Clearstream Collateral Management – OSCAR

Innovative solution

Own Selection Criteria with Automated Reasoning (OSCAR)

Key benefits

Easy to implement

Eligibility criteria and basket definitions are based on layman's language, simplified for creation and implementation.

Robust

Any criteria created in OSCAR is de facto compliant with Clearstream's collateral management application (CmaX). OSCAR has a built-in control mechanism for inconsistencies.

Intuitive

State-of-the-art user interface allows customers to easily navigate through self-explanatory functionalities of OSCAR.

Flexible and efficient

Customers can develop their own rules significantly reducing the time to implement new collateral baskets.

Complementary

OSCAR is an additional tool complementary to the existing services offered by Clearstream.

Leading-edge technology

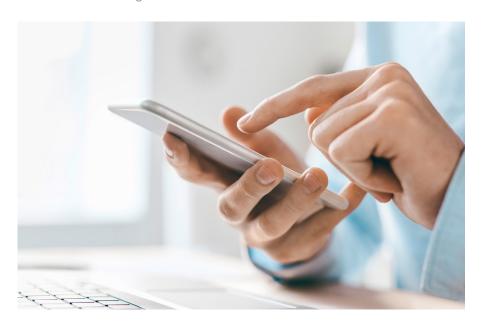
Logical reasoning allows customers to verify baskets and eligibility criteria earlier in the process compared to other industry solutions. This ensures that the baskets are immediately validated.

Negotiation workflow

Full negotiation workflow between both parties including track changes, full version control and 4-eye validation.

Automate your collateral basket negotiation

In light of evolving business models and regulatory implementations in the collateral management space such as Uncleared Margin Requirements (UMR), customers are seeking most efficient ways to ease and optimise the definition, creation and exchange of eligibility profiles, across the different services of Clearstream triparty collateral management.



As business requirements and market conditions change, customers are looking to amend and adopt their collateral baskets. Issues are not only limited to the creation, but also to the maintenance of bilateral baskets impacting operational resources. Market participants leveraging the services of multiple triparty agents are challenged to review, compare and translate different profiles.

Defining intelligent eligibility criteria

Leveraging several artificial intelligence (AI) techniques, Clearstream will provide a new highly flexible application, named OSCAR (Own Selection Criteria with Automated Reasoning) which allows customers to easily define, create, and negotiate optimised eligibility profiles of collateral baskets.

The creation of eligibility profiles is based on more than 100 selection critieria, across different asset classes. While supporting users in defining their own eligibility criteria, OSCAR is checking for inconsistencies and ensures interoperability with different counterparts, improving collaboration, negotiation and reconciliation.

Innovation based on Automated Reasoning

Key functionality

OSCAR provides the following functionality to address:

- Creation of new collateral baskets, using templates or defining them from scratch
- Development of 'own definitions', using customer's own vocabulary
- Import of existing baskets using Clearstream 'Collateral Basket – Extended report in JSON format'
- Amendment of existing collateral baskets
- Export of created baskets in the natural language or in pdf document similar to current Clearstream eligibility profile
- Reasoning on baskets, including eligibility checks and haircut calculation on positions; and confirming equivalence of inventories against basket at logical level
- Fully automated (re-)negotiation workflow with email messaging integration.

Advantages of artificial intelligence

Addressing the above rather complex challenges requires a high degree of out-of-the box thinking. Hence an approach based on innovative technologies prove to offer the best possible solution:



- Natural Language processing
 Natural Language processing
 helps the customer to define
 its eligibility criteria with its own
 vocabulary while ensuring
 immediately that it complies
 with our Collateral Management
 systems' requirements.
- Automated reasoning technologies
 Automated reasoning technologies,
 such as OSCAR, allow to offer functionalities on the baskets
 from their inception, to ensure correctness at the earliest steps.

Innovative logical reasoning at creation stage allows customers to verify baskets and eligibility criteria earlier in the process than other traditional solutions of the industry. For example, the customer can easily compare

two baskets and check the difference between two sets of rules on a logical level before even reaching the triparty system or any portfolio of securities. This means that the customer can immediately see the logical impact of a rule and validate the baskets.

Stand-alone with limited dependency

OSCAR is designed to allow customers to develop their own rules with minimal need of assistance of Clearstream's Relationship Management or Operations teams and will therefore significantly reduce the time to implement a new collateral basket. OSCAR is an additional tool complementary to the existing services offered by Clearstream.

Contact information

For further information, please contact your Relationship Manager or the Collateral Management team.

www.clearstream.com