsinki Stock Exchange
- Hong Kong Exchanges & Clearing
- Korea Futures Exchange
- Nord Pool
- SFE Corporation
- Stockholm Stock Exchange
- Wiener Börse

OMX is a leading expert in the exchange industry. Through the Nordic Exchange in Copenhagen, Stockholm, Helsinki, Riga, Tallinn and Vilnius, OMX offers access to approximately 80 percent of the Nordic and Baltic securities market. Our integrated technology solutions span the transaction chain enabling efficient securities transactions for exchanges, clearing organizations and central securities depositories around the world. OMX is listed on the Nordic Exchange in Stockholm, Helsinki and Copenhagen. For more information, please visit www.omxgroup.com

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