

LSEG Markets Technology Depository

The LSEG Markets Technology suite provides robust, scalable and high-performance solutions for operators of trading venues, clearing houses, central securities depositories and related businesses. The products are used by LSEG to operate its own businesses and are proven in demanding global markets and regulatory environments.

A comprehensive product for Post Trade Depository services

LSEG Markets Technology Depository provides integrated custody, settlement and asset servicing functionality for equity, bonds and other key cash market instruments. The rich features of the Depository product form part of the LSEG post trade suite that includes the integrated Clearing and Risk offerings. Combined, the post trade suite provides a fully integrated, reliable, cost-effective and nimble solution for the full spectrum of post-trade requirements.

The Depository product provides end-to-end coverage of core and ancillary functionality required by securities depositories. The product is built on top of the proven LSEG Markets Technology Advanced Platform to deliver a high-performance system with high resiliency, performance, and scalability to service global market infrastructure customers.

Key facts

01

Proven product: Production ready, supporting post-trade services under varying account structures, including over 2 million accounts under beneficial ownership.

02

Distributed architecture: Allows our customers to pick and choose the subset of services they wish to deploy as part of a complete integrated solution, or interface into and enhance services of an existing legacy infrastructure.

03

Deployable on cloud: Leveraging the latest technology stack to reduce total-cost-of-ownership (TCO) and time-to-market.

04

Adherence to processing standards and regulations: Including market standards such as Principles for Financial Market Infrastructures (PFMI), corporate action processing (CAJWG), settlement matching (ECSDA), messaging standards (ISO20022/15022) as well as practices encapsulated within regulations such as CSDR and the Settlement Finality Directive (SFD).

05

High performance product: Powered by the same core platform supporting our Exchange solutions, capable of processing over 5,000 messages per second within a single partition. Multiple partitions can be added to scale the system horizontally. The in-memory processing model allows the system to rapidly execute batch processes with volumes exceeding multi-million payment and settlement instructions.

06

A key element in an integrated suite of products: The Depository product is a component within LSEG's post trade suite, which in turn is part of a larger suite of integrated products covering the full trade lifecycle required by any market infrastructure. Seamless integration between our products as well as with external 3rd party systems helps achieve STP across all participants in the marketplace.

Functional highlights

01

Flexible account structure: Supports varying levels of custody with flexible account types, including omnibus, segregated, and beneficial ownership models.

02

Global standard for settlement instruction: Settlement instruction management and comprehensive pre-settlement processing in-line with CSDR and ECSDA standards.

03

Optimised batch and RTGS settlement models: Innovative True DvP settlement model supporting both optimised batch and RTGS settlement processes. Includes support for partial settlement and linkages.

04

Configurable transactions processing models: Providing multiple workflow options for transfers, pledges, deposits, and withdrawals and issuance activities.

05

Automated processing for corporate actions: Processing in line with CAJWG standards, supporting all ISO standard events, with the flexibility to support many non-standard variations.

06

Cross border settlement on SWIFT: Providing STP with external Issuer CSDs and custodians.

07

Cash account and balance management model: Powering payments that are part of settlement, corporate action, and fee processing activities. Includes SWIFT payment integration.

08

Decentralisation of operations: Allows depository participants, issuers, and registrars access to core and value services. Reduces work for administrators through self-service by external users.

09

Complete post trade service: Ancillary modules extend post-trade services across the wider spectrum of securities processing from IPO allotment and issuance to proxy voting.

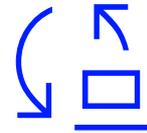
Key business benefits



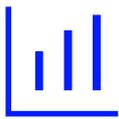
Reduces cost and complexity with complete STP: The standardised interfaces and real-time messaging capability enables cost-effective, straight through processing (STP) leading to improved operational efficiency and minimal input errors.



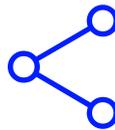
Global best practices and regulatory compliance: The Depository product is designed around the latest market practices and messaging standards to increase the efficiency of your operations. This supports our customers in achieving regulatory compliance and following global best practices.



Perfectly tailored to the business needs: The system offers a rich set of integrated functional modules with flexible workflows and features that can be configured to meet local requirements.



Business growth through new revenue opportunities: LSEG Markets Technology Depository includes ancillary functionality that broaden the scope of processing by a Market Infrastructure and influences additional revenue generation and new business opportunities.



High scalability and adoptability: The system can seamlessly scale up to meet future needs on off-the-shelf new hardware without any changes to the application.



Uninterrupted business services: Resiliency, is a key attribute of the Depository product due to the standby processes enable service continuance during machine and/or network failure at no additional costs.



Leveraging 25+ years of experience: Benefit from the 25+ years of experience implementing mission critical capital market infrastructure at over 40 customer sites across the world. LSEG works with its customers to devise solutions, drive transition management, deploy applications and provide go-live and post-go-live operations support.

Key components

LSEG Markets Technology Depository is implemented in a distributed architecture to enable superior scalability, performance and fault tolerance. Our technology takes advantage of the latest advancements in multi-core technology and low latency interconnections to provide online response times of under 10 milliseconds at the direct API level.

The logical functional units of the system are broken down into smaller application modules that can be deployed in the infrastructure configuration required to fit the service profile of specific CSDs. This same architecture also supports LSEG Markets Technology Clearing and Risk products, enabling them to be integrated together seamlessly to offer a complete post trade infrastructure.

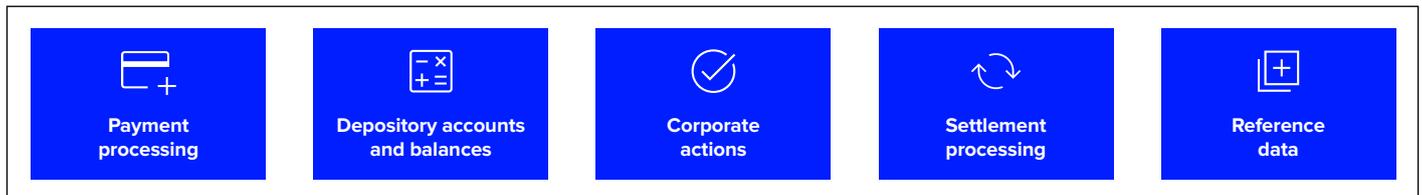
The standardised interfaces and real-time messaging capability enables cost-effective, straight through processing (STP) whilst improving operational efficiency and minimising input errors.

Key Components of LSEG Markets Technology Depository

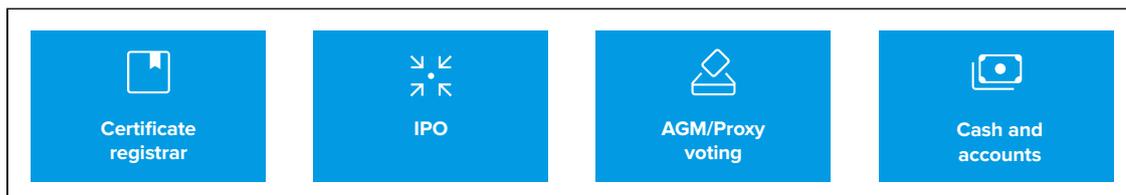
Participant and user interfaces



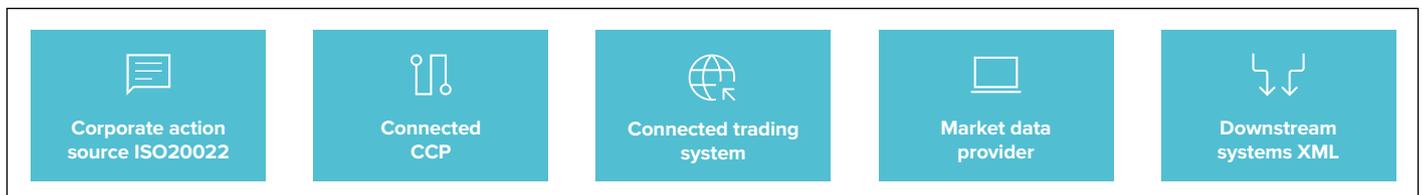
Core depository service modules



Value added service modules



Market infrastructure integration



Payment and cross border integration



Technical overview



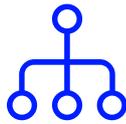
Leveraging a proven technology platform: LSEG's Depository product is built on top of the LSEG Markets Technology Advanced Platform, enabling high performance batch and real-time processing together with the superior resiliency that characterises all our products—from order routing and trading to post trade processing—that are deployed in multiple customer sites across the globe.



High performance and extensive scalability: Operating on a low-cost Linux platform and run on low maintenance commodity hardware infrastructure or on the cloud, LSEG's Depository product is cost-effective to test, deploy, maintain, and upgrade. A single processing node may process 5,000 messages per second, with up to 5 million transactions processed in a single batch, with the system capable of scaling up using multiple nodes.



Standardised integration: SWIFT and ISO based gateways provide standardised communication channels with external entities such as payment systems, external CSDs, corporate action dissemination systems and participants. Additionally, the downstream gateway provides a consistent and standard interface to external systems such as an Enterprise Service Bus and can be used to ease connectivity to the multitude of systems which exist within a post-trade ecosystem.



Ensuring resiliency and quick recovery: This multi-component system is managed by LSEG's proprietary process management and life-support system, SysGuard. This approach eliminates single points of failure, ensuring resiliency and quick recovery to provide an uninterrupted service.



Self-serviceable through a rich UI: The web-based user interface provides access to a rich set of functionalities that can be used by business operators as well as external participants via standard web browsers.

Technical features

- Physical or cloud deployment
- Distributed, message-based
- Software-based fault tolerance with zero data loss
- Business rule engine
- Web-based front ends
- Database: Oracle
- Operating system: Linux

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