



# CDM Business Cases

DOCUMENT DIGITALISATION

[CHRIS.RAYNER@ISLAEMEA.ORG](mailto:CHRIS.RAYNER@ISLAEMEA.ORG)

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## 1 Introduction

In today's fast-paced financial industry, financial institutions are constantly seeking efficient and cost-effective ways to streamline their processes and improve operations. One area that can benefit from digitalisation is the management of legal contracts. The use of digital technology to store, manage and share legal documentation can significantly reduce time, costs, and improve compliance in the financial sector.

The purpose of this document is to present a business case on how the Common Domain Model (CDM) can be used to resolve some of the issues found when negotiating, forming, storing and enquiring upon legal contracts and agreements used in the market today.

The CDM is a freely available Open Source model maintained by the Fintech Open Source Foundation (FINOS). It can be used to model financial products and events, supplying business logic and functions that manage a trade's lifecycle as it transitions from one state to another. The model has been developed by trade associations and industry professionals for the benefit of all market participants, harmonising and standardising data structures and processing.

The CDM has been written to be language and infrastructure agnostic, one of its guiding principles being to provide objects that can be distributed across multiple applications and technologies. This reusability and interoperability places the CDM firmly at the forefront of the market in our drive towards a digital future.

## 2 Executive Summary

Traditional methods of managing legal documentation are both time consuming and inefficient. Paper based, email and telephone negotiations require a lot of back and forth between internal teams and external counterparties, and can often stall where opinions or reviews are required from additional personnel or departments.

Even after a document has been agreed there are still issues seen with where, whether and how it is being used. Regulators need organisations to ensure that they have the correct agreements setup, are up to date, and that the trades placed with the parties on the agreement conform to the elections agreed.

There is however still a disconnect between the trade and the contract, with the contract generally not being integrated with the trade, making it all too easy to inadvertently use the wrong agreement on a trade – or trade with a counterparty with whom there is not a current agreement in place.

A standard digital representation of a legal agreement will facilitate the negotiation process between systems and firms and can be attached to the digital representation of the trade itself.

Working towards this goal, in 2021 the International Securities Lending Association (ISLA) created the ISLA Clause Library and Taxonomy<sup>1</sup>. This extracts the clauses and variants from the Global Master Securities Lending Agreement (GMSLA) based upon their business outcomes. In 2023 ISLA contributed changes to the CDM allowing Master Agreements to be modelled.

This paper outlines how firms can use the ISLA Clause Library and CDM together in order to create standardised digital representations of their securities lending master agreements. This can radically improve the time taken to negotiate documents, providing a common format for other departments or firms to efficiently agree and update the elections online.

In a recent report by the International Swaps and Derivatives Association (ISDA) it was found that negotiating agreements digitally saved a significant number of business days for the survey group<sup>2</sup>. Alongside the time savings, negotiation platforms like CreateIQ<sup>3</sup> or SmartDX<sup>4</sup> can use these digital structures to offer document templates, allowing hundreds of documents to be created or updated in a matter of hours rather than weeks.

In a case study commissioned by Acadia and LikeZero it was estimated that digitising existing contracts could save the industry between US\$622 million and US\$1.19<sup>5</sup> billion. The costs of maintaining, amending or updating these agreements going forward would also result in savings estimated to be in the region of US\$126 million a year.

Once a legal agreement has been codified the elections within it are available for further data analysis. This can be utilised for regulatory reporting, risk and compliance management or contract enquiries. It also allows trades to be programmatically validated against the agreements they are governed by and paves the way for automating lifecycle event processing through the use of Smart Contracts.

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<sup>1</sup> The International Swaps and Derivatives Association and the International Capital Markets Association also have Clause Library projects for their master agreements.

<sup>2</sup> The “ISDA-Create-Unlocking-Efficiencies-and-Savings-Digitized-Legal-Documentation-Negotiation.pdf” report available on [www.isda.org](http://www.isda.org) found that phase six firms negotiated 2,519 agreements on the CreateIQ platform, which was estimated at saving them 157 business days

<sup>3</sup> Provided by Linklaters: <https://www.linklaters.com/en/about-us/createiq>

<sup>4</sup> Provided by Smart Communications: <https://www.smartcommunications.com/products/smartdx>

<sup>5</sup> The “Are you invested in agreement digitization\_An industry view of the cost.pdf” report is available from [www.acadia.inc](http://www.acadia.inc) or [www.likezero.co.uk](http://www.likezero.co.uk)

### 3 Business Problem

Traditional management of legal contracts can be time-consuming and labour intensive. Legal contracts are sensitive, require timely processes, and must be up to date at all times. Lack of efficient management of legal contracts can result in compliance risks, potentially leading to substantial penalties or fines.

Contract management in securities financing currently has two main problem areas that need to be addressed.

#### 3.1 Inefficient agreement negotiation

Negotiating contracts can often require a lot of back and forth between the legal departments of the counterparties involved in the agreement. Differences in documentation pre-print versions, terminology, clauses and variants can result in lengthy delays, preventing efficient on-boarding of new clients and business lines.

This lack of standardisation in legal documentation is not only inefficient but can lead to ambiguity in the legal meaning of a document. Delivering an agreement that is focusing on the wording and not the business outcomes can result in trading methodologies that contravene the actual terms that have been agreed.

With the increased scrutiny of regulatory reporting it is now imperative that agreements are managed correctly. Regulators are requesting more and more data on a regular basis<sup>6</sup>, meaning that the time and costs required to continually negotiate every document manually is becoming prohibitive.

#### 3.2 Trading with the wrong agreements

Every trade should reference the agreement that it is being made under. Unless a trading system enforces this though it is entirely possible that trading can take place between counterparties that do not have the relevant contracts already in place.

Where agreements are already in place they must also be kept up to date with the current regulatory and counterparty requirements. Any trade formed under these agreements must be validated to ensure that they conform with the elections made in the document. Where separate annexes are required for specific business lines then these must also be completed and associated to the master agreements.

Trading today is still suffering from instances where the wrong agreement is being used. For example, it is quite common to see repo transactions being traded under the ISLA GMSLA – there are many reasons why this could be happening, but in the event of a default on the trade there can be costly repercussions.

Maintaining agreements is both a manual and expensive process and has to be regularly undertaken to ensure compliance. This can be especially onerous where undocumented or bespoke agreements are being used.

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<sup>6</sup> In the “SmartDX-Solution-Brief.pdf” available on [www.smartcommunications.com](http://www.smartcommunications.com) it was stated that the Dodd-Frank Act introduced 29 new rules that affect pre- and post-trade documentation.

Apart from the domain specific issues illustrated above there are more generic problems with the current state of legal documentation too. These include things like:

- Difficulty in effectively enquiring or reporting upon paper or scanned contracts
- Inability to drill into an agreement in real-time
- Security implications of hardcopy documents
- Variable document formats

## 4 Solution

Recognising that the benefits of digitisation had not yet been fully realised by the legal departments of our member firms, ISLA undertook a project to create a Clause Library and Taxonomy for the Global Master Securities Lending Agreement. Created in conjunction with the ISLA members and D2LT<sup>7</sup>, the ISLA Clause Library and Taxonomy defines the variants and associated criteria required for every clause in the GMSLA.

Using the Clause Library allows member firms to codify the elections made in the GMSLA. This allows legal departments to focus on the business outcomes of the agreement rather than the wording. Furthermore, negotiation platforms can use the Clause Library to offer their clients a more efficient and enhanced negotiation experience, facilitating the creation of document templates and on-line real-time agreement updates.

The ability to model the clauses defined in the ISLA Clause Library has been added to the CDM. The CDM provides a standardised format for an agreement, allowing an object representing a document and its elections to be formed and passed alongside the trades that it governs.

This ability to include the elections of an agreement within the digital representation of a trade allows regulators and legal departments to tell immediately whether it has the correct agreement set against it.

Utilising both the ISLA Clause Library and the CDM together as a solution for delivering digital legal documentation can offer immediate benefits to an organisation:

### 4.1 Improved Efficiency

Digitising legal contracts increases the speed that key legal process steps (e.g. negotiation) can be completed in. In turn this streamlines operations and improves productivity. The improved data analysis offered by legal agreement objects will allow contracts to be processed quickly, efficiently, and with minimal human errors.

### 4.2 Improved Access and Visibility

Access to legal contracts and real-time updates will be instant, transparent, and accurate, thus allowing easier auditing, transparency, and quicker turnaround times. Improved access will also make it easier to analyse agreements, giving business intelligence tools the opportunity to drill into the contracts and uncover business advantages.

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<sup>7</sup> D2 Legal Technology: <https://d2legaltech.com/>

## 4.3 Standardisation

The common format of the legal agreement object as defined by the CDM makes it easier to pass agreement data between counterparties and systems. This standardisation accelerates onboarding tasks, especially where a large number of agreements are being considered.

## 4.4 Enhanced Security

Digital legal documents can be placed behind extra layers of security, with firms able to secure and manage them using enhanced identity management systems and process controls.

## 4.5 Cost Reductions

With a common interpretation and implementation of the terms of a contract there will be less incidence of mis-interpreting an agreement. In turn this will decrease costs associated to documentation matching and reduce the burden of dispute management. Digitising legal contracts can also eliminate the need for physical storage space, filing cabinets, storage boxes, offsite backups/storage, and other associated overhead costs.

New use cases for digital legal documentation will appear as more participants move away from traditional methods of managing their contracts. We should see more use of automation, validation and event management capabilities coming into play as digital contracts become more prevalent in the market.

The digital representation of an agreement can be used to validate whether certain actions performed on a trade are contractually allowed. This will improve the capability systems have to automate processing on a trade. For example, if a collateral substitution event is recorded against a trade, but the agreement prevents substitution, then this can be rejected by an application.

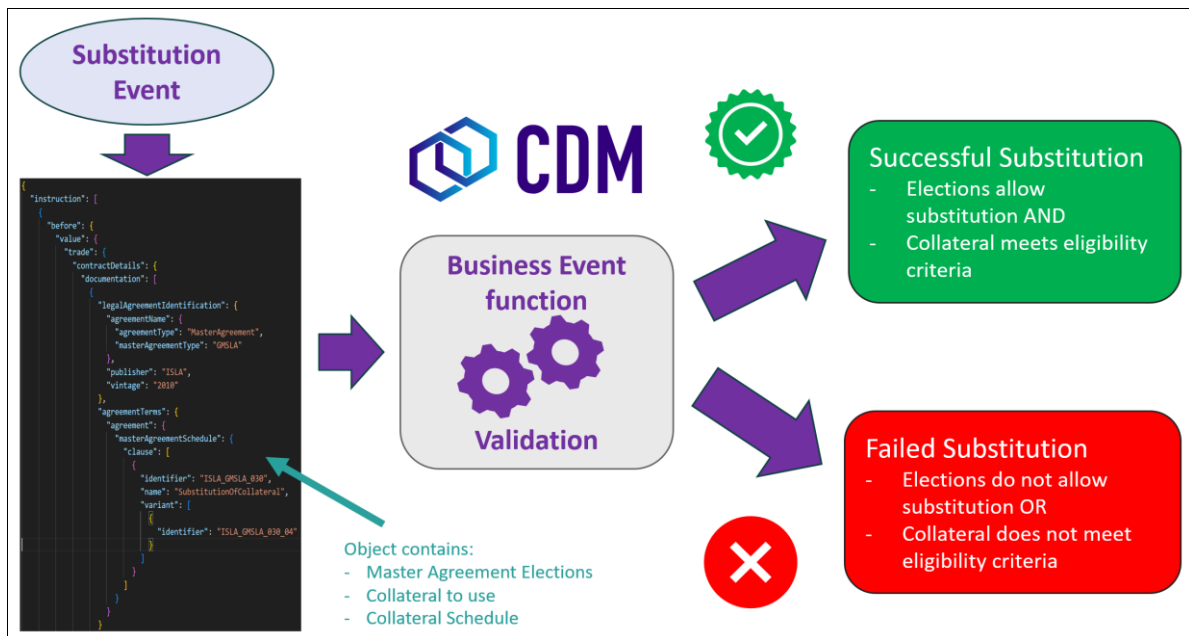


Diagram 1: A collateral substitution event is received. The JSON contains the Legal Agreement and Eligible Collateral structures so the CDM and application event processing can automatically determine if the substitution is valid and react accordingly.



If the agreement allows the collateral on a trade to be substituted, and the CDM object contains the collateral schedule eligibility criteria as well, then the proposed collateral to substitute can be further validated before committing the action. This is all made possible because the legal terms of the contract are being represented digitally.

Smart Contracts are often cited in relation to digitised content. With the elections of an agreement now being codified it is possible to create programs that will perform specific actions when a market event occurs.

A prime example of where a Smart Contract could be used is when processing corporate actions. Code can be written which will execute when a corporate action is received, performing the required changes based upon the elections made in the legal agreement. This allows an action like a stock split to be processed automatically and fully in compliance with the terms of the agreement on the trade.

## 5 Appendix

For more information about the CDM please go to the Common Domain Model microsite hosted by FINOS here: <https://www.finos.org/common-domain-model>

For more information about the work being done by ISLA please go to the main International Securities Lending Association website here: <https://www.islaemea.org/>

Details of the ISLA Clause Library and Taxonomy can be found here: <https://www.islaemea.org/isla-clause-library-and-taxonomy/>