HUNIT

The Functional Application of Smart Legal Contract Technology to the Practising Legal Sector

LAWTECH UK

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And with special appreciation for the time, effort, and creative thinking of the Solicitors Regulation Authority, whose help has been indispensable.

The sustained effort and guidance of the above individuals and entities has been critical in assembling this body of thought and is deeply appreciated. We hope that the work that we have done together proves to be valuable to the legal sector in general and to its effort to realize a natively digital future based on fully compliant use of smart legal contract technology. It is our view that this class of technology enables a digital transformation of law that represents an inflection point in the global business environment, enhancing its efficacy, transparency and security.

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EXECUTIVE SUMMARY

Introduction

This document set offers a multi-faceted examination of the use of Smart Legal Contracts (SLCs) by today's legal services industry. It follows recent ground-breaking work by the Law Commission which confirmed the general compatibility of SLC technology under the UK law[1] while also identifying five key areas of potential regulatory conflict that could render a particular SLC or SLC platform non-compliant. This document continues this work by describing practical, industry informed methods for using SLC technology in full compliance with these key areas.

This contribution is based on three sections, which progress from a discussion of the principles of compliant SLC technology application through to a detailed use case analysis including the full, unabridged text of an example SLC.

These sections are:

1. Whitepaper addressing the compliant use of SLC technology in each of the five key areas identified by the Law Commission and an exploration of the impact of SLC-led digital transformation on the global business environment.
2. Summary of a regulatory review undertaken in discussion with the Solicitors Regulation Authority to provide additional clarity to legal practitioners concerning specific key regulatory and ethical considerations related to the use of SLCs in regulated client services.
3. Detailed use case analysis of an escrow agreement based on the compliant use of SLC technology.

The insights shared here are based on the experiences and views of Hunit, a British legal technology company offering a comprehensive SLC platform and SLC authoring tools to legal practitioners. This body of work has been made available as a resource on LawtechUK's 'Smarter Contracts & Digital Assets' webpage.

Whitepaper: Practical Approaches to Resolving Structural Challenges to the Use of SLC Technology under English Law

Differences Between SLCs and Smart Contracts & Types of SLCs

Critical to the examination of SLC technology is the understanding that smart contracts are not smart legal contracts. Whereas smart contracts are used extensively within the so called 'decentralised finance' (or 'DeFi') space, their intended use is to reduce or eliminate counterparty risk in transactions between pseudo-anonymous actors. As such, they rarely form a legally binding relationship and the technologies they use are built on the basis that computer code running on Distributed Ledger Technology (DLT) environments are the first and last lines of defence. Smart Legal Contracts however, use DLT to create

[1] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/

trustable, legally-enforceable obligations with counterparty-neutral contract automation embedded in the legal agreement itself.

SLC technology is divided into three primary types: i) where the legal agreement is expressed entirely in code; ii) where the legal agreement is comprised of a hybrid of natural language sections in combination with self-executing code; and iii) where the legal agreement is entirely based in natural language with configurable technology assistance associated with its natural language terms.

Smart Contracts	Smart *Legal* Contracts
Purpose: mitigate counterparty risk in pseudo-anonymous transactions	Purpose: create counterparty-neutral contract automation embedded in the legal agreement itself
SCs cannot be altered once set in motion	SLCs can be altered after entering into effect
Code is the adjudicator of last resort	Law is the adjudicator of last resort
Cannot be paused or rectified	Can be paused or rectified
Intended to be used in DeFi	Intended to be used in the legal sector

Based on the experiences of Hunit and its extensive series of industry focus groups carried out over 6 international territories, the company has found that natural language, technology assisted SLCs represent the optimal modality for the introduction of SLC technology to the practising legal sector, its clients, courts and alternative dispute resolution platforms.

Areas of Key Consideration in Determining SLC Compatibility under Law

The Law Commission recently published its examination of SLC technology under English and Welsh law[2], in which it found general compatibility. However, the report identified 5 key areas of potential conflict with existing regulatory and legal frameworks which, depending on the SLC technology employed, may render SLCs incompatible under law.

Formation

The concern of the Law Commission relates to the extent to which that SLCs raise uncertainties in applying the requirements for the formation of a legally binding contract including agreement, consideration, certainty and completeness, intention to create legal relations and complicate with formalities. This relates primarily to instances where the SLC is rendered all or mostly in code and is not preceded by natural language communications which clarify the intentions of the parties. In Hunit's SLC technology platform, the use of natural language agreements with embedded technological assistance renders the process of negotiating an agreement largely unchanged. Additionally, the review and signature processes would be substantially the same as one finds in today's use of digital signatures. The terms and conditions contained in the natural language

[2] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/

text of an SLC may furthermore use the same conventions, structure, and approach as today's static legal agreements.

Interpretation

This consideration involves instances where a dispute arises and a court is asked to interpret the legal agreement. As is the case regarding formation, where the SLC takes the form of a natural language contract, the Law Commission notes that interpretation issues are less likely to arise as the natural language contract will be treated as containing the terms agreed upon by the parties. Hunit further believes that the transition to natural language SLCs has the potential to increase the ease of interpretation as the inclusion of embedded technological assistance in the agreement itself provides an adjudicator with additional information concerning the intentions of the parties. Hunit considers that this improved ease of interpretation will be further enhanced by a shift towards more of a procedural (and less declarative) use of natural language in the agreement text as the use of natural language is adapted to the additional practice of informing the procedural use of SLC-embedded automation.

Remedies

This area of consideration questions how SLC technology may impact the remedies that parties might seek and how a court might award those remedies should problems arise. How SLCs may be paused, rectified or otherwise remedied by their parties or by a court of law is a critical technological question. SLC technologies that impart the fatalism found in DeFi-oriented smart contracts is likely to render the agreements they record incompatible under law. Underscoring the importance of this key consideration, Hunit's focus groups found a pervasive belief amongst legal practitioners that DLT-based SLC technologies produced legal agreements that could not be stopped or changed once they have been set in motion. While the focus groups indicated that this belief emanated from the confusion between smart contracts and SLCs, it represents one the most significant hurdles to SLC use by the legal sector at large. Purpose built SLC technology platforms such as Hunit's allow for SLC elements such as 'force majeure' relief, rectification of a faulty SLC (either its natural language or automation components), and the use of human confirmation of critical steps in the SLC's automation, such as the payment of funds. Going beyond the types of remedies contemplated by the Law Commission, SLCs also open the potential to pre-plan multiple agreement outcomes in what the company refers to as 'multi-endpoint' SLCs. In this novel structure, the SLC is authored so as to contain multiple potential outcomes that are arrived at in accordance with events that occur after the SLC has entered into effect. A multi-endpoint SLC therefore presents a path to the technification of agreement remedies by containing pre-planned solutions which are executed in the event that specific types of breaches occur. An example would be the release of a set of authorizations to a qualified party which enable the liquidation of assets if and when an issuer of a corporate bond fails to make a principal repayment.

Consumer Protection

The Law Commission expresses concern over the interaction between SLCs and existing consumer law protections, namely: transparency and fairness requirements, the consumer's right to 'treat a contract as at an end' and information rights. Again, solely or partially code-based SLCs face the biggest challenges while the use of natural language-based SLCs eliminates or greatly reduces issues concerning transparency and information rights, both issues which hinge upon the consumer's ability to understand the nature of the agreement they are entering into. However, 'treating a contract as at and end' is an important consideration regardless of the SLC type being used as it relates back to the prevalence of fatalistic smart contract behaviour in its original use in the DeFi space. The ability for SLC technology to give consumers the right to withdraw or cancel certain types of contracts is closely related to the technology's ability to remedy or rectify SLCs after they have entered into force, further underscoring Hunit's view that SLCs require purpose built technology solutions that allow agreements to be paused, cancelled and interacted-with over the course of their lifecycles.

Jurisdiction

This area of consideration involves the question of SLC jurisdiction. Specifically, there is a concern that in instances where parties have not included a choice-of-court clause in cross-border contracts, determining the jurisdiction in which parties' claims should be heard and adjudicated becomes problematic. Hunit sees no technological barrier preventing the author of an SLC from identifying the choice of jurisdiction in a document intended to be legally enforceable in a court of law. Costly and damaging failures in identifying jurisdiction occur in today's analogue legal documents, but fault is apportioned to the drafting lawyer, not the medium through which the agreement was recorded. In the event that a cross border dispute arises in an SLC that fails to adequately address jurisdiction, use of a technologically enhanced natural language agreement between identified counterparties allows a court to apply the same (or substantially the same) processes for determining the agreement's geographic centre of activity. Similarly, the use of SLC technology is unlikely to impact the so-called 'jurisdiction shopping' that sometimes occurs in international disputes today. However, jurisdictional issues do present a technological hurdle for providers of SLC technology platforms in so much that SLC automation must be structured in accordance with the regulatory framework of the agreement's selected jurisdiction. While many types of SLC automation are universally applicable, some are not. For example, regulations concerning handling of stock options vary from jurisdiction to jurisdiction. In the case that an SLC is used as a shareholder agreement that manages equity share ownership (and, by implication, which must take into account the company's stock option program), a jurisdiction-agnostic SLC platform must offer multiple jurisdiction-specific versions of stock option related contract automation.

Global Impact of SLC Adoption: Insights and Discussion

The World Wide Web has transformed aspects of the human experience that were unexpected at its inception. Hunit believes that the proliferation of SLCs holds potential for sweeping digital transformation and that it is equally difficult to predict the full breadth and impact of their long-term use. Assuming that legal sector specific SLC technology becomes widely available, the following are some of the impacts that Hunit believes it will bring.

Risk and cost reduction

In its public consultation, the Law Commission found that "[a]lmost all consultees emphasised the potential for smart legal contracts to enhance efficiency, provide greater transparency, and reduce enforcement costs"[3]. While specific cost efficiencies related to the procedural fulfilment of an agreement will be dictated by the type of legal instrument and the use of automation by its author, sector stakeholders are broadly in agreement that these efficiencies are sufficiently meaningful to warrant their pursuit. However, less discussed but arguably of equal or greater importance is the ability for SLC technology to mitigate the risk of costly errors or fraud. Recent examples that could been prevented through the use of SLC technology include i) a single data entry error on a payment management terminal at Citibank resulting in inadvertent payment of $900 million[4] or ii) the nearly 150,000 instances annually of so called 'Authorised Push Payment' scams that result in £479 million of yearly losses in the UK alone[5].

Negotiation and counterparty selection

Authoring and negotiating a multi-endpoint SLC (which includes pre-planned remedial actions to be taken by the SLC in the event of specified types of contract breach) allows parties to essentially 'simulate' how their relationship would function if certain adverse events were to occur. The terms a party is willing to agree to in this process provide improved clarity over their ethical principles as well as their confidence in their ability to fulfil the terms of the SLC – before entering into a binding relationship.

Testing legal agreements

Costly and damaging litigation can arise through seemingly insignificant drafting errors in conventional analogue agreements. However, SLC automation provides lawyers new tools to review the quality of the legal document before it enters into effect. For the first time, SLCs allow a lawyer to 'test run' an agreement using emulators and "sandboxes". Unexpected behaviour can be quickly identified and corrected, before it causes damage.

[3] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/

[4] Bloomberg – Citi Can't have its $900 Million Back (2021). Available at: https://www.bloomberg.com/opinion/articles/2021-02-17/citi-can-t-have-its-900-million-back (Accessed: 9 February 2022).

[5] Fraud - The Facts, The Definitive Overview of Payment Industry (2021), UK Finance (available at: https://www.ukfinance.org.uk/system/files/Fraud%20The%20Facts%202021-%20FINAL.pdf (accessed February 7, 2022)

Reduced differentiation between private and public financial markets

The so called 'Alternative Asset' sector of the global finance market constitutes roughly £1 trillion of newly issued analogue, private market investment instruments each year[6]. As analogue investment agreements are replaced by SLCs, this sector will begin to enjoy pervasive benefits of digitalization, including reporting of structured data (instead of PDFs), reduced KYC related costs and risks, reduced friction to secondary trading, lower agreement related operational costs and risks, and multi-endpoint derived reductions of dispute resolution costs and uncertainty.

Increased rates of Foreign Direct Investment

Concerns over poorly functioning judicial systems (as are more often found in developing countries) and the local business cultures that often take advantage of them results in a negative impact on rates of Foreign Direct Investment (FDI). A multi-endpoint SLC (including pre-planned remedies for breaches to key contract covenants) has the ability to meaningfully mitigate specific types of judicial and business culture risk and, as a consequence, alter the risk/reward evolution of a potential international investor. Every 1% of additional investment projects that achieve funding due to SLC-enhanced contract governance results in nearly $70 billion in additional developing country FDI (per annum), a powerful catalyst for reaching the S(society) and G(governance) goals of the United Nations' ESG framework.

Better quantification of risk

When assessing the risk of a counterparty breach of investment agreement covenants, one must additionally consider the cost, time, and uncertainty of using a court or alternative dispute resolution process to enforce one's rights. When a multi-endpoint SLC is used to pre-determine contract outcomes for both the desired case scenario as well as several remedial endpoints (each representing a form of adverse event for the intended SLC outcome), parties are able to perform their risk assessments free from the considerable uncertainty of successful enforcement of contractual rights.

Legal certainty and the reduction of alternative versions of facts

SLCs create an indelible, DLT-based record of events related to its lifecycle. Disputes are often hampered by parties claiming that *their* alternative versions of facts best represent the events leading up to or causing the dispute. In these cases, the dispute resolution process must first determine which, if either, of a competing set of facts is accurate. As the result of this determination may include assessment of facts that only one or neither party recognize as accurate, building consensus between the parties about the cause (and most appropriate resolution to) a dispute is challenging. In an environment where stateful SLCs provide automated, indelible and impartial logs of contractual events, the dispute resolution process can instead focus on the equitable resolution of a dispute rather than attempting to decipher the underlying facts.

[6] A New Decade for Private Markets - McKinsey Global Private Markets Review 2020. Available on https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/mckinsey-global-private-markets-review-2020-v4.ashx (last accessed November 8th, 2021)

Reduced burden on court systems

Multi-endpoint SLCs can potentially reduce the burden on court systems (or indeed any dispute resolution apparatus) in three primary ways.

1) The ability to pre-plan and pre-authorize remedial action helps guide breaches back into compliance without a dispute resolution process. Or, if irresolvable, these remedial actions allow for the execution of steps intended to provide a resolution of last resort. This relieves the court from spending time on issues that are presumably the most likely to result in a dispute; leaving it instead to resolve issues that are less likely to occur, require a more intricate (i.e., 'human') sensibility or deal with issues that are subjective in nature (and unlikely to be subject to contract automation).
2) An SLC can assist an adjudicator in reaching an equitable resolution. With an SLC's more procedural natural language syntax, the potential presence of contract automation (relevant to the dispute) and the SLC's indelible record of events and actions, adjudicators have more data to assess in trying to determine the intention of the parties and the nature of the dispute.
3) A significant portion of the operational burden of a dispute resolution process is the post-resolution follow up – did party A pay the specified amount to party B within the allowed time? Instead of expressing a final ruling or resolution agreement as an analogue instrument, these documents can instead be authored as SLCs themselves where the absolution of liability is rendered only upon the completion of steps that are subject to contract automation. In other words, an SLC-based court ruling will assure that party A paid the specified amount to party B within the allowed time and will indelibly record that the conditions needed to resolve the dispute were met.

Regulatory Clarification Concerning the Use of SLC Automation for the Handling of Client Funds

Part 2 of this document set addresses the use of SLC technology for the purposes of handling what are considered 'client funds' under the regulatory structure maintained by the Solicitors Regulation Authority (SRA).

Context – why client funds are important to the use of SLC technology

SLC technology is capable of automating many of the types of tasks commonly described in legal agreements. Of this array of automation, the handling of payments to and from agreement counterparties is of heightened importance as financial transactions lay at the heart of the majority of legal instruments. Additionally, many types of contractually-governed payments are executed by legal professionals providing 'regulated services' on behalf of or to their clients[7]. Examples of this include handling escrow facilities, receiving cash consideration in corporate transactions, acting as an agent of the client, or as a trustee. As

[7] SRA Accounts Rules (2019). SAR Rule 2.3(b) and (c). Available at: https://www.sra.org.uk/solicitors/standards-regulations/accounts-rules/ (Accessed: 9 February 2022).

these types of payments involve what the SRA defines as 'client money', it is subject to strict regulatory guidance concerning how it is handled on behalf of the client.

The issue that arises is how a novel technology such as SLCs may be interpreted under existing SRA regulations and, as a consequence, how can it be employed by the legal services sector without creating regulatory risk for itself or its clients. Without additional clarity, it is likely that justifiable aversion to risk amongst legal practitioners may limit or stunt the use of SLC technology in applications where its benefits promise significant improvements for all stakeholders.

Summary of the regulatory clarification request

Working with the Regulatory Response Unit of the LawtechUK Sandbox (itself an organ of the LawtechUK Delivery Panel), Hunit was pleased to be able to engage with the SRA in constructive, exploratory dialogue. This discourse pertained to the regulatory dynamics of SLC technology use and supported the company's own efforts to develop the industry guidance presented here.

This guidance is provided by Hunit Ltd. It does not constitute legal advice nor is it binding on solicitors, their clients, the Solicitors Regulation Authority, the Legal Ombudsman, or the Courts. This guidance is for discussion purposes only and is not an exhaustive exploration of the matters discussed. Parties interested in deploying SLC technologies are advised to seek independent legal and regulatory advice.

Key areas of discussion:

A. How would SLC automated payment facilities be viewed vis-à-vis current regulatory categorization?
B. Does SLC automation give rise to additional considerations for solicitors seeking to deploy it on behalf of or to their clients?
C. Are legal service providers able to ethically and compliantly charge for automated handling of actions generally and/or related to automated handling of client funds

Key regulatory considerations for the use of SLC technologies

As explored in Part 1 of this document set, Hunit's experiences have indicated that the use of SLC technology based on natural language terms greatly mitigates the risk of novel agreement structures impacting regulatory compliance. Accordingly, an overarching theme of this guidance is on assuring that clients have a transparent understanding of the terms, conditions, costs and actions of an SLC platform prior to engaging with it for the purposes of recording a binding legal agreement.

a) Regulatory fit of SLC automated payment facilities

Regulatory Considerations: If firms receive money on account before the delivery of an invoice or if money is received by the firm related to the firm's provision of regulated services to the client, the definition of this money as client money is already well established under existing regulations and it must be handled in accordance. However, established alternatives exist to the conventional client

account handling outlined in rules 2.1 and 2.3 of the SRA Accounts Rules (SAR)[8]. One such alternative is the use of Third Party Managed Accounts[9] under rule 11 of the SAR. However, vigilance over how client account facilities are used is recommended to assure that they do not become a banking facility where movements into and out of client account services are inadequately linked with the payment of solicitor's fees or the supply of regulated services (as currently described in rule 3.3 of the SAR)[10]. Finally, one must also consider that existing regulations do exempt solicitors from the SAR for payments that are made directly to the client and are not handled by the solicitor's firm.

Discussion: While the SAR underlines that client money must be handled in strict accordance with existing regulatory guidance, it also illuminates two related paths to providing compliant SLC automated payment handling to clients. Firstly, an SLC platform may obtain the regulatory approvals needed to become a provider of Third Party Managed Account services, relieving the solicitor of liability for handling of client money as "Money held in a Third Party Managed Account does not fall under the definition of client money in the SRA Accounts Rules as it is not held or received by [the solicitor]. As such it does not have to be held in accordance with [the SRA's] rules relating to the holding of client money."[11] This approach has the additional benefit of mitigating the risk of falling afoul of rule 3.3 of the SAR (improper use of a client account as a banking facility). As the regulatory requirements for offering a Third Party Managed Account include an approval to operate as an Authorised Payment Institution (which is needed to facilitate payments between parties for non-regulated services), a so-licensed SLC platform may alternatively offer Third Party Managed Account and Authorised Payment Institution services to both the solicitor and the client using a single technology platform. This may prove to insulate the solicitor from liability by being deemed to provide Authorised Payment Institution based services (for non regulated services) directly to the client (rather than via the solicitor's firm).

b) Additional considerations for solicitors seeking to deploy SLC technology

Regulatory Considerations: Additional review of published SRA regulatory texts highlighted five key principles that all solicitors should keep in mind when using SLC technology to support the supply of regulated services.

1. Solicitors must act in their clients' best interests, and they must provide a competent service. Ultimately it is for each firm to consider whether this product is suitable for their clients. This would entail that firms understand the operation of the SLC, and that they ensure that the client understands this too. Under existing regulations, solicitors' firms remain accountable for compliance with SRA rules even when their work is carried out through others (paragraph 2.3

[8] SRA Accounts Rules (2019). Available at: https://www.sra.org.uk/solicitors/standards-regulations/accounts-rules/ (Accessed: 9 February 2022).
[9] Third party managed accounts - Guidance (2019). Available at: https://www.sra.org.uk/solicitors/guidance/third-party-managed-accounts/ (Accessed: 9 February 2022).
[10] Improper use of client account as a banking facility - Warning notice (2019). Available at: https://www.sra.org.uk/solicitors/guidance/improper-client-account-banking-facility/ (Accessed: 9 February 2022).
[11] Third party managed accounts - Guidance (2019). Available at: https://www.sra.org.uk/solicitors/guidance/third-party-managed-accounts/ (Accessed: 9 February 2022).

SRA Code of Conduct for Firms[12]). Therefore, firms should presume that they will be accountable for the service provided by the SLC during the firm's retainer with their client.

2. Insurance. It is compulsory that solicitors' firms obtain adequate insurance to cover the work that arises from the firms' private legal practice. Solicitors should consider how the use of SLC technology impacts their insurance coverage and make arrangements to assure continued compliance with existing regulations in this area.
3. Money Laundering Regulations. Firms have an existing obligation to comply with The Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (as amended) including carrying out adequate customer due diligence and ongoing monitoring. Firms should consider whether their use of SLC technology allows for their continued compliance with these requirements.
4. Client confidentiality. Solicitors shall evaluate if the use of a particular SLC or SLC technology will result in client information being shared with third parties (as addressed in paragraph 6.3 of the SRA Code of Conduct[13]) or being handled in contravention to UK laws concerning personal data handling. If determined by the solicitor to be required, clients must give informed consent for the methods or structure of handling their personal data.
5. Court remedies. If an SLC or its technology platform disallows court remedies in certain situations, the solicitor must be satisfied that it is not contrary to English law.

Discussion: The regulatory texts informing these key additional considerations are central pillars of the practice of law in the UK and do not contain exceptions for novel technologies. Accordingly, the use of SLCs must be capable of compliance with today's regulatory framework without modification. Keeping these considerations in mind contributes to the legal services industry's evaluation of how it i) selects the most appropriate SLC technology, ii) offers services to clients based upon it, and iii) addresses the risks of using this innovative contracting medium.

c) Passing on of SLC costs to clients.

Regulatory Considerations: Evaluation of existing regulatory guidelines did not identify impediments to solicitors passing on SLC technology related costs to clients as long as solicitors are clear and transparent about the nature of the costs related to use of SLC technologies, the terms upon which SLC automation is rendered, and assure that their clients understand these elements in advance.

Discussion: In its series of focus group interviews, Hunit found that technology-based services are increasingly forming a portion of overall legal deliverables to clients. A cited example was the turnkey delivery of a business-to-consumer contract management platform pre-populated with the legal agreement templates needed by the client. As the benefits of adopting new technologies proliferate, the gain in efficiencies through automation and reduction in risk has been passed onto clients by the

[12] SRA Code of Conduct for Firms (2022). Available at: https://www.sra.org.uk/solicitors/standards-regulations/code-conduct-firms/ (Accessed: 9 February 2022).
[13] Ibid.

firms that service them[14]. Firms are also becoming increasingly comfortable in interacting with technology on behalf of their clients and of passing on the cost of these technologies to them – promising a similar approach to the uptake and use of SLC platforms

Conclusion of Hunit's regulatory response process

Hunit's guidance for the compliant use of SLC technologies is based on the overarching view that the use of SLC technologies is not differentiated from other technological enhancements. Existing ethical and regulatory principles persist into this new contracting medium. Solicitors using SLCs must ensure in all cases that they are acting in the best interests of their clients, determining whether the use of the SLC is suitable for their clients, ensuring they understand the operation of the SLC and that their clients understand this too.

Use Case Analysis of an SLC-Based Escrow Agreement

Preparation and disclaimer: The preparation, review and analysis of this specific use case has been carried out with the intention to comply with the legal and regulatory principles identified in Parts 1 and 2 of this document set. However, the guidance, concepts, diagrams and texts contained does not constitute legal advice, is not an exhaustive exploration of the matters discussed, nor is it claimed to represent a fully compliant application of SLC technology.

The concepts and texts of this use case analysis are intended to serve as a basis for discussion only. Parties interested in deploying SLC technologies are advised to seek independent legal and regulatory advice.

Regulatory Considerations: Key additional factors related to the application of SLC technology in this use case:

- As underscored in Part 2 above, it is important that clients understand in advance that certain steps in the execution of the use case will proceed automatically.
- One must consider whether a particular SLC is carrying out reserved legal activities without human supervision and if said automation is allowable under the Legal Services Act 2007. If so, the SLC author may consider the use of human review and approval steps in the execution of certain types of automation.
- Anyone providing human review for semi-automated reserved activity must be an authorised person for the service in question or their involvement needs to be such as to fall within the exemptions identified in Schedule 3 of the Legal Services Act 2007.

Discussion: In its focus group interviews and in dialogue with its LawtechUK advisory panel, Hunit found a justifiable reluctance to place contractually significant actions or tasks into fully automated technical

[14] Legal tech in 2018 threats and opportunities, Lawsociety.org.uk (2018). Available at: https://www.lawsociety.org.uk/en/topics/blogs/legal-tech-2018-threats-and-opportunities (Accessed: 9 February 2022)

frameworks. These findings support SLC drafting practices that use well-crafted verification steps to provide efficient and predictable controls over automated SLC activity by appropriate parties. This use case example incorporates such steps at each juncture and, in so doing, places the final outcome of the escrow facility firmly in the control of the Buyer, Seller and Escrow Agent.

The final portion of the assessment of the practical application of Smart Legal Contract technology contains an investigation of how an SLC can be used for the purpose of providing an escrow facility for the purchase and sale of a commercial vessel.

The escrow agreement detailed in this use case is made between three parties: buyer, seller, and escrow agent. While the SLC's automation renders the role of the escrow agent obsolete from the perspective of the simple management of the escrow steps, the role remains critical for the execution of this type of escrow facility. An SLC, for example, would not be able to determine when a final, unappealable ruling had been issued in response to a dispute that had arisen. Additionally, documentation specified under the conditions precedent for the release of funds may be delivered in any number of formats by external parties. The world at large is not (yet) fully interconnected via structured data and the subjective ability for a human to determine when and if certain events have occurred is indispensable. Additionally, the removal of the escrow agent raises the important, and as yet unresolved, question of liability in the event of mis-execution of the escrow facility. So, while the escrow agent is relieved of the management of simple executorial tasks, the role remains central to the ability of the SLC to perform its intended function.

The use case analysis has been divided into 3 sections, each explaining a distinct layer of the overall use of an SLC in this application. Due to its extensive use of diagrams and its inclusion of the entire, unabridged text of the example SLC, the reader is recommended to review the original, non-summarized sections below.

Section	Contents	Goal
SLC Diagram: Objects ***Page: 52***	Overview of the network systems, features and objects needed for the escrow agreement SLC to function as described	Explain the technical ecosystem that make the SLC possible
SLC Diagram: Logic ***Page: 53***	Function-by-function schematic descriptions of the logic embedded in the escrow agreement SLC	Explain how the SLC automation functions
SLC Text ***Page: 59***	The complete natural language version of the SLC based escrow agreement with graphical depictions and annotations of how automation is inserted	Demonstrate how SLC automation is inserted into natural language text

Summary of the Application of SLC Technology in an Escrow Agreement

The full text of the example SLC escrow agreement and its accompanying flow diagrams demonstrate the continued importance of human input to SLCs. While Hunit's series of customer focus groups uncovered a generalised expectation that SLC technology would fully technify the execution of all or mostly all contractual actions, Hunit found that this was largely based on a misplaced understanding of smart contract technology, rather smart *legal* contract technology.

In practice, a fully compliant application of SLC technology makes ample use of human input, where the technology instead serves to inform, facilitate, and structure human input to the completion of the agreement. Or, in other words, SLC technology structures human input so as to accentuate its benefits and minimise its associated risks. This is furthermore in line with regulatory guidance developed for Part 2 of this document set in that it underscores the importance of human oversight in the provision of regulated services (such as providing an escrow facility).

In the example SLC escrow agreement, human interaction is used to determine:

a) When the conditions precedent to the transfer of the escrowed sum have been satisfied
b) If the buyer and seller mutually agree to waive the conditions precedent
c) When the transaction closes, any adjustments to the final sales price of the vessel related to the inspections carried out as part of the conditions precedent
d) If a final adjudication has been issued regarding any dispute that may arise related to the transaction and payment of the sums in accordance
e) If the buyer or seller can assign their interest in the agreement to a third party
f) If the SLC is incorrectly executing its terms and requires rectification

The continued importance of human input can be extrapolated into other types of legal instruments recorded on SLC technologies. The automated execution of punitive remedies, for example, may be configured to require the approval of the non-penalized party. Contractually important events, such as the reporting of performance data automatically collected by the SLC's automation, may be configured to require the approval of the reporting party – as may also be the case for actions such as the disbursement of automatically calculated payments.

Through the use case example, Hunit demonstrates a model for the practical and compliant digitalization of legal instruments that, instead of attempting to eliminate the role of human input, serves to maximise its efficient use. The human mind is as yet indispensable to the safe, efficient and compliant execution of legal agreements. It's intellectual flexibility and ability to decipher complex and novel situations has no parallel within the technical sphere. By basing an SLC's enforceability on the legal authority of the courts (rather than on code), SLC technology is able to harness the power of the human intellect in ways that are unavailable to smart contracts and, by extension, the decentralised financial sector. Legally accountable human input allows SLCs to simultaneously serve as indelible, trustworthy and self-executing records of legal obligations that can nevertheless be paused, amended, multi-outcomed, and rectified. The ability to

use technology to leverage the human intellect provides a path towards pervasive use of SLC technology across all or nearly all types of legal instruments.

In culmination, Hunit is certain that legal contracting will be transformed through the use of SLC technologies. A path towards the legally compliant use of SLC technology has been signposted by key stakeholders such as the Ministry of Justice and the benefits of this transition are highly compelling for both providers of legal services and their clients. This digital transformation promises to bring profound changes to how legally binding relationships are managed, unlocking possibilities that are unavailable to today's static, analogue agreement formats.

INTRODUCTION

The advent of so called Smart Legal Contracts ("SLCs"), which have the capability of expressing and automatically performing contractual obligations using digital systems, has caused both excitement and trepidation in legal research and practice. This dichotomous view is a result of the recognition of the potentially ground-breaking contribution of SLCs in terms of increased efficiency, lower enforcement costs, reduced risk of fraud and other potential boons, tempered with concerns around the compatibility of SLCs with established legal frameworks and the risks that may arise due to their use. More specifically, the nascent and the developing nature of blockchain and distributed ledger technology (DLT) underpinning SLCs presents novel challenges that are currently being examined by sector stakeholders such as universities, law firms, private enterprises, and governmental bodies.

Recognising the need to arrive at a common understanding of the legal considerations surrounding smart legal contracts, and building on the UK Jurisdictional Taskforce's (UKJT) 'Legal Statement on Crypto Assets and Smart Contracts' (available here), the UK Law Commission launched a scoping study in 2020 to examine how current law applies to smart legal contracts and to identify areas which may require further work or possible future reform. The results of the Law Commission study were published in a report on November 25th, 2021 (available here) and concluded, in general terms, that English and Welsh law supports and is compatible with SLCs. However, this milestone report does underscore that compatibility is subject to the nature of the SLC technology implementation in so much that SLCs must include features that accommodate key aspects of the jurisdiction's legal framework relating to the formation, interpretation, remedies, consumer protection and jurisdictional considerations of SLCs.

This work by the Law Commission was performed as a complement to a broader set of programmes supported by the Ministry of Justice through its LegalUK and LawtechUK initiatives. LegalUK, founded by the Lord Chief Justice in 2017 for the purpose of promoting English law (as an international platform, the governing law of choice for international business, and a national asset), commissioned a study of the jurisdiction's economic value both to the UK and globally. This report, published on October 5th, 2021 (available here), found that English law underpinned approximately £250bn of global mergers and acquisitions, 40% of global corporate arbitrations and, in sectors such as metals trading, governed transactions measured in the £ trillions per annum. Separate research published on January 23rd, 2020 by the Law Society (available here) has quantified the impact of the global importance of English law upon the UK economy as having resulted in the export of £5bn+ of legal services per annum (in addition to ancillary services that may have accompanied the use of British legal services). The conclusion of the LegalUK report, as further supported by external research, is that English law and the English and Welsh jurisdiction are valuable national assets worthy of continued investment to assure that they retain and increase their relevance in a rapidly developing global environment for law and legal innovation.

The UKJT was formed under the Lawtech Delivery Panel, now LawtechUK, with the objective of demonstrating that English and Welsh law and the UK jurisdiction together provide a state-of-the-art foundation for technology globally, including the development and use of DLT, SLCs and associated technologies. Underscoring the importance of the UKJT, LegalUK, the Lawtech Sandbox and the other

supportive programs of the LawtechUK, Sir Geoffrey Vos (current Master of the Rolls) stated in 2019 that he "…would expect English law and UK dispute resolution to prove a popular foundation for the trillions of smart legal contracts that we may then expect to be entered into annually."[15]

This document package seeks to supplement this ecosystem of stakeholder initiatives by exploring practical, industry-informed approaches to applying SLC technology in a manner that is compatible with today's legal and regulatory frameworks. Although efforts have been made to derive generalised insights and advice, this work has been prepared by and based on the views, encounters and experiences of Hunit Ltd. a British legal technology company. Hunit has developed a dedicated DLT-based infrastructure for SLCs and software as a service (SaaS) tools that enable the legal profession to author them with no technology training.

It contains 3 document sections:

Title	Description
Part 1. Practical approaches to resolving structural challenges to the use of SLC technology under English law	Whitepaper summarising the key challenges to the use of SLCs as identified by the UK Law Commission, Hunit's guidance on practical approaches to resolving them and permitting the use of SLC technology in today's legal sector, and a contemplation of the potential impact that the use of SLC technology may bring to the general users of legal services.
Part 2. Regulatory clarification concerning the use of SLC automation for the handling of client funds	Summary of a regulatory clarification process performed in cooperation with the Solicitors Regulation Authority concerning the use of automated, SLC controlled banking in replacement of regulated Client Accounts.
Part 3. Use case analysis of an SLC-based escrow agreement for the sale of a commercial vessel	Three-part, detailed analysis of the use of an SLC-based escrow agreement for the purchase of a commercial vessel. Including: diagram and discussion of the requisite SLC technical ecosystem, diagrams and discussion of embedded SLC automation, and the full, annotated natural language SLC escrow agreement.

[15] Trillions of Smart Legal Contracts May Be Expected Says Senior Judge (2022). Available at: https://www.trustnodes.com/2019/05/06/trillions-of-smart-legal-contracts-may-be-expect-says-senior-judge (Accessed: 28 January 2022).

PART 1. PRACTICAL APPROACHES TO RESOLVING STRUCTURAL CHALLENGES TO THE USE OF SLC TECHNOLOGY UNDER ENGLISH LAW

1. Background

1.1. Smart Contracts are not Smart Legal Contracts

Initially coined by Nick Szabo (1996), the term "smart contracts", in its simplest form, refers to a set of actionable promises made between parties that are expressed in self-executing computer code, usually implemented on a computer network, or in other forms of digital electronics. While the term may have been first used in the early 1990s, it was greatly popularised by a computer scientist and cryptographic researcher, Vitalik Buterin, following his 2014 launch of the Ethereum distributed ledger protocol[16]. His innovation, which has driven the subsequent popularity of the Ethereum technical ecosystem, was the creation of a distributed computing environment where computer code can be executed outside the control of any single party[17]. This capability has been a driver of the Ethereum environment's nearly total domination of the so called 'decentralised finance' sector[18], where 'smart contracts' are most often used as a means of reducing or eliminating counterparty risk in transactions between pseudo-anonymous actors.

Despite the use of the term "contract", this form of self-executing computer code typically does not satisfy or intend to satisfy the legal requirements for the establishment of a legally binding obligation and therefore has no or limited standing under law, a distinction made by Blycha and Garside[19] (2021). However, they are critical to the function of the quickly growing decentralised finance sector where they can adequately serve the sector's (current) needs without the additional benefit of being

Smart Contracts	Smart *Legal* Contracts
Purpose: mitigate counterparty risk in pseudo-anonymous transactions	Purpose: create counterparty-neutral contract automation embedded in the legal agreement itself
SCs cannot be altered once set in motion	SLCs can be altered after entering into effect
Code is the adjudicator of last resort	Law is the adjudicator of last resort
Cannot be paused or rectified	Can be paused or rectified
Intended to be used in DeFi	Intended to be used in the legal sector

[16] Code your own utopia: Meet Ethereum, bitcoin's most ambitious successor (2014). Available at: http://america.aljazeera.com/articles/2014/4/7/code-your-own-utopiameetethereumbitcoinasmostambitioussuccessor.html (Accessed: 7 February 2022).
[17] Introduction to Smart Contracts — Solidity 0.4.24 documentation (2022). Available at: https://docs.soliditylang.org/en/v0.4.24/introduction-to-smart-contracts.html (Accessed: 7 February 2022).
[18] Ethereum's dominance in decentralised finance 'far from given', JPMorgan says (2022). Available at: https://www.theedgemarkets.com/article/ethereums-dominance-decentralised-finance-far-given-jpmorgan-says (Accessed: 7 February 2022).
[19] 'Smart Legal Contracts: A Model for the Integration of Machine Capabilities Into Contracts' Blycha N and Garside A (2020) https://ssrn.com/abstract=3743932

unambiguously enforceable under law.

Nevertheless, the use of the term 'contract' has proven to be confusing to many stakeholders and observers. Acknowledging this confusion, Buterin expressed regret in 2018 that he had not used a more technical description such as 'persistent scripts'[20] to describe them.

To be unambiguous, this document is solely concerned with Smart Legal Contracts (SLCs). SLC are 'computer programs that record and perform the obligations of a legally binding contract'[21] and, as a consequence, employ technologies and include features that are differentiated from 'smart contracts'. The purpose of this document is to further explore the nature of these technologies and features with the intention of providing practical guidance as to how the benefits of natively digital, self-executing legal agreements may be practically offered to the legal services sector while maintaining full compliance with the legal and regulatory frameworks in which it operates.

1.2. Distributed Ledger Technology

To resolve the risk of ex-post-ante tampering of an SLC and to enable a fully bilateral relationship between the contractual parties (absent of a trusted central party), SLCs are most associated with multi-site computer networks based on Distributed Ledger Technology (DLT). At a fundamental level, DLT computer networks are based on each participant in the network (node) maintaining a full and continually updated copy of the entire ledger of data in that computer network. While various methods of confirming the ongoing validity of the ledger are currently used, these so-called consensus mechanisms automatically resolve discrepancies between different copies of the ledger and create a data record that is, absent specific conditions, challenging or impossible to surreptitiously modify. This resistance to tampering makes DLT an ideal environment for mutually suspicious parties to securely interact between one another without the need for a central, trusted counterparty.

While often used interchangeably with DLT, the term 'blockchain' describes a sub-type of DLT in which ongoing activity on the network is recorded in time-stamped 'blocks' of data that also include a cryptographic reference, called a hash, to the immediately preceding block. A hash is typically expressed as an alphanumeric key that is determined by running a cryptographic algorithm on a set of data. If the underlying data are unchanged, the hash key returned by algorithm will be identical each time it is run, allowing the network to determine if any part of the hashed data has been modified since last verification. Importantly, this process occurs without needing knowledge of what the hashed data contains as hash algorithms work equally well on public or encrypted data and do not require the latter to be decrypted for it to function.

By including a hash key for the immediately preceding block of data, the resulting 'chain' of inter-block references assure that any attempt to modify a previous block results in a cascade of altered hash key

[20] Untitled tweet (2018). Available at: https://twitter.com/vitalikbuterin/status/1051160932699770882?lang=en (Accessed: 7 February 2022)
[21] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/

values for all subsequent blocks in the blockchain, allowing the network's consensus protocols to quickly identify and invalidate tampered or corrupted versions of the shared data ledger.

1.3. Hunit

Hunit is a technology company offering the legal sector a use-case agnostic platform for the creation and use of DLT-based smart legal contracts written directly in Microsoft Word. It's offering allows any law office, financial group or enterprise to create and use SLCs and is comprised of:

- A DLT network where the integrity of each agreement is guaranteed by nodes representing law offices, financial services, and enterprise users
- MS Word based authoring tools, allowing any legal professional to create dynamic, intelligent agreements in natural language directly in a .DOCX file
- 'Ecosystem services' that SLCs use to perform tasks in and collect information from the external world (banking system integration, polling systems, compliance systems, etc.)
- User apps and portals that allow agreement participants to onboard (KYC), review, sign and monitor the state of legally binding agreements

Hunit is supported by the UK Ministry of Justice's LawtechUK, Microsoft for Startup's Scale-Up accelerator, the UK Department for International Trade's Global Entrepreneur Program, the University of Birmingham's Centre for Responsible Business and participates in the British Standards Institute's working group on the development of standards for the use of SLCs.

1.4. Taxonomy and types of SLCs

The taxonomy and definition of SLCs is a key determinant of the types of legal concerns the SLC is likely to raise. In its report, the Law Commission identified three different forms that SLCs can take. The first of these are natural language contracts in which the performance of some or all of the contractual obligations are automated by a piece of code deployed on a distributed ledger. The second form is a hybrid smart contract. This is a combination of code and natural language, for example where the terms of the contract are primarily written in code with natural language employed to add certain provisions, or when a contract is primarily written in natural language with one or two provisions written in code. The third category is a solely code contract where no natural language version of the agreement exists. Instead, the parties agree to the code, and it executes on a distributed ledger or alternatively, one party does all the coding and makes the program available so that anyone with access to the distributed ledger can run it.

1.5. Key issues in determining SLC compatibility under English law

In its public consultation and subsequent publication, the Law Commission identified five key issues of legal and regulatory concern in the development of SLCs. These areas of concern each contain legal and regulatory issues that can, depending on the specific technologies used by an SLC, render that particular SLC compatible or incompatible with English law.

In addition, the Law Commission further explored how differences in the technological delivery of the SLC itself (code based, natural language or hybrids) may influence how it achieves compatibility with existing legal and regulatory frameworks in each of these areas of concern.

Formation of binding legal agreements

The first key consideration identified by the Law Commission pertains to the formation of SLCs. Here, the focus is on the extent to which smart legal contracts raise any uncertainties in applying the requirements for the formation of a legally binding contract including agreement, consideration, certainty and completeness, intention to create legal relations and complicate with formalities[22].

This concern relates primarily to instances in which the SLC is not preceded by natural language communications between parties. Where no negotiations or other correspondence are recorded to allow for the identification of an agreement, questions around *whether or not solely deploying or interacting with code on a distributed ledger can give rise to an agreement* are raised[23]. As such, intention to create legal relations is more easily identifiable in natural language with automated performance and in hybrid SLCs as opposed to solely code SLCs.

The final consideration with the formation of SLCs has to do with the legal concerns that may arise in instances where some statutes that require certain contracts, for example deeds, to be made 'in writing' or 'signed'. As with the above, SLCs with a natural language component are inherently better positioned to satisfy this requirement. Signing of SLCs, where required, generally presents no legal obstacles due to the fact that parties can sign conventionally on SLCs with a natural language component and using digital signatures which are currently capable of satisfying a statutory requirement for a signature. The only challenging instance in this case has to do with deeds which must be signed in the presence of a witness who attests to the signature as the law as it stands 'does not support witnessing other than by the witness being physically present when a deed is signed'[24].

Interpretation

The second key consideration identified by the Law Commission regards interpretation. In instances where a dispute arises and parties disagree as to whether or not a breach of the contract has occurred, a court may be asked to interpret the contract. Contractual interpretation is 'the process by which a court determines the meaning of the language used by parties in the express terms of a written agreement.'[25] As is the case regarding formation, where the SLC takes the form of a natural language contract, the Law Commission notes that interpretation issues are less likely to arise as the natural language contract will be treated as containing the terms agreed upon by the parties. The challenges therefore lie where courts might be tasked with interpreting computer code (in either solely code or hybrid SLCs). It was also observed that this could come in the form of considering the extent to which the code correctly implements the terms of

[22] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/
[23] Ibid.
[24] Ibid.
[25] Ibid.

the natural language agreement. It could also involve more esoteric issues to do with using what the code means to the computer as a basis for interpretation, bringing up challenges of considering context and assessing the alignment between the intentions of the party and output of the code.

Remedies

The third key consideration identified by the Law Commission studied how use of SLC technology may impact the remedies that parties might seek and how a court might award those remedies should problems arise. The first concern raised by the Law Commission regarded rectification. With natural language contracts, a court may be approached to rectify a written contract if the terms of the contract do not accurately record the parties' agreement. However, the concern exists that an SLC recorded on a distributed ledger might not allow for rectification and amendment in a similar manner. Similarly, if any error is discovered only after the code has been executed, remedy by rectification would not be possible retroactively. In this instance, the contract may be made void due to the vitiating factors that render the contract defective and the court may award remedies to restore the parties to their pre-contract conditions.

What has been deemed more relevant however, are the restitutionary remedies available to SLCs. Unlike traditional contracts where parties are able to cease performing the contract where it has been found to be void or voidable, the terms in DLT-based SLCs may be subject to automation performance. Of note is the instance of breach in contract and court-based processes that may be initiated by a party to enforce its rights under an SLC. The concern exists that, depending on the type of DLT and SLC technology used, there may be inadequate mechanisms in place to stop the execution of the code and allow for the application of remedies as currently available under law.

Consumer protection

The fourth key consideration identified by the Law Commission concerns the interaction between SLCs and existing consumer law protections. Here, the focus has been placed on three broadly defined categories, namely: transparency and fairness requirements, the consumer's right to treat a contract as at an end and information rights.

The issue of *transparency and fairness* rises to the fore primarily in the context of business to consumer interactions. Here, 'consumers may be required to agree to a trader's standard terms and conditions without understanding some or any of what they are asked to agree to because they are not code literate'[26]. In this instance, the trader may have to consider further steps to comply with statutory requirements to ensure that the terms of the consumer contract are transparent. This principle is further embedded in statutory requirements concerning *information rights*, where traders are required to set out in advance to the consumer entering into the contract 'the key terms in a clear and comprehensible way'[27]. A more ambiguous area regarding consumers and smart contracts has to do with the *consumer's right to treat a contract as at an end*. This provides consumers with 'the right to withdraw an offer or cancel certain

[26] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/
[27] Ibid.

distance contracts without giving any reason to receive a reimbursement by the trader'[28]. A failure of SLC technology to adequately address these issues in its practical use risks rendering that agreement incompatible under legal and regulatory principles.

Jurisdiction

The final key consideration examined by the Law Commission involves the question of SLC jurisdiction. Specifically, there is a concern that in instances where parties have not included a choice-of-court clause in cross-border contracts, determining the jurisdiction in which parties' claims should be heard and adjudicated becomes problematic. In this instance, the Law Commission draws on the rules of private international law to determine which national court has jurisdiction in cross-border SLCs. Here, the first of factors connecting smart legal contracts to a particular jurisdiction is the domicile and presence of contracting parties. Determining the physical location of contracting parties is made difficult in instances where the DLT system in use allows for pseudonymity with parties and counterparties to an SLC not knowing each other's real identities. Secondly, determining the moment when the acceptance of an offer is made is 'more challenging in a smart contract context where there is little or no natural language interaction between parties' or 'where computer programs interaction autonomously on a distributed ledger form a smart contract'[29]. Where the circumstances of contract formation and the domicile of contracting parties cannot be determined, the choice of jurisdiction can be determined by identifying legal connections, such as the place of contractual performance, the place of acts giving rise to a liability to make restitution or the place of enrichment[30]. However, making these connections and identifying geographical locations is difficult in public, permissionless distributed ledger systems.

[28] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/
[29] Ibid.
[30] Ibid.

2. Practical Guidance on Compliant use of SLC Technology

The five key issues identified by the Law Commission are of significant value to practitioners seeking to offer or use SLC technology. They provide guidance as to the key statutory or regulatory obligations that an SLC contracting platform must, from a feature perspective, accommodate for the purposes of creating natively digital, (partially or fully) self-executing legal agreements which are fully compliant under English law.

Using the Law Commission's five key issues as its guide, Segment 2 of this whitepaper describes Hunit's approach to the practical application of SLC technology to binding legal instruments. It further describes the company's rational for its key technology decisions and how, in the company's view, these technology decisions result in a fully compliant smart legal contracting capability that is both useful and applicable to today's legal services sector.

2.1. Taxonomy and types of Smart Legal Contracts

The Law Commission makes a distinction between smart contracts which are natural language contracts with performance automated by code, hybrid contracts consisting of natural language and coded terms, and smart contracts which are written solely in code. Hunit's smart contract platform and service falls into the first category where the emphasis is placed on the automation of common contractual conditions such as payment terms within what is otherwise a conventionally described, natural language legal document.

To differentiate between a smart contract and smart legal contract, Hunit's technology approach has been to enable drop-in automation within a natural language legal instrument. These instruments retain the constituent elements required to establish a binding relationship between their counterparties and use DLT as an indelible record of a) the existence and natural language terms of the agreement; b) the technical environment in which an agreement's various computational elements complete their intended tasks; and c) a tamper-proof repository of data related to the entering into and completion of the agreement.

Hunit's natural-language centric approach was also informed by a series of focus group interviews that it held with law firms, in-house counsel, and other legal stakeholders (such as asset managers) across six countries internationally. The company reports that these focus groups uncovered deep-rooted challenges in a profession historically based on the meticulous use of natural language to the use of explicitly described computer code where the code syntax (which is the set of rules that define the structure of the code) is itself subject to a legally binding agreement. Specifically, these challenges included a broad lack of appropriate technical skills amongst legal practitioners, the difficulty of achieving transparency about agreement terms in the mind of the layman client, and unknowns over the judicial system's handling of novel agreement elements (or, in the case of code only SLCs, novel agreement structures).

In practice, a natural-language centric hybrid approach mitigates a number of potential adoption risks. By focusing the use of SLC technology away from an agreement on the specific syntax of its technological elements towards an agreement on the desired outcomes of the use of technology, legal practitioners, clients, courts, mediators and arbitrators are relieved from having to interpret and understand the underlying code in order to understand the full context of the agreement being entered into. Instead, these

stakeholders can form a complete understanding of the binding agreement based on the intended outcome of computational automation. When paired with an explicit description of precedence in favour of the natural language text, this approach to SLC construction essentially amounts to an agreement between parties to use a technological aid to improve contract compliance, a practice already generally established in commercial law.

This approach does introduce the possibility of inconsistencies between the natural language text of the legal instrument and the configuration of its computational automation. Hunit's customer focus groups found that legal practitioners believed that this risk can be adequately controlled by the availability of SLC auditing tools such as a 'sandbox' where an authoring or reviewing lawyer (or indeed a so inclined party to the agreement) would be able to test the outcome of draft SLC automation for comparison to the natural language text. However, should faulty automation not be detected prior to entering into effect, the company found that legal practitioners believed that the ability to rectify contract automation was a desirable compliment to robust pre-signature testing tools, a position strongly reinforced by the Law Commission's findings on the importance of this capability in determining SLC compliance with English law. Section 2.4 below and the SLC Use Case Analysis constituting Part 3 of this document further describe practical means for using these types of tools to allow an agreement's self-execution to be paused and corrected after it has entered into effect.

The use of explicit code syntax in an SLC is unnecessary and undesirable

Hunit reports that its market research also identified potential challenges in the sophistication of the hybrid or code based SLCs where the code syntax is explicitly included in the legally binding agreement. If explicit code syntax is insisted upon, and the computational needs are relatively sophisticated, one risks ending up with tens or hundreds of pages of code syntax to review. Compounding the challenge, this review must be done at a sufficiently meticulous level to eliminate a scenario where misinterpreted but legally binding code may (intentionally or not) unduly favour one party's interests over another. Coding errors frequently occur in the technology sector in general, despite the substantial quality assurance efforts that it makes. While the more focused application to technology may help the legal sector achieve a higher level of quality assurance success, one must expect that long and complex SLC code syntax will occasionally result in unidentified errors entering into binding force. This would open up the possibility for contentious or challenging rectifications following such an error becoming known (presumably through its miss-execution of contract terms). If increases in code syntax complexity are perceived to increase the risk that a party is signing an agreement that a) they don't fully understand and; b) may contain errors, Hunit has expressed its concern that the sophistication of the features SLCs attempt to include will be stunted.

In Hunit's view, its focus on agreeing on outcomes rather than code syntax represents an evolution of what occurs in either a full code or hybrid SLC. In either of these types of SLCs, the large majority of their computational capacity resides in the distributed ledger network in which they operate. For example, SLCs intended to run on the Ethereum blockchain do not include a full copy of Ethereum's source code. Even when the executable 'chain code' is the subject of explicit binding agreement, the parties agree (implicitly or explicitly) to use the underlying Ethereum blockchain and its features as a single functional entity. In so

doing, code or hybrid SLCs are exposed to the underlying risk that the Ethereum network may suffer an error that results in a correctly authored SLC malfunctioning or suffering a security breach, which are primary justifications for using explicit code syntax. While agreeing to use the Ethereum network as a single functional entity is understandable in its practicality, it undermines the ability of explicit code syntax to provide SLC counterparties with full transparency of the technical and legal matters influencing the execution of the SLC. Based on these factors, Hunit has concluded that the use of explicit code syntax in an SLC is unnecessary and undesirable as a) it does not reduce the SLCs reliance on external technical systems outside the direct control of the SLCs counterparties; b) forces substantial adoption chain demands on the legal sector, and c) presents unnecessary novelty for dispute resolution procedures.

As a final consideration, Hunit examined the question of SLC format vis-à-vis the type of content it contains. In reviewing a variety of legal instrument types (shareholder agreements, loan agreements, investment offering documents and certificates of origin), Hunit found that the preponderance of data that the agreement contained offered few or no opportunities for computational enhancement. These included broad sections of declarations, acknowledgements and other types of so called 'boiler plate' terms. In the company's own 58-page shareholder agreement, only 27 clauses were of the nature where computational automation was possible and desirable. While the remainder of the instrument did not lend itself to automation, these sections are of critical importance for the performance of the agreement under law. Presumably any SLC, regardless of its format, will need to address substantially all these same topics if it is to serve as a comprehensive agreement that operates in line with the principles of commercial law as they exist today. This leaves the scenario where as much as 80% of an SLC is comprised of static sections that are legally important yet offer no automatable instructions for the execution of the agreement itself. In the case of full code SLCs, these static sections may be expressed as natural text encapsulated in a code-based instrument or represented in a novel manner using syntax that compliments the programmatic syntax of the overall SLC. In Hunit's conclusion however, these are unnecessary complications that would only further distance the practice of law from being something easily understandable by all the sector's stakeholders.

2.2. Formation

As more thoroughly discussed in section 2.1, Hunit's choice of natural language SLC construction is in large part informed by the need for SLCs to be unambiguously legally binding and enforceable. While regulatory treatment of SLCs will continue to evolve as the sector adapts to a fully digital future, the users of SLCs and the purpose for which SLCs are used has extremely little (or no) tolerance for so called 'grey areas'. For the time being, that means that SLCs deployed in the near term must fully comply with existing legal and judicial principles for what constitutes a binding and enforceable legal instrument.

By relying upon a natural language SLC in line with conventional legal instruments in use today, Hunit's SLC technology facilitates arriving at legal agreements that are unambiguously binding and enforceable. In this instance, the process of negotiating an agreement would be largely unchanged, review and signature processes would be the same as one finds in today's use of digital signatures and the terms and conditions

contained in the natural language text of the SLC may use the same conventions, structure and approach as today's static legal agreements.

2.3. Interpretation

Hunit's technology decisions have been guided by an underlying belief that SLCs that increase the complexity of a court's interpretation increase risk for their users. Ease of interpretation and the reduction of novelty have been drivers behind Hunit's focus on technologically assisted natural language agreements, as is the company's best practice guidance to include a statement of precedence in favour of the natural language text. This allows a court or alternative dispute resolution process to judge the performance of the counterparties and the computational elements against a plain language description of the parties' intentions. This relieves the court from having to interpret the technicalities of the computational elements and rather judge their fidelity by assessing their outcomes against what was intended. In cases where the meaning of natural language text is in dispute, the presence of computational elements based on the disputed text provides the adjudicator with additional data to consider when rendering his or her decision – if a party argues that a section of text has one meaning and the counterparty argues another, the presence of computational automation consistent with one party's interpretation may bolster support for their position.

Consistent with Hunit's concerns over using solely code SLCs to record the large quantities of static but legally important terms, the company believes that a uniquely code SLC structure leaves its users at a disadvantage in areas of interpretation. While a dispute may involve a section of an SLC that contains computational automation, it is arguably more likely to involve a static section of the SLC as i) they are likely to be more plentiful, ii) do not benefit from the enhanced enforcement offered by computational automation, and iii) are more likely to contain elements based on subjective assessment. In these cases, the court is not being asked to rule upon the form and outcome of computational automation, but rather static terms described inside of a code-based wrapper (or, even more challenging, static terms described in a programmatic fashion that is not based on natural language). At this point, the use of solely code SLCs presents a hindrance to an adjudication process as it becomes an extra obstacle to interpreting the underlying legal terms, without being able to provide functional benefits through automation.

From declarative to procedural

Hunit believes, but has not yet tested in a court setting, that transitioning to natural language SLCs will assist the adjudication process beyond potentially providing additional contract data for an adjudicator to consider (as described above). The company also expects that the use of natural language SLCs will precipitate an evolution from the largely declarative style of today's legal text to one that favours procedural descriptions. This change occurs when using natural language text to describe the steps to be performed by the SLC's computational automation. Consider the following examples of a clause pertaining to the submission of management accounts to an investor, as would commonly be found in subscription and shareholder agreements. This example (in its declarative, analogue form) was retrieved from the British

Venture Capital Association's set of model documents[31]. The procedural, SLC version has been supplied by Hunit and makes use of proprietary, patent-pending features that facilitate the use of SLCs for the automated resolution of anticipated types of contract breach (which is discussed in further detail below).

Declarative, analogue:

> 12. The Company shall for each month prepare management accounts with comparisons to budgets and containing trading and profit and loss accounts, balance sheets, cash flow statements and forecasts and shall deliver them to the Investors within 21 days after the end of each month.

Procedural, digitalized:

Note that the below example contains the SLC's natural language component only. Please see the SLC Use Case Analysis contained in Part 3 of this document set for the detailed examination of an SLC based escrow agreement's ecosystem, automation flows and automation / natural language integration.

> 12. The Company shall for each month prepare management accounts with comparisons to budgets and containing trading and profit and loss accounts, balance sheets, cash flow statements and forecasts and shall deliver them to the Investors within 21 days after the end of each month using this Agreement's integrated messaging service ►**CLICK TO SUBMIT**◄. If the Company does not supply management accounts upon the day that they are due, the Company will be found to be in breach of this Article 12
>
> a. Upon the submission of the management accounts as specified above, the Investors shall be polled concerning the completeness of the information submitted. Each Investor Share shall have 7 days to respond by voting Yes, the information was complete or No, the information was not complete. The failure to respond to the poll will be construed as Yes, the information was complete. If 50% or more of the Investor Shares respond No, the information was not complete, the Company will be deemed to be in breach of this Article 12.
>
> b. *Remedy Article 12*: Upon entering into breach of this Article 12, the Company shall have 7 days from the start of the breach to resubmit management accounts to the Investors using this Agreement's integrated messaging service ►**CLICK TO SUBMIT**◄ (the "Replacement Management Accounts"). Upon the submission of the Replacement Management Accounts, the Agreement will poll the Investors concerning the completeness of the information submitted. Each Investor Share shall have 7 days to respond by voting Yes, the information was complete or No, the information was not complete. The failure to respond to the poll will be construed as Yes, the information was complete. If more than 50% of the Investor Shares vote yes, the information was complete, the breach of this article shall end. If 50% or more of the Investor Shares respond No, the information was not complete, the Agreement will instruct the Company Auditor to review the company accounts and create independently prepared management accounts, which the Company shall facilitate by providing the Company Auditor

[31] Model documents for early stage investments (2022). Available at: https://www.bvca.co.uk/Policy/Industry-guidance-standardised-documents/Model-documents-for-early-stage-investments (Accessed: 7 February 2022).

unrestricted access to Company accounting systems and bank records. Upon completion, the Company Auditor shall submit its management accounts using this Agreement's integrated messaging service: ►CLICK TO SUBMIT◄. Upon submission of the independently prepared management accounts, the Agreement will poll the Company Auditor if the Replacement Management Accounts had less than an overall 5% variance from the independently prepared management accounts or more than an overall 5% variance from the independently prepared management accounts. The Company Auditor shall have 7 days to respond to the poll and a failure to respond shall be construed as the Replacement Management Accounts had less than an overall 5% variance from the independently prepared management accounts. If the Company Auditor finds that the Replacement Management Accounts had less than an overall 5% variance from the independently prepared management accounts, the breach of this article will end and the Company shall invoice the Investors their pro-rata share of the costs incurred to the Company Auditor associated with this review. If the Company Auditor finds that the Replacement Management Accounts had more than an overall 5% variance from the independently prepared management accounts, this Agreement shall release to the Investors document package entitled "Signed Letters of Resignation by the Chief Executive Officer and Chief Financial Officer".

The SLC version of this clause presents a number of changes from its analogue counterpart. Driven by the need to describe the desired outcomes of the use of computational automation, the legal text delves into the procedural elements of delivering the management accounts, ascertaining if they were prepared in good faith, correcting poorly prepared management accounts and punishing the company if they are ultimately unwilling or unable to comply with the requirement.

The declarative syntax of the analogue version of this clause leaves these elements in the domain of a 'common understanding' of applicable business acumen. It furthermore relies upon a common understanding of how an investor (in this case) can force compliance in a recalcitrant company. This introduces inefficiencies that increase a) the likeliness of a dispute arising and b) the cost and complexity of settling ones that do.

Business culture is not homogeneous and (in this example) one may find the investors have invested across regional or national boundaries. Expectations over style, completeness and specificity of the management accounts may differ between the parties. Attitudes about the ability for the investors to demand revisions to the supplied management accounts may also vary. In the event that the investors are not satisfied with the quality of the management accounts and the company does not feel that it is obligated to disclose more than it already has, differences in business culture may create additional obstacles as the parties attempt to find a resolution.

If differing expectations prevent the investors and the company from finding a voluntary resolution between themselves, the investors are then faced with coercing the company into complying with their interpretation of their rights. A challenging aspect of this is determining which, of the many tactics available, are the ones that are most likely to result in success. If, for example, demand letters from counsel are ineffective, the

investors may seek external adjudication in the form of a court or arbitration process. The goal of this process is to convince the adjudicator that the investors' interpretation of their rights under this clause is accurate, now introducing a third viewpoint in the dispute. While prior precedence can often provide additional certainty, the outcome of court or arbitration process is subject to risk and is typically costly.

In the SLC version of this clause however, the desire to use automation to facilitate the submission of management accounts drives the parties to contemplate the procedures used to do so. Automation also pushes the parties to plan how the SLC will identify and deal with non-compliance. While it is feasible to have the SLC simply flag non-compliance and allow the parties to deal with it conventionally (i.e. a 'light' application of SLC automation), the technology also allows for the SLC to go a step further, if desired, and guide a non-compliant situation back to a state of compliance. Or, if the SLC's remediation is unsuccessful, its final step can be to execute upon pre-agreed punitive measures such as those above.

Through the act of planning and agreeing upon the use of SLC automation, the parties may explore, and document matters that are commonly omitted from a declarative style text. They will furthermore discuss and agree the extent to which SLC automation is mutually desired in certain aspects of the legal agreement. In the above example, it may have been alternatively decided that no automation would be employed following the poll of the Investors concerning the completeness of the original management account submission. However, in cases where SLC automation is used, the natural language syntax employed would be appropriate for the task of describing the automation steps - meaning that it is specific, sequential and does not rely on unsaid 'common understanding' for its execution.

In the event that a dispute arises from the SLC's version of the clause, the adjudicator is able to judge the level of compliance of each party against a far more specific description of the parties' agreed intentions. The adjudicator would also have the parties' use of computational automation to additionally inform its determination. But while it is easy to visualise ways in which the analogue clause may end in a dispute resolution process, it is more challenging to do so for its SLC counterpart**.** This demonstrates one of the benefits of using a natural language, descriptive syntax, technology-assisted SLC – the probability of a self-executing agreement term required in a dispute resolution process is presumably greatly reduced. This allows legal practitioners authoring SLC's to effectively protect their client's interests by selectively focusing the use of automation on terms that are either most likely to result in a dispute or which are the most damaging if they do.

2.4. Remedies

Concerns over fatalistic SLC behaviour were cited in a substantial portion of Hunit's customer focus groups. Legal practitioners sharing this concern expressed a belief that indelible SLCs were of limited use in a world where business conditions change, black swan events occur, and agreements need periodic adjustment or temporary voluntary suspension of their terms. The question generally was, in these scenarios, how does one turn off a self-executing agreement? In Hunit's view, these concerns are motivated by a) an inaccurate understanding of DLT-derived indelibility, and b) current use of 'smart contracts' (in the non-legal context) in the Ethereum DLT environment.

As discussed in section 1.1, non-legal 'smart contracts' have proven misleading to many legal sector stakeholders. The use of 'contract' in this context refers to a certainty of outcome based on the use of technical, not legal means. Put differently, as smart contracts have no de facto legal significance, the parties using them agree that adjudicator of last resort is the DLT technology itself, not a court of law. To fulfil their purpose without the assistance of the legal system, the integrity of a smart contract is guaranteed only by its resistance to alteration after it has been set in motion. Indeed, this technology-reliant approach and its need for perfect indelibility is a central pillar to the culture of the growing 'decentralised finance' sector. However, an SLC enjoys a fundamental difference in that its enforcement (from the outset) is based on the authority of the nation-state and the technical features of an SLC can be adjusted accordingly.

For example, an SLC may include a mechanism for a party to claim relief from its obligations due to a force majeure event, temporarily suspending self-execution. Such a mechanism can be triggered via an interface where one party or the other can halt the SLC subject to whatever controls as may be deemed prudent. In a 'smart contract', a force majeure feature may prove disastrous - absent legal enforcement, a party can claim relief from its obligations at its convenience while creating little or no liability for itself. However, a party to an SLC that attempts to do the same would be subject to legal and financial penalties, as is the case today when a party invokes force majeure inappropriately.

Additionally, there is a broad spectrum of commercial situations in which human intervention in the execution of an SLC's automation would be deemed desirable. For example, an SLC could use a polling structure like that described in section 2.3 to verify critical steps in its embedded automation. These may take the form of confirming an SLC handled payment before it is sent or confirming that a punitive action against a non-compliant party is desired by its counterparty.

The use of SLC technology in this manner also resolves potentially unanswered questions concerning liability – requiring human confirmation prior to executing an automated outbound payment (for example) avoids situations where an erroneous payment may have been executed without fault of either contract party.

Moreover, the ability for SLC participants to pause automation and to modify the automation and/or natural language terms are critical elements in assuring an SLC's compliance under law. As described by the Law Commission, the ability for a legal instrument to be rectified by its parties or by a court of law is a key pillar of today's legal and regulatory framework and must persist when using SLC technology.

While 'blockchains cannot be changed' is a widely held belief, Hunit is careful to point out that this is only partially true. These technologies are designed to record data indelibly, but they are not designed to impart fatalism – any data can be subsequently modified with the record of that modification (and the data's before and after state) being stored on the blockchain. Blockchain, and DLT more generally, is designed to record both a time-based snapshot of data and, importantly, how the data change over time. So, while this means that the original state of an SLC at the time of it being signed will persist in a DLT environment, so will every subsequent change and update. In other words, the SLC, if allowed to by its terms, can be modified by

its parties (subject to mutual or court mandated agreement) at any time and for any purpose and those modifications are then recorded by the DLT environment.

The final element needed to ensure that SLCs can function in a way that is responsive to the changing needs of the parties and/or actions taken by the judicial system is a set of technical features that allow this 'off chain' input to effect changes to the execution of an SLC. To a very significant extent, these tools have not yet been made available to the market.

In response, Hunit's SLC architecture provides insertable SLC functionality that allow for actions equivalent to those used in analogue legal instruments. For example:

- Trigger a force majeure suspension of an SLC
- Replace, amend, cancel, rectify, or resolve an SLC based on agreement between its parties to do so (see the Use Case Analysis in Part 3 of this document set for a detailed examination of this issue)
- Permit a Company Secretary to fulfil its duties as ascribed in corporate code (such as transferring equity shares in response to a court order)

Automated resolution of contract breach

Separate from the types of agreement remedies described above, SLCs allow for novel ways to resolve situations of contract breach. Opening the door to new opportunities for legal practitioners to add value for their clients or employers, SLCs (as offered by Hunit's technology platform) allow counterparties to extend the subject matter of an agreement to include pre-determined remedial actions in the event of anticipated types of contract breach.

Pre-determined remedies are expected by Hunit to improve contract compliance in two ways. Firstly, the certainty and transparency of the 'remedy of last resort' (such as the above example's release of pre-signed letters of resignation by the company's management team) assures that contract parties are motivated and focussed on avoiding the conditions that would trigger its execution. Secondly, a set of automated SLC remedies can be designed in such a way as to guide the parties back into compliance prior to the remedy of last resort being triggered. In the above example, the parties are guided through a process intended to i) correct honest mistakes, ii) resolve a disagreement over what constitutes appropriately prepared monthly reporting and, finally, if both preceding steps fail, execute the iii) remedy of last resort.

This style of technology-enhanced contract compliance directly addresses one of the major concerns voiced by both the Law Commission and within many of the company's customer focus groups. A multi-step process such as described in the example above allows for an SLC to enter into and recover from a state of breach while continuing to fulfil its intended lifecycle. Technology-enhanced contract compliance may also be used to provide an SLC with additional 'endpoints' that allow an SLC to respond to changing real-world conditions by completing a variation of its originally intended lifecycle.

Consider an SLC-triggered liquidation of assets used to secure a debt agreement which has reached a remedy of last resort. When the assets are being liquidated by a third-party trustee acting on behalf of the SLC, the proceeds are paid to the SLC's embedded bank account and the SLC can then i) direct the appropriate amount to the creditors (plus a commission to the trustee and remaining balance to the

debtors), and ii) trigger the end of the SLCs term, releasing the parties from their ongoing binding relationship as soon as the debt has been discharged as a function of the remedy of last resort.

While this SLC endpoint was not the one that was originally desired for the commercial arrangement between the parties, it is one that was pre-agreed as acceptable at the time of entering into the SLC. This endpoint could have been reached using a conventional analogue agreement, but this outcome would have likely required the intervention of a court or arbitrator (including the associated costs, risks and delays). By using technology-enhanced contract compliance, the SLC is able to offer its parties transparent and predictable outcomes for a variety of potential situations. These outcomes can be as numerous (or as few) as the SLC's parties believe are beneficial to pre-plan and each represents a potential eventuality that has been contemplated and agreed upon prior to having entered into a binding legal relationship.

2.5. Consumer protection

Consistent with Hunit's experiences as described above, it believes that natural language, technologically assisted SLCs are capable of full compatibility with today's consumer protection laws.

For the reasons described by the Law Commission, the *transparency and fairness* of an SLC can be compromised by SLCs that incorporate explicitly described code syntax. However, natural language based SLCs continue to be fully transparent to anyone possessing adequate language skills, as would be the case with an analogue agreement. While SLCs provide no inherent guarantee of enhanced fairness, relieving the parties or a potential adjudicator of the need to understand explicit code syntax allows these stakeholders to evaluate fairness using the same or similar methodologies as employed today.

By extension, natural language SLCs are not believed by the company to introduce novelty to the assurance of *information rights* as they can describe their terms using whatever on-screen document layout is considered optimal for the task.

The company also acknowledges that some types of SLC construction would be challenged by allowing a *consumer's right to treat a contract as at an end*. However, Hunit's SLC platform provides a blank canvas for the SLC author to design a multi-endpoint legal agreement that includes, for example, the ability for a consumer to terminate an agreement as required by consumer protection laws. By placing consumer rights-related mechanisms inside the agreement (rather than having them configured into the underlying technical platform on a global basis), it allows SLC authors to i) embody the specific rights applicable to a defined type of counterparty and relationship, and ii) easily revisit an SLC's template terms as consumer protection laws evolve over time. As a further benefit to the company as the platform provider, providing the appropriate tools to legal practitioners allows the legal practitioners themselves to assure that the SLCs they create for their clients or employer are compliant with rules of engagement that are specific to their particular business area and geographical jurisdiction, rather than burdening the platform with features designed to meet the needs across international jurisdictions of a large and evolving body of law.

2.6. Jurisdiction

Hunit recognizes that the cryptocurrency and smart contract (not SLC) environment permits a range of transactions between pseudo-anonymous parties. In these transactions, which have degraded or no opportunities for enforceability, jurisdiction is typically of limited or no value – the first and final arbiter is the code of the smart contract itself. However, the company believes that a DLT platform built for SLCs cannot simultaneously leave the question of jurisdiction unaddressed and fulfil its purpose of managing legal instruments.

Hunit sees no technological barrier preventing the author of an SLC from identifying the choice of jurisdiction in a document intended to be legally enforceable in a court of law. Costly and damaging failures in identifying jurisdiction occur in today's analogue legal documents, but fault is apportioned to the drafting lawyer, not the medium through which the agreement was recorded. In the event that a cross border dispute arises in an SLC that fails to adequately address jurisdiction, use of a technologically enhanced natural language agreement between identified counterparties allows a court to apply the same (or substantially the same) processes for determining the agreement's geographic centre of activity as are currently used today. Similarly, the use of SLC technology is unlikely to impact the so called 'jurisdiction shopping' that sometimes occurs in international disputes today.

SLC automation does however raise jurisdictional issues regarding how automation is carried out. Basing an SLC on a natural language document does mitigate this issue to a great extent as the written document can be drafted in a manner compliant with its desired jurisdiction (as is done today in conventional analogue agreements). Additionally, most of the contract actions that SLCs can automate or monitor do not vary from jurisdiction to jurisdiction. For example, distributing a lump-sum interest payment from a bond issuer to its creditors uses the same computational steps regardless of jurisdiction.

However, commercial code varies from jurisdiction to jurisdiction and not all contract automation is universal in its applicability. For example, regulations concerning stock options can vary significantly from jurisdiction to jurisdiction. In the case that an SLC is used as a shareholder agreement that manages equity share ownership (and, by implication, which must take into account the company's stock option program), a jurisdiction-agnostic SLC platform needs to offer jurisdiction-specific versions of certain types of contract automation. Alternatively, a partially or solely code-based SLC platform could use a coding language that offers the sophistication and flexibility for the SLC author to create their own jurisdiction-appropriate contract automation.

3. Global Impact of SLC Adoption: Insights and Discussion

The World Wide Web has transformed aspects of the human experience that were unexpected at its inception. Hunit believes that the proliferation of SLCs holds potential for sweeping digital transformation and that it is equally difficult to predict the full breadth and impact of their long-term uses. Based on the findings of the Law Commission and through its own investigation, Hunit does not believe that SLC-based digital transformation requires a separate legal and legislative framework. SLCs can, when using appropriate technological approaches, operate in line with today's legal and regulatory environments. While Hunit's ongoing development of its SLC platform has revealed some SLCs features or actions that do not currently enjoy full legal or regulatory clarity, the cases so-far identified are specific in nature and can be resolved by adding to existing legal or regulatory frameworks, not performing a fundamental revision to them. For example, please see part 2 of this document set for the exploration of specific issues related to SLC handling of client funds.

The company further views that the lack of clarity over SLC compatibility with existing legal and legislative frameworks can be traced back to the decentralised finance (cryptocurrency) sector and its use of smart contracts. For the reasons described in this article, the requirements of this sector are not fully aligned with the requirements of the legal sector and have resulted in technological solutions that are sometimes poorly aligned with SLC use. Hunit believes that basic concerns over the potential for SLCs to operate in today's legal and regulatory environment will drastically reduce over time as technology solutions tailor made for SLCs and the legal sector proliferate.

Assuming that legal sector specific SLC technology becomes widely available, the following are some of the impacts that Hunit believes it will bring.

3.1. Risk and cost reduction

The most evident and oft discussed impact of SLC technology use is the reduction of the risks and costs associated with the fulfilment of a binding legal agreement. In its public consultation, the Law Commission found that "[a]lmost all consultees emphasised the potential for smart legal contracts to enhance efficiency, provide greater transparency, and reduce enforcement costs"[32]. While specific cost efficiencies related to the procedural fulfilment of a legally binding agreement will be dictated by the type of legal instrument and the use of automation by its author, sector stakeholders are broadly in agreement that these efficiencies are sufficiently meaningful to warrant their pursuit. However, less discussed but arguably of equal or greater importance is the ability for SLC technology to mitigate the risk of costly errors or fraud.

Recent examples include a single data entry error on a payment management terminal at Citibank resulting in inadvertent payment of $900 million, approximately $500 million of which were unrecoverable due to the nature of the case[33]. In terms of fraud, the UK suffers from nearly 150,000 instances annually of so called

[32] 'Smart legal contracts: Advice to Government', Law Commission (2020) https://www.lawcom.gov.uk/project/smart-contracts/

[33] Bloomberg – Citi Can't have its $900 Million Back (2021). Available at: https://www.bloomberg.com/opinion/articles/2021-02-17/citi-can-t-have-its-900-million-back (Accessed: 9 February 2022).

'Authorised Push Payment' scams alone, which result in an estimated £479 million of yearly losses[34]. The nature of these scams, which take advantage of the lack of security in most email systems, trick humans into sending lawful amounts to bank accounts controlled by the perpetrators – a method that SLC technology can wholly neutralise.

3.2. Negotiation and counterparty selection

As discussed in section 2.4 above, authoring and negotiating a multi-endpoint SLC (which includes pre-planned remedial actions to be taken by the SLC in the event of specified types of contract breach) allows parties to essentially 'simulate' how their relationship would function if certain adverse events were to occur.

To complete a multi-endpoint SLC, negotiating processes must broaden. The parties to a negotiation must determine which of an SLC's terms warrant the exploration of potential breaches, what the remedies to those breaches may be, and the level of discretion (as opposed to fatalism) is desired in those remedies.

The terms a party is willing to agree to provide improved clarity over their ethical principles as well as their confidence in their ability to fulfil the terms of the SLC – before entering into a binding relationship. As a result, it becomes a) easier for good faith actors to demonstrate that they are good faith actors, b) harder for bad faith actors to hide that they are bad faith actors, and c) harder for bad faith actors to take advantage of good faith actors when expediency requires entering into a binding relationship with a questionable counterparty.

3.3. Testing legal agreements

Costly and damaging litigation can arise through seemingly insignificant drafting errors. In the company's estimation, a contributing factor is the lack of effective methods for testing analogue agreements other than through a meticulous, largely manual review of every word on every page. In this high-stakes environment, a momentary lapse of focus can prove disastrous. Intuitively, it is an easy conclusion that transitioning from an analogue agreement to an SLC adds additional complexity. Indeed, the legal practitioner must now make sure that both the terms of the agreement are right and that the SLC's automation of them is correctly configured. However, SLC automation provides lawyers new tools to review the quality of the legal document, before it enters into effect. For the first time, SLCs allow a drafting lawyer to 'test run' an agreement using emulators and "sandboxes". Unexpected behaviour can be quickly identified and corrected, before it causes damage. Likewise, a reviewing lawyer (and even so-inclined clients) can run a proposed SLC through the same tools to confirm that it self-executes as desired. It is a statistical certainty that meticulous, manual review processes will fail from time to time. This has led the software industry towards the use of automated code review tools that improve the speed and accuracy of quality assurance. Hunit believes that the use of SLCs would allow the legal sector to make use of similarly

[34] Fraud - The Facts, The Definitive Overview of Payment Industry (2021), UK Finance (available at: https://www.ukfinance.org.uk/system/files/Fraud%20The%20Facts%202021-%20FINAL.pdf (accessed February 7, 2022)

structured tools, reducing the risk of errors that prove to be costly for both the agreement's parties and law firms.

3.4. Reduced differentiation between private and public financial markets

Many use cases for SLCs fall within the so called 'Alternative Asset' sector of the global finance market. Constituting roughly £1 trillion of newly issued analogue, private market and bilateral investment instruments each year[35], this sector is particularly well suited for the use of SLCs. As analogue agreements are replaced by SLCs, this sector will begin to enjoy pervasive benefits of digitalization, potentially including:

Analogue investment agreements vs SLCs in alternative assets

Category	Analogue agreements	SLCs
Reporting	Periodic, unstructured reporting (e.g., PDF 'screen scraping' of data)	Automated data collection and transmission of structured reporting data (dashboarding)
KYC and issuance	Manual, protracted and costly investor KYC onboarding, issuance processes and delivery-vs-payment	Automated self-help investor KYC onboarding, automated and inexpensive issuance / delivery-vs-payment
Trading	Low secondary liquidity, telephone-based trading, high friction transactions	Global peer and price discovery, low friction / low counterparty risk transactions
Operations & monitoring	Proactive, manual performance of ongoing operational tasks and compliance monitoring for issuers and/or investors	Passive, automated performance of ongoing operational tasks and verification of compliance with agreement terms
Dispute resolution	Costly, protracted and uncertain court or arbitration-based dispute resolution / rights enforcement	Expedited, low cost and high certainty resolutions to anticipated types of contract breach

As private market investment instruments incorporate the above digitally-derived benefits, the comparative advantages of maintaining a public, exchange listed investment instrument are expected to reduce. However, an issuer's cost and disadvantages of maintaining a public investment instrument would presumably be unchanged, likely altering the conclusion of a cost/benefit analysis for many potential public market participants. Inverting a hypothetical cost/benefit analysis further, SLC-enabled alternative assets have a strong potential to outperform exchange traded public investments in the area of dispute resolution.

[35] A New Decade for Private Markets - McKinsey Global Private Markets Review 2020. Available on https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/mckinsey-global-private-markets-review-2020-v4.ashx (last accessed November 8th, 2021)

The New York Stock Exchange (NYSE) provides a clear example of how SLCs could offer an improved business environment. An NYSE listed company is subject to the unabridged commercial code of the State of New York, which grants often-abused rights to investor class action lawsuits. The chance of a company defending an investor class action within the first 5 years of an Initial Public Offering is roughly 1 in 5[36]. If a company is part of the S&P 500, that increases to a 1 in 10 chance per year[37]. Of the 5,200 investor class actions filed since 1996, less than 25 were resolved by trial (the remainder being settled), but in 85% of settled cases, the shareholders concerned received zero compensation, despite a $13 million median cost to the concerned companies in 2018[38]. Further demonstrating the pervasiveness of this problem, fully 85% of all mergers or acquisitions over $100 million in value involving a NYSE listed company in 2018 were challenged by a merger-objection lawsuit at an average 2012-2017 settlement cost of $3.8 million[39].

While the above data illuminates a pervasive and costly disadvantage to maintaining a public listing on the NYSE, the impact of frivolous litigation extends beyond the companies defending them. The U.S. Chamber Institute for Legal Reform estimated in 2014 that in the 10 years prior, $701 billion of investor wealth was lost due to the impact of investor class actions on stock price while only $90 billion was recovered[40]. This extraordinary amount of value was erased from investors' pension programs, employee stock option programs and other sources of retail capital.

When operating in a private market, SLC-enhanced investment structures offer the ability for issuers to curate the terms of equity or debt offerings. They furthermore offer the ability to pre-plan and pre-authorise remedial actions for specific types of non-compliance, relieving both the issuer and the investor of the burden of litigating issues that arise in these areas. As SLC-based digitalisation equalises the features of today's highly differentiated public / private financial markets, it may mean that companies increasingly opt to stay private long after a public listing would be viable.

3.5. Increased rates of Foreign Direct Investment

While subject to little quantified research, Hunit estimates that concerns over exposure to poorly functioning judicial systems (as are most often found in developing countries) results in a meaningful negative impact on rates of Foreign Direct Investment (FDI). As a compounding factor, local business culture (which has developed alongside the business environment) sometimes takes advantage of delayed, inconsistent or corrupted judicial systems. These cultural differences often add to uncertainty around the performance of local business partners vis-à-vis international sources of capital.

While it is impossible to fully insulate an investment from the sovereign nation in which it operates, the certainty and transparency of pre-planned automated remedies can drive improved business acumen on

[36] From Nuisance to Menace - The Rising Tide of SCAs (2019) Chubb.com. Available at: https://www.chubb.com/content/dam/chubb-sites/chubb-com/ca-en/microsites/rims/documents/pdf/from-nuisance-to-menace--the-rising-tide-of-scas--chubb.pdf (Accessed: 8 February 2022).
[37] Ibid.
[38] Ibid.
[39] Ibid.
[40] What's Wrong with Securities Class Action Lawsuits? - ILR (2014). Available at: https://instituteforlegalreform.com/research/whats-wrong-with-securities-class-action-lawsuits/ (Accessed: 8 February 2022).

the part of local partners as well as provide resolutions, executed independently of the local judiciary, to key types of contract breaches.

While Hunit has not been successful in finding applicable external research, the company's hypothesis is that within a spectrum of potential FDI opportunities, there is a threshold between opportunities that a particular investor is willing to fund and those which it is not. This threshold represents the point at which the risk / reward ratio turns from positive to negative. Where the reward is the expected performance of the investment, the risk is the cumulative likelihood of challenges such as execution failures, changes to the applicable markets, political risk, judicial risk, and others.

In this context, a multi-endpoint SLC (including pre-planned remedies for breaches to key contract covenants) has the ability to meaningfully mitigate specific types of risk and, as a consequence, reduce the amount of reward required to achieve investment. A multi-endpoint SLC can help support a rigorous adherence to contract terms across multiple cultural, sometimes poorly matched, environments and, with its pre-planned remedies, it may reduce the risk of problematic judicial enforcement of breached contract covenants.

The United National Conference on Trade and Development (UNCTAD) estimated in its June 2021 World Investment Report[41] that $686 billion of FDI flowed into developing countries in 2020. In the context of these substantial capital flows, even a small shift in the risk / reward threshold for borderline projects can result in a substantial increase (in absolute terms) of FDI deployed. Every 1% of additional investment projects that achieve funding using SLC-enhanced contract governance results in nearly $70 billion in additional developing country FDI (per annum), a powerful catalyst for reaching the S(society) and G(governance) goals of the United Nations' ESG framework.

3.6. Better quantification of risk

As discussed above in the context of foreign direct investment, risk assessment is a critical process in making informed financial decisions. While historical data can provide guidance on median outcomes for a broad spectrum of financial transaction, assessing risk often includes an assessment of plausible 'worst case scenarios' and subjectively or analytically, assigning a likelihood of occurrence to them. When assessing the risk of a counterparty breach, one must additionally consider the cost, time, and uncertainty of using a court or alternative dispute resolution process to enforce one's rights. When a (multi-endpoint) SLC is used to pre-determine contract outcomes for both the desired case scenario as well as several remedial endpoints (each representing a form of adverse event for the intended SLC outcome), parties are able to perform their risk assessments free from the considerable uncertainty of successful enforcement of contractual rights.

A practical example of this is the forced liquidation of an asset used to secure a debt structure. In a conventional environment, the investor must assess the likelihood of a default hand-in-hand with their ability to trigger the forced liquidation of the asset. If the issuer turns recalcitrant, forcing the liquidation and

[41] World Investment Report | UNCTAD (2021). Available at: https://unctad.org/topic/investment/world-investment-report (Accessed: 7 November 2021).

receiving its proceeds could take months or years. When included in a risk assessment, uncertainty over the time, cost and success of an enforcement action magnifies the underlying risk of default.

When using a multi-endpoint SLC, the timing, certainty, and process to liquidate the asset is transparent to the investor at the time of entering into the SLC. While the risk of underlying default is still present, the final resulting outcome of default is known to a high degree of certainty, which in turn allows for a more specific pricing of risk. This improved accuracy may have substantial impact on insured financial investments or transactions. In this context, the transparency offered by a multi-endpoint SLC may provide a significantly improved understanding of the risk the insurer is assuming and pave the way towards broader availability and lower cost insurance services.

3.7. Legal certainty and the reduction of alternative versions of facts

Unlike conventional analogue agreements, SLCs are stateful – meaning they are aware of where they are in the timeline and execution of an agreement's lifecycle. This 'statefulness' is a product of the SLC's creation of an indelible, DLT based record of events related to it. Data such as: when and who authored, when and who digitally signed (including hashed biometric confirmation of the signatory's identity), all events related to the execution of contract automation, contractually important notifications between parties, how and when conditions of breach were triggered, information concerning secondary transactions involving assets governed by the SLC, and data concerning the performance of the underlying economic activity governed by the SLC are all subject to fully automated, DLT-based record keeping.

Disputes are often hampered by parties claiming that *their* alternative versions of facts best represent the events leading up to or causing the dispute. In these cases, the dispute resolution process must first determine which, if either, of a competing set of facts is accurate. As the result of this determination may include assessment of facts that only one or neither party recognize as accurate, building consensus between the parties about the cause (and most appropriate resolution to) a dispute is challenging. In an environment where stateful SLCs provide automated, indelible and impartial logs of contractual events, the dispute resolution process can instead focus on the equitable resolution of a dispute rather than attempting to decipher the underlying facts.

3.8. Reduced burden on court systems

Multi-endpoint SLCs can potentially reduce the burden on court systems (or indeed any dispute resolution apparatus) in three primary ways.

Firstly, as has been previously alluded to, the ability to pre-plan and pre-authorize remedial action helps guide breaches back into compliance without a dispute resolution process. Or, if irresolvable, these remedial actions allow for the execution of steps intended to provide a resolution of last resort. While it is impractical to attempt to anticipate every type of potential contract breach, it would be viable and desirable to do so for an agreement's most important covenants. This relieves the court from spending time on issues that are presumably the most likely to result in a dispute; leaving it instead to resolve issues that are less

likely to occur, require a more intricate (i.e., 'human') sensibility or deal with issues that are subjective in nature (and unlikely to be subject to contract automation).

Secondly, for reasons described in the above sections concerning contract interpretation and legal certainty, an SLC can assist an adjudicator in reaching an equitable resolution. With an SLC's more procedural natural language syntax, the potential presence of contract automation (relevant to the dispute) and the SLC's indelible record of events and actions, adjudicators have more data to assess in trying to determine the intention of the parties and the nature of the dispute.

Thirdly, a significant portion of the operational burden of a dispute resolution process is the post-resolution follow up – did party A pay the specified amount to party B within the allowed time? A resolution to a dispute (whether it be arrived at by a court decision, mediation or other) essentially represents an agreement to absolve further liability if certain steps are completed. Instead of expressing a final ruling or resolution agreement as an analogue instrument, these documents can instead be authored as SLCs themselves where the absolution of liability is rendered only upon the completion of steps that are subject to contract automation. In other words, an SLC-based court ruling will assure that party A paid the specified amount to party B within the allowed time and will indelibly record that the conditions needed to resolve the dispute were met.

Together, these three factors can result in an overall dispute resolution environment that focuses its most scarce resource (human time and focus) on complex, subjective disputes (where the flexibility and adaptability of the human intellect is indispensable) and offloads much of the post-dispute follow up to SLC automation. Disputes involving covenants that the parties consider central to their contractual relationship can be pre-resolved using a multi-endpoint SLC structure, providing better outcomes faster for critical contractual matters. Combined, they lay a foundation for a more efficient court system that is burdened by fewer cases, and which has enhanced tools at its disposal for resolving the cases that do come before it.

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PART 2. REGULATORY CLARIFICATION CONCERNING THE USE OF SLC AUTOMATION FOR THE HANDLING OF CLIENT FUNDS

Part 2 of this document set addresses the use of SLC technology for the purposes of handling what are considered 'client funds' under the regulatory structure maintained by the Solicitors Regulation Authority (SRA).

Context – why client funds are important to the use of SLC technology

SLC technology is capable of automating many of the types of tasks commonly described in legal agreements. Of this array of automation, the handling of payments to and from agreement counterparties is of heightened importance as financial transactions lay at the heart of the overwhelming majority of legal instruments. Additionally, risks of mismanagement or fraud are most pronounced when handling payments as errors often prove costly and difficult to correct and fraud frequently results in the outright loss of the sums in question. As cited in Part 1 of this document set, Citibank recently paid approximately $900 million that was not due because of a single data entry error on a payment management terminal[42]. The UK additionally suffers an estimated £479 million of annual losses as a result of nearly 150,000 instances of so called 'Authorised Push Payment' scams where lawful payments are fraudulently diverted[43] using methods that this example SLC escrow agreement would neutralise. In this light, SLC managed automation of payments promises a highly desirable and impactful improvement over today's static analogue agreements.

Many types of contractually-governed payments are executed by legal professionals providing 'regulated services' on behalf of or to their clients[44]. Examples of this include handling escrow facilities, receiving cash consideration in corporate transactions, acting as an agent of the client, or as a trustee. As these types of payments involve what the SRA defines as 'client money', it is subject to strict regulatory guidance concerning how it is handled on behalf of the client.

As explored in the analysis of an SLC-based escrow agreement contained in Part 3 of this document set, the use of SLC payment automation can provide substantial benefits to many or most types of 'client money' transactions. It reduces or eliminates the likelihood of error and fraud while simultaneously providing better transparency to clients and lower operational costs to legal services providers. However, of solicitors

[42] Bloomberg – Citi Can't have its $900 Million Back (2021). Available at: https://www.bloomberg.com/opinion/articles/2021-02-17/citi-can-t-have-its-900-million-back (Accessed: 9 February 2022).
[43] Fraud - The Facts, The Definitive Overview of Payment Industry (2021), UK Finance (available at: https://www.ukfinance.org.uk/system/files/Fraud%20The%20Facts%202021-%20FINAL.pdf (accessed February 7, 2022)
[44] SRA Accounts Rules (2019). SAR Rule 2.3(b) and (c). Available at: https://www.sra.org.uk/solicitors/standards-regulations/accounts-rules/ (Accessed: 9 February 2022).

that are struck off the rolls for disciplinary reasons, approximately one third are related to the mishandling of client funds[45]. While it is unlikely that a sizable percentage of these cases are due to accidental mishandling, the legal services sector in general is highly attuned to the threat of mishandled client funds and approach innovation in this area cautiously.

The issue that arises is how a novel technology such as SLCs may be interpreted under existing SRA regulations and, as a consequence, how can it be employed by the legal services sector without creating regulatory risk for itself or its clients. Without additional clarity, it is likely that justifiable aversion to risk amongst legal practitioners may limit or stunt the use of SLC technology in applications where it promises significant improvement for all stakeholders.

Summary of the regulatory clarification request

Working with the Regulatory Response Unit of the LawtechUK Sandbox (itself an organ of the LawtechUK Delivery Panel), Hunit was pleased to engage the SRA in constructive, exploratory dialogue. This discourse pertained to the regulatory dynamics of SLC technology use and supported the company's own efforts to develop the industry guidance presented here.

Key areas of discussion:

- How would SLC automated payment facilities be viewed vis-à-vis current regulatory categorization?
- Does SLC automation give rise to additional considerations for solicitors seeking to deploy it on behalf of or to their clients?
- Are legal service providers able to ethically and compliantly charge for automated handling of actions generally and/or related to automated handling of client funds?

The guidance contained in this Part 2 is provided by Hunit Ltd. It does not constitute legal advice nor is it binding on solicitors, their clients, the Solicitors Regulation Authority, the Legal Ombudsman, or the Courts. This guidance is for discussion purposes only and is not an exhaustive exploration of the matters discussed. Parties interested in deploying SLC technologies are advised to seek independent legal and regulatory advice.

Key regulatory considerations for the use of SLC technologies

As explored in Part 1 of this document set, Hunit's experiences have indicated that the use of SLC technology based on natural language terms greatly mitigates the risk of novel agreement structures impacting regulatory compliance. Accordingly, an overarching theme of this guidance is on assuring that clients have a transparent understanding of the terms, conditions, costs and actions of an SLC platform prior to engaging with it for the purposes of recording a binding legal agreement.

[45] Significant rise in number of solicitors struck off, as tribunal faces ever more complex cases (2017). Available at: https://www.legalfutures.co.uk/latest-news/significant-rise-number-solicitors-struck-off-tribunal-faces-more-complex-cases (Accessed: 9 February 2022).

A. Regulatory fit of SLC automated payment facilities

Regulatory Considerations: If firms receive money on account before the delivery of an invoice or if money is received by the firm related to the firm's provision of regulated services to the client, the definition of this money as client money is already well established under existing regulations and it must be handled in accordance. However, established alternatives exist to the conventional client account handling outlined in rules 2.1 and 2.3 of the SRA Accounts Rules (SAR)[46]. One alternative is the permissioned use of non-client account facilities as described in rule 2.3(c) of the SAR, which requires written agreements between the firm and the client in each instance. A second established alternative is the use of Third Party Managed Accounts[47] under rule 11 of the SAR. However, vigilance over how client account facilities are used is recommended to assure that they do not become a banking facility where movements into and out of client account services are inadequately linked with the payment of solicitor's fees or the supply of regulated services (as currently described in rule 3.3 of the SAR)[48]. Finally, one must also consider that existing regulations exempt solicitors from the SAR for payments that are made directly to the client and are not handled by the solicitor's firm.

Discussion: While the SAR underlines that client money must be handled in strict accordance with existing regulatory guidance, it also illuminates two related paths to providing compliant SLC automated payment handling to clients. Firstly, an SLC platform may obtain the regulatory approvals needed to become a provider of Third Party Managed Account services, relieving the solicitor of liability for handling of client money as "Money held in a Third Party Managed Account does not fall under the definition of client money in the SRA Accounts Rules as it is not held or received by [the solicitor]. As such it does not have to be held in accordance with [the SRA's] rules relating to the holding of client money."[49] This approach has the additional benefit of mitigating the risk of falling afoul of rule 3.3 of the SAR (improper use of a client account as a banking facility). As the regulatory requirements for offering a Third Party Managed Account include an approval to operate as an Authorised Payment Institution (which is needed to facilitate payments between parties for non-regulated services), a so-licensed SLC platform may alternatively offer Third Party Managed Account and Authorised Payment Institution services to both the solicitor and the client using a single technology platform. This may prove to insulate the solicitor from liability by being deemed to provide Authorised Payment Institution based services (for non regulated services) directly to the client (rather than via the solicitor's firm).

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[46] SRA Accounts Rules (2019). Available at: https://www.sra.org.uk/solicitors/standards-regulations/accounts-rules/ (Accessed: 9 February 2022).
[47] Third party managed accounts - Guidance (2019). Available at: https://www.sra.org.uk/solicitors/guidance/third-party-managed-accounts/ (Accessed: 9 February 2022).
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[49] Third party managed accounts - Guidance (2019). Available at: https://www.sra.org.uk/solicitors/guidance/third-party-managed-accounts/ (Accessed: 9 February 2022).

B. Additional considerations for solicitors seeking to deploy SLC technology

Regulatory Considerations: Additional review of published SRA regulatory texts highlighted five key principles that all solicitors should keep in mind when using SLC technology to support the supply of regulated services.

1. Solicitors must act in their clients' best interests, and they must provide a competent service. Ultimately it is for each firm to consider whether this product is suitable for their clients. This would entail that firms understand the operation of the SLC, and that they ensure that the client understands this too. Under existing regulations, solicitors' firms remain accountable for compliance with SRA rules even when their work is carried out through others (paragraph 2.3 SRA Code of Conduct for Firms[50]). Therefore, firms should presume that they will be accountable for the service provided by the SLC during the firm's retainer with their client.
2. Insurance. It is compulsory that solicitors' firms obtain adequate insurance to cover the work that arises from the firms' private legal practice. Solicitors should consider how the use of SLC technology impacts their insurance coverage and make arrangements to assure continued compliance with existing regulations in this area.
3. Money Laundering Regulations. Firms have an existing obligation to comply with The Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (as amended) including carrying out adequate customer due diligence and ongoing monitoring. Firms should consider whether their use of SLC technology allows for their continued compliance with these requirements.
4. Client confidentiality. Solicitors shall evaluate if the use of a particular SLC or SLC technology will result in client information being shared with third parties (as addressed in paragraph 6.3 of the SRA Code of Conduct[51]) or being handled in contravention to UK laws concerning personal data handling. If determined by the solicitor to be required, clients must give informed consent for the methods or structure of handling their personal data.
5. Court remedies. If an SLC or its technology platform disallows court remedies in certain situations, the solicitor must be satisfied that is not contrary to English law.

Discussion: The regulatory texts informing these key additional considerations are central pillars of the practice of law in the UK and do not contain exceptions for novel technologies. Accordingly, the use of SLCs must be capable of compliance with today's regulatory framework without modification. Keeping these considerations in mind contributes to the legal services industry's evaluation of how it i) selects the most appropriate SLC technology, ii) offers services to clients based upon it, and iii) addresses the risks of using this innovative contracting medium.

[50] SRA Code of Conduct for Firms (2022). Available at: https://www.sra.org.uk/solicitors/standards-regulations/code-conduct-firms/ (Accessed: 9 February 2022).
[51] Ibid.

C. Passing on of SLC costs to clients.

Regulatory Considerations: Evaluation of existing regulatory guidelines did not identify impediments to solicitors passing on SLC technology related costs to clients as long as solicitors are clear and transparent about the nature of the costs related to use of SLC technologies, the terms upon which SLC automation is rendered, and assure that their clients understand these elements in advance.

Discussion: In its series of focus group interviews, Hunit found that technology-based services are increasingly forming a portion of overall legal deliverables to clients. A cited example was the turnkey delivery of a business-to-consumer contract management platform pre-populated with the legal agreement templates needed by the client. As the benefits of adopting new technologies proliferate, the gain in efficiencies through automation and reduction in risk has been passed onto clients by the firms that service them[52]. Firms are also becoming increasingly comfortable in interacting with technology on behalf of their clients and of passing on the cost of these technologies to them – promising a similar approach to the uptake and use of SLC platforms.

Conclusion of Hunit's regulatory response process

Hunit's guidance for the compliant use of SLC technologies is based on the overarching view that the use of SLC technologies is not differentiated from other technological enhancements. Existing ethical and regulatory principles persist into this new contracting medium. Solicitors using SLCs must ensure in all cases that they are acting in the best interests of their clients, determining whether the use of the SLC is suitable for their clients, ensuring they understand the operation of the SLC and that their clients understand this too.

[52] Legal tech in 2018 threats and opportunities, Lawsociety.org.uk (2018). Available at: https://www.lawsociety.org.uk/en/topics/blogs/legal-tech-2018-threats-and-opportunities (Accessed: 9 February 2022)

PART 3: SMART LEGAL CONTRACT USE CASE ANALYSIS

1. Introduction:

Preparation and disclaimer: The preparation, review and analysis of this specific use case has been carried out with the intention to comply with the legal and regulatory principles identified in Parts 1 and 2 of this document set. However, the guidance, concepts, diagrams and texts contained in this Part 3 does not constitute legal advice, is not an exhaustive exploration of the matters discussed, nor is it claimed to represent a fully compliant application of SLC technology.

The concepts and texts of this use case analysis are intended to serve as a basis for discussion only. Parties interested in deploying SLC technologies are advised to seek independent legal and regulatory advice.

Regulatory Considerations: Key additional factors related to the application of SLC technology in this use case:

- As underscored in Part 2 above, it is important that clients understand in advance that certain steps in the execution of the use case will proceed automatically.
- One must consider whether a particular SLC is carrying out reserved legal activities without human supervision and if said automation is allowable under the Legal Services Act 2007. If so, the SLC author may consider the use of human review and approval steps in the execution of certain types of automation.
- Anyone providing human review for semi-automated reserved activity must be an authorised person for the service in question or their involvement needs to be such as to fall within the exemptions identified in Schedule 3 of the Legal Services Act 2007.

Discussion: In its focus group interviews and in dialogue with its LawtechUK advisory panel, Hunit found a justifiable reluctance to place contractually significant actions or tasks into fully automated technical frameworks. These findings support SLC drafting practices that use well-crafted verification steps to provide efficient and predictable controls over automated SLC activity by appropriate parties. This use case example incorporates such steps at each juncture and, in so doing, places the final outcome of the escrow facility firmly in the control of the Buyer, Seller and Escrow Agent.

This portion of the assessment of the practical application of Smart Legal Contract technology to the active legal sector contains an investigation of how an SLC can be used for the purpose of providing an escrow facility for the purchase and sale of a commercial vessel.

The escrow agreement detailed in this use case is made between three parties: buyer, seller, and escrow agent. While the automation afforded by an SLC renders the role of the escrow agent obsolete from the

perspective of simple management of the escrow steps, the role remains critical for the execution of this type of escrow facility. An SLC, for example, would not be able to determine when a final, unappealable ruling had been issued in response to a dispute that had arisen. Additionally, documentation specified under the conditions precedent for the release of funds may be delivered in any number of formats by external parties. The world at large is not (yet) fully interconnected via structured data exchanges and the subjective ability for a human agent to determine when and if certain events have occurred is indispensable. Additionally, the removal of the escrow agent raises the important, and as yet unresolved, question of liability in the event of mis-execution of the escrow facility. So, while the escrow agent is relieved of the management of simple executorial tasks, the role remains central to the ability of the SLC to perform its intended function.

This use case was selected as it demonstrates how an already procedural process can be enhanced through thoughtful use of automation while still maintaining the flexibility to resolve a myriad of potential outcomes as the buyer and seller attempt to conclude upon their desired transaction.

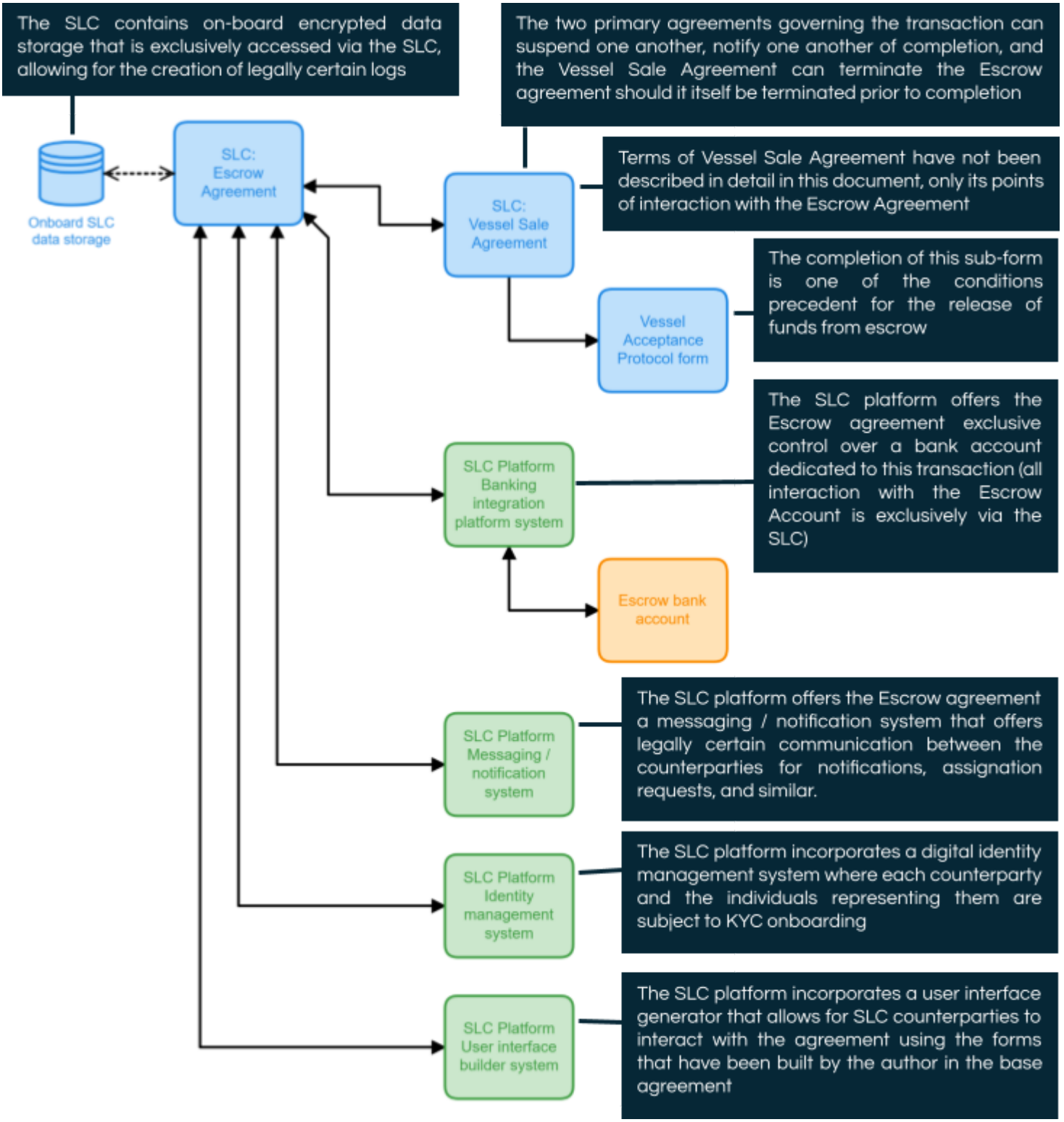
While the use case does refer to a vessel sale agreement (which itself is assumed to be an SLC), the focus of this section is on the escrow agreement. Accordingly, the detailed terms of the vessel sale agreement are not described. However, the technical interaction between these two SLCs is critically important to the function of the escrow agreement and has been depicted in detail.

The use case has been divided into 3 sections, each explaining a distinct layer of the overall use of an SLC in this application.

Section	Contents	Goal
SLC Diagram: Objects	Overview of the network systems, features and objects needed for the escrow agreement SLC to function as described	Explain the technical ecosystem that make the SLC possible
SLC Diagram: Logic	Function-by-function schematic descriptions of the logic embedded in the escrow agreement SLC	Explain how the SLC automation functions
SLC Text	The complete natural language version of the SLC based escrow agreement with graphical depictions and annotations of how automation is inserted	Demonstrate how SLC automation is inserted into natural language text

2. SLC Diagram: Objects

The following schematic describes the overall technical ecosystem that enables this example SLC escrow agreement to function. In it, blue denotes objects that exist in a multi-node distributed ledger network, green denotes objects provided by the SLC platform provider (but which are not DLT based) and orange represents external 3rd party based services.

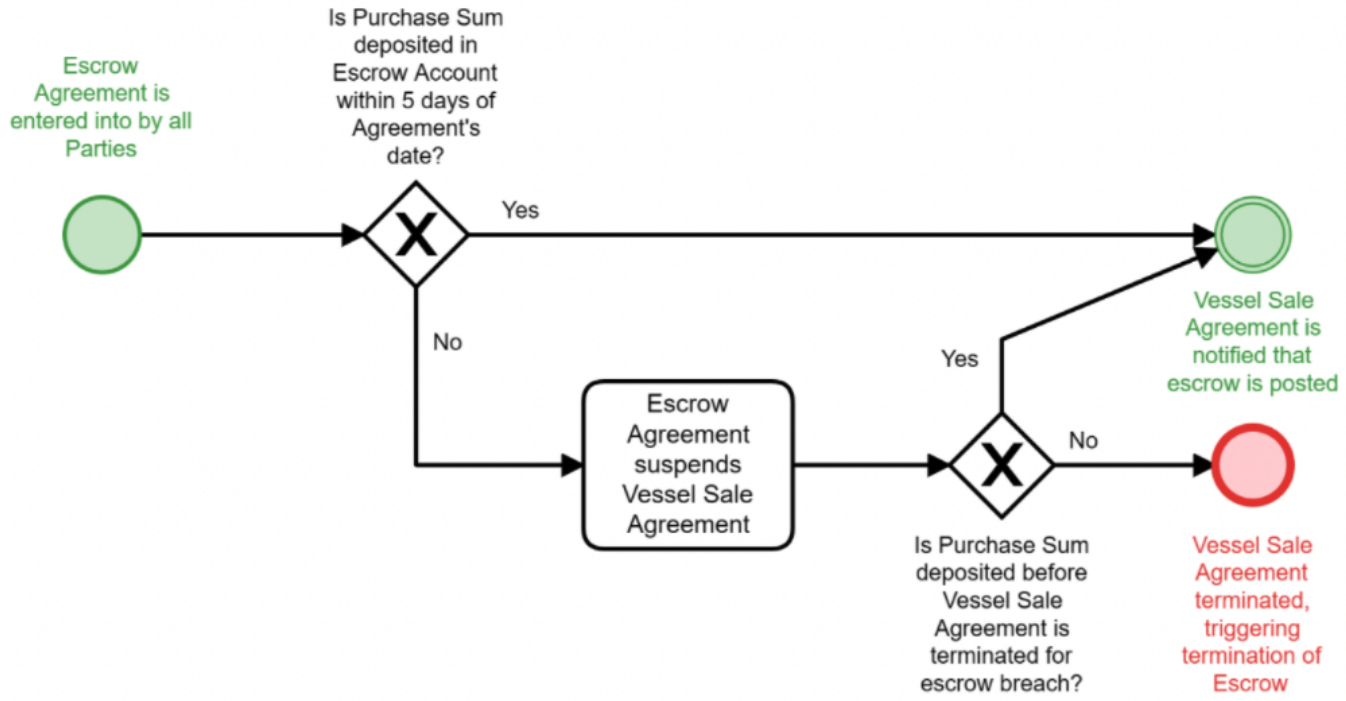


3. SLC Diagram: Logic

This portion of the examination into the practical application of SLC technology contains a series of schematics representing the flow of the SLC escrow agreement's primary embedded automation. Each segment represents an individual function of the SLC and roughly corresponds with a single section of the SLC text located in the following section 4 below. However, the observant reader will identify that there exists a number of interaction points between the individual functions that, for reasons of clarity, are not represented here. For example, the end point of the automation described in Section 3.1 (depositing the escrow sum) is the same as the starting point for Section 3.2 (potential outcomes while escrow is held). Additionally, Section 3.2 describes automation logic that is also used, in part, to determine the ending date of the escrow agreement's term and is therefore also described in Section 3.6 (starting and ending the agreement's term), but which constitutes a single set of automation logic used by the SLC for these two purposes.

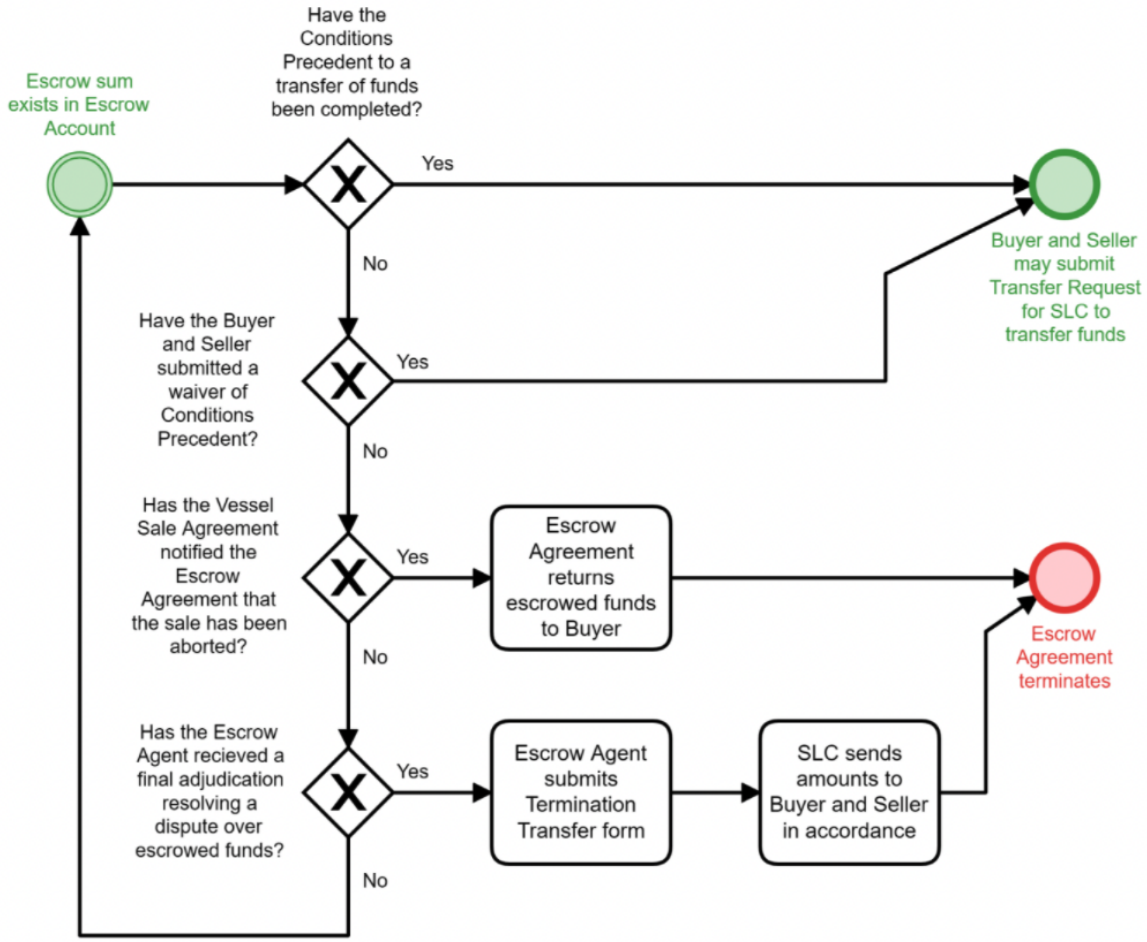
3.1. Depositing of the escrow sum

Corresponding with Clause 4 of the SLC escrow agreement, the Buyer is allowed 5 days from the date upon which the agreement is signed by the final party to deposit the agreed purchase amount into the bank account that is provided by the SLC itself for this purpose. If this doesn't occur, the escrow agreement notifies the separate vessel sale agreement that the escrow terms are in breach, thus suspending the vessel sale agreement and starting a specified cure period. Should that cure period pass without the purchase sum being posted to the escrow account, the vessel sale agreement will terminate, which in turn triggers the termination of the escrow agreement.



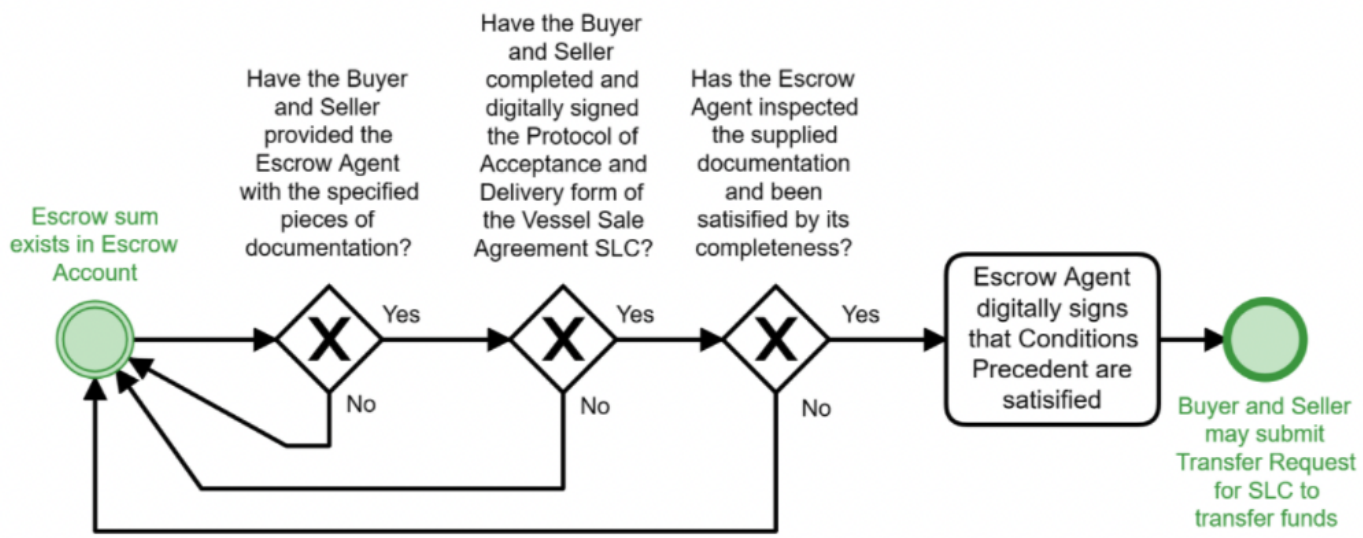
3.2. Potential outcomes while escrow is being held

This automation segment corresponds with terms that are described in Clauses 5, 6, 7, and the forms found in Schedule 1 of the SLC escrow agreement. It describes the four ways in which escrowed amounts can be disbursed to the Buyer and/or Seller depending on the events that occur following the posting of the escrow amount. Representing a multi-endpoint SLC structure, the first of these paths describes the intended outcome of the Buyer and the Seller, which is to complete the conditions precedent (such as completing updates to the ship registry and performing technical inspections), which in turn enables the Buyer and Seller to submit the transfer request to settle the transaction. However, this automation segment also allows the Buyer and Seller to submit a transfer request by agreeing to waive the conditions precedent via form made for that purpose. In the case a negative event occurs, the remaining paths for handling the escrowed sums allow for the termination of the vessel sale agreement (where both Buyer and Seller agree in the Vessel Sale Agreement to abort the transaction) to trigger the return of the escrowed amount to the Seller or, in the event of litigation related to the transaction, for the Escrow Agent to transfer funds to the Buyer and/or Seller in accordance with its final ruling. As the integrated bank account (serving here as the escrow account) is exclusively controlled by the SLC to which it is bound, these 4 paths represent the only ways in which the SLC will allow the escrowed amounts to leave its integrated banking facility, eliminating or greatly reducing the likelihood of fraud or unintentional miss-management.



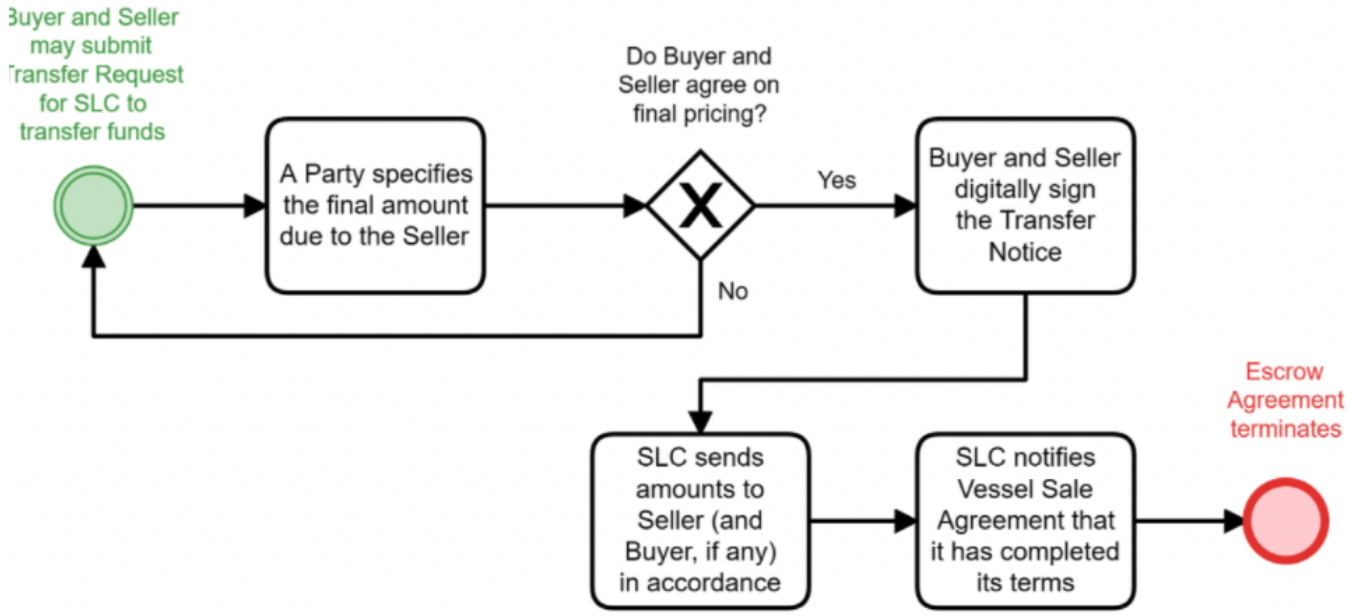
3.3. Satisfying the conditions precedent to releasing the escrow sum

This automation segment corresponds with the 'conditions precedent to the transfer form' found in Schedule 1 of the SLC escrow agreement. This automation begins at the point when the escrow sum has been deposited by the Buyer in the SLC's integrated banking facility and represents the ideal desired path described in the top-most section of the schematic in Section 3.2 immediately above. Based on the form contained in Schedule 1 of the SLC, it represents a structured and auditable process for providing the Escrow Agent with the documentation needed for that entity to safely fulfil its purpose in the transaction. The form allows each of the specified documents to be uploaded to the SLC's on-board data storage, meaning that they can be provided to the Escrow Agent in nearly any digital or paper-based format (for scanning). Additionally, the form contains a link to the 'protocol of acceptance and delivery' form contained in the vessel sale agreement, allowing one of its conditions precedent to be its completion (signalled by the digital signatures of both the Buyer and Seller on that protocol). Once all of these steps have been completed, the Escrow Agent may digitally sign that this process has been concluded, allowing the Parties to submit a 'transfer form' to execute final payment and bring the escrow agreement to the end of its term.



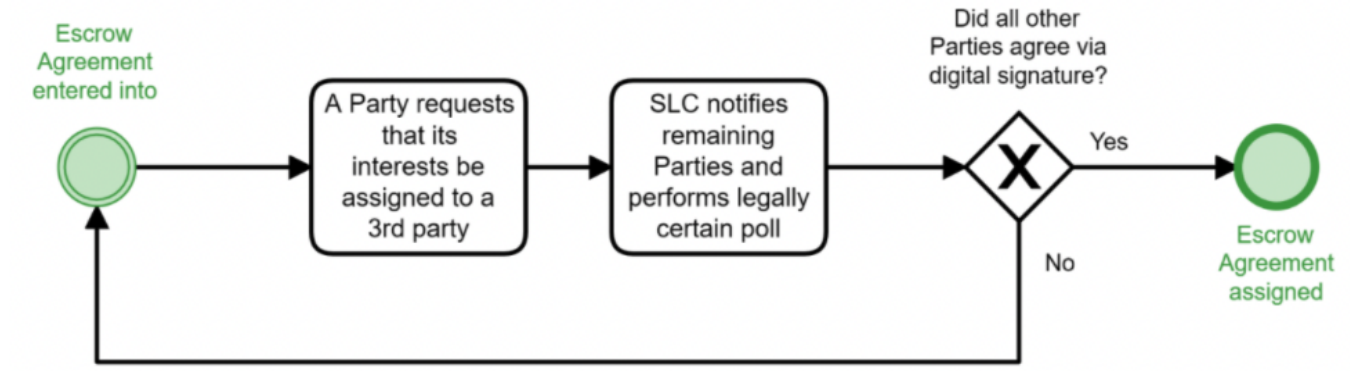
3.4. Closing the transaction with a payment to the seller

This automation segment corresponds with the 'transfer form' found in Schedule 1 of the SLC escrow agreement. This automation begins when Escrow Agent has digitally signed that the conditions precedent for the transaction have been completed (as described in section 3.3 immediately above). In this portion of the SLC's automation, the Buyer and the Seller are able to set the final transfer amount (in the case that technical inspections have uncovered any faults that warrant an adjustment to the purchase price) and complete the transfer of the corresponding amount(s) to the Seller (and Buyer, if any escrowed sum remains). At the time of transfer, the SLC escrow agreement notifies the vessel sale agreement that payment has been concluded (allowing it to record the conclusion of the transaction and perform any post-payment steps) and triggers the end of its term.



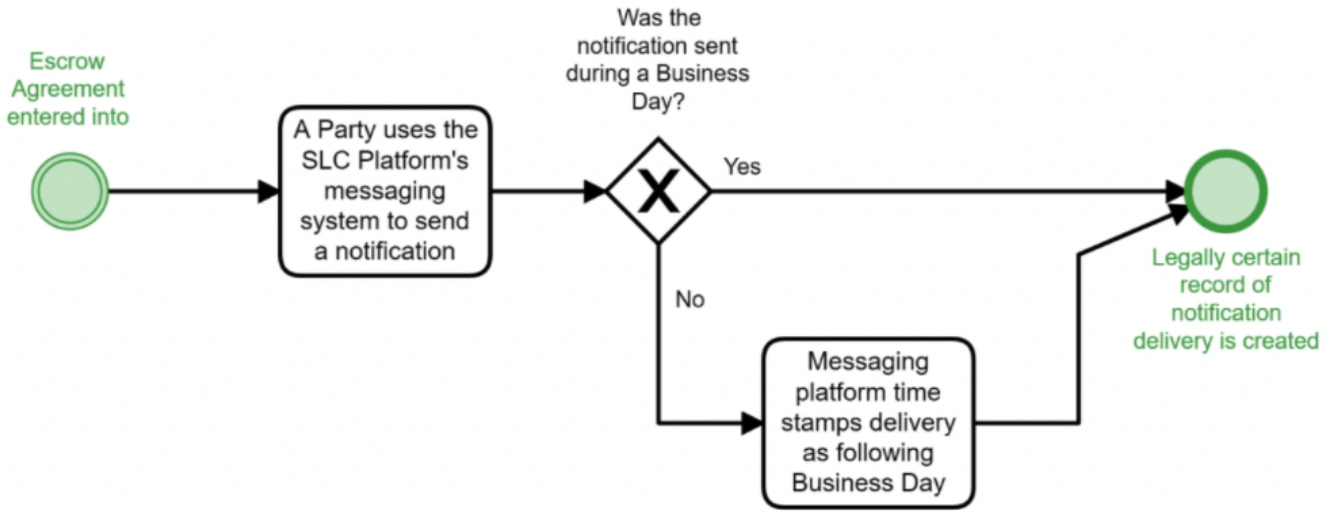
3.5. Assigning the agreement

This segment of automation corresponds to Clause 8.2 of the SLC escrow agreement and allows for a party to request and be granted the assignment of its interest in the agreement to its specified external party. It makes use of the SLC platform's messaging and polling systems to perform its human interactions.



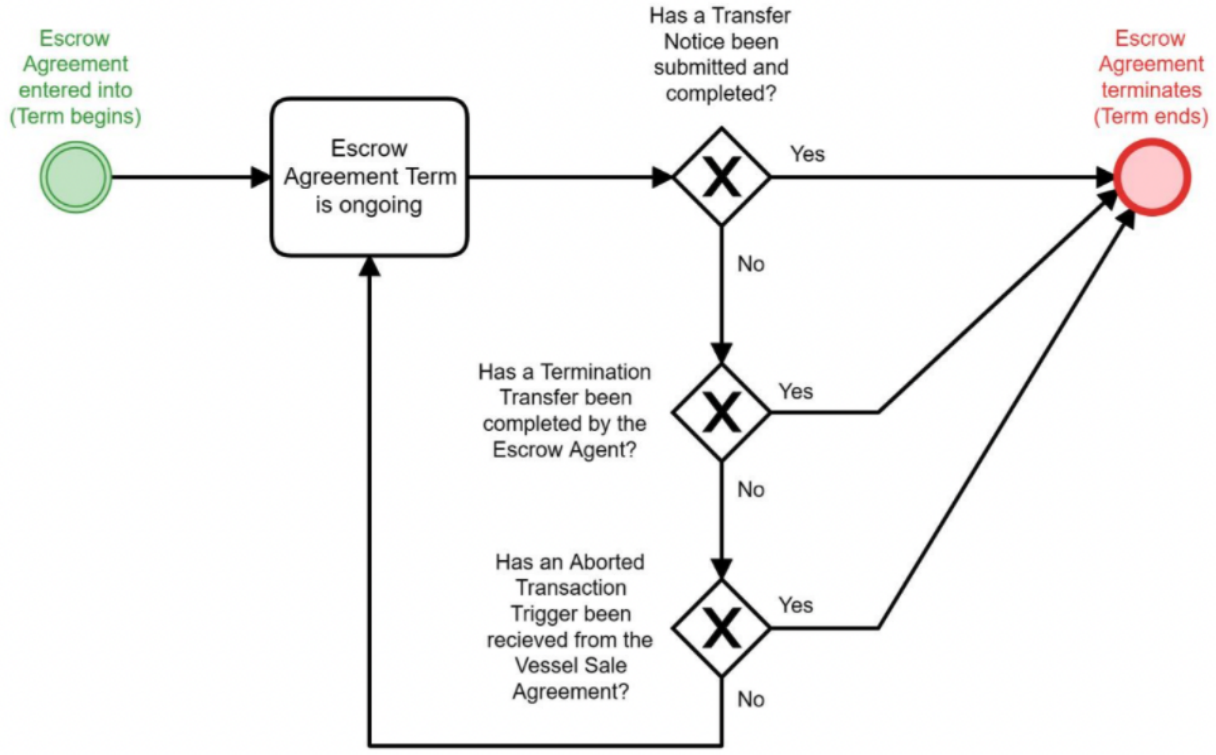
3.6. Sending legally certain contract notifications

This segment of automation corresponds with Clause 9 of the SLC escrow agreement and allows the parties to send one another messages of contractual significance with legally certain and auditable records of delivery. It makes use of the SLC platform messaging service in performing its function.



3.7. Starting and ending the agreement's term

This segment of automation corresponds with Clause 10 of the SLC escrow agreement and defines when the SLC has entered into and ended its term. As noted in the introduction to this section, the end of the escrow agreement's term is determined by the completion of automation that is also used for other functions within the SLC.

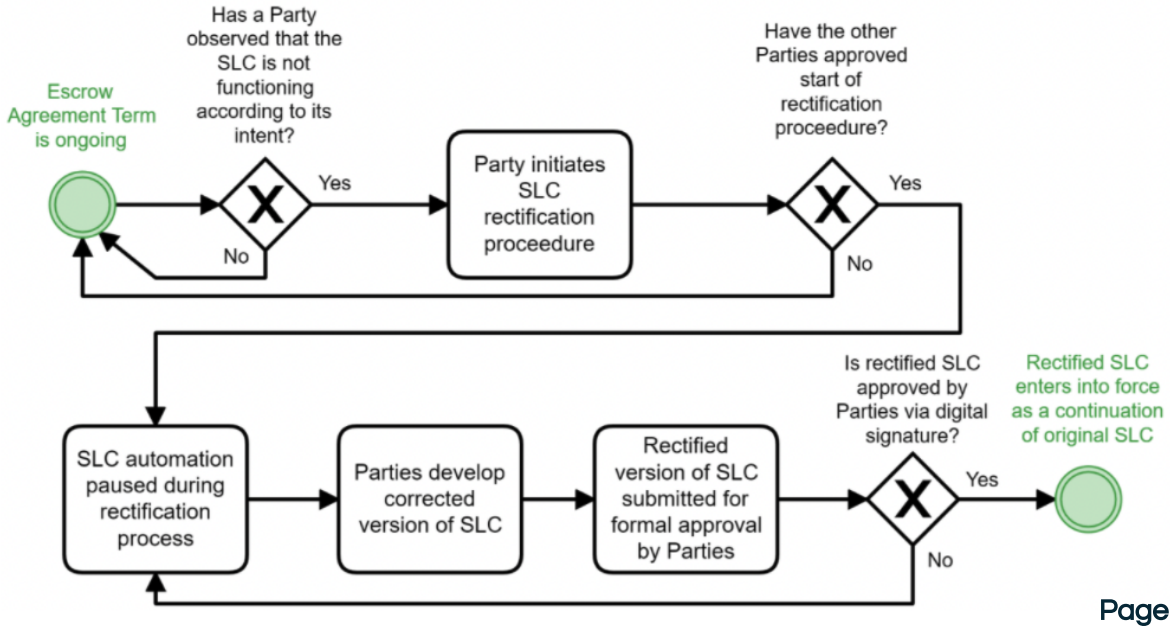


3.8. Rectifying an SLC

This segment of automation corresponds with Clause 11.2 of the SLC escrow agreement and defines the procedure through which the SLC undergoes rectification at the request of a party or on the behest of a party acting in accordance with a court order. As discussed in Section 1 of this document set, the ability to facilitate a rectification process is a critical element in assuring that the use of SLC technology complies with today's legal and regulatory framework and it is assumed that this 'boilerplate' automation would be included in all or substantially all documents recorded as SLCs. In its function, a party that has reasonably observed that the SLC is failing to function according to its intent (or if a court finds that its intent was unlawful or non-compliant from the outset) is able to request a rectification procedure. The automation's initial step is to prevent abuse of this feature by notifying and seeking the approval of the specified number of SLC counterparties (using the SLC platform's messaging and polling systems).

If counterparties deny the start of rectification procedure, the requesting party would be able to seek rectification from a court of competent jurisdiction. This is facilitated by the requesting party's ability to unilaterally grant an officer of the court full viewing rights into the SLC (see 'Privacy Settings' following Schedule 2 in the full SLC agreement text below) to enable the court's ruling. Upon a court's determination that a rectification process is warranted, it would be able to issue an order, under penalty of civil contempt, to the unwilling party(ies) to approve the rectification request.

Upon receiving approval from the requisite parties (willing or court mandated), the SLC's automation is halted while the parties produce a corrected version of the base document. This workflow could proceed in a manner similar to the drafting of the original document where the base SLC file can be emailed or edited using conventional collaborative workspaces. The corrections can constitute modifications to the embedded automation or to the natural language text (or both). Once the parties (and/or court) is satisfied with the corrected version of the base SLC document, this corrected version is uploaded to the SLC platform for re-ratification by the agreement's parties, at which point it becomes the effective legal document. However, this change-over is performed as an extension to the original SLC document, meaning that the elements such as start dates, activity logs and other artefacts of the execution of the original SLC persist under the rectified version.



4. SLC Text

This final portion of the examination of the practical application of SLC technology contains the full, unabridged natural language text of the example SLC escrow agreement. It uses graphical mark-ups to illustrate where and how the automation described above is inserted within and connected to the natural language terms.

Despite this use case being selected due to its extensive use of automation, one finds many portions of the natural language text have no programmatic associations but nonetheless contemplate matters of legal importance. While these sections are critical for the performance of the SLC escrow agreement under law, they do not offer opportunities for functional automation.

This example SLC makes extensive use of its initial definition section, where it creates programmatic associations between defined terms and their underlying meaning (whether that be monetary sums, bank accounts, inter-SLC API triggers or others). Subsequent SLC automation then uses these programmatically defined terms in its logic, simplifying its set-up and rendering it easier for the parties, officers of the court or external observers to understand the agreement's intention and its implementation of automation. However, this is a stylistic consideration and would not be required of the original author, who could alternatively choose to incorporate the underlying meanings of the defined terms directly in the subsequent automation. As always in the practice of law, one finds a tremendous diversity in the mannerisms and styles used by legal practitioners in crafting legal instruments – which an SLC platform would ideally be able to accommodate.

While the initial configuration of SLC automation requires the investment of additional time (over a purely natural language analogue agreement), the use of 'offline' SLC editing tools such as Hunit's Hunit for Word add-in allow for the infinite reuse of a model document once it has been developed. Whether this may be through re-saving a locally stored .DOCX file and updating basic details or using sophisticated document templating systems, the extra up-front investment is quickly recouped via reduced contract execution costs, diminished potential for fraud, and eliminated opportunities for unintentional mismanagement.

Please note that the graphical mark-up styles are not indicative of any particular SLC platform and have been created solely for the purpose of this document.

Visual Guide:

▸ACTION◂	An interactable button that can be used to initiate human-input dependent SLC automation
Defined Term	A programmatically defined term subsequently used in SLC automation
╠EXTERNAL DATA╣	A link to an external data source used by SLC automation
▸INFORMATION◂	Information that is automatically retrieved / provided by SLC automation to the natural language text
╠TERM╣	A term being defined for subsequent use by SLC automation
╠VALUE╣	A value found in the agreement text that is used in the execution of SLC automation

Dark Blue boxes contain annotations that describe the type of automation 'formula' (or functional programmatic unit) employed, the variables that must be identified in the SLC text to allow them to function and short explanations of context. However, please refer to section 3 above for detailed description of the automation flow.

ESCROW FACILITY FOR THE PURCHASE PRICE OF A VESSEL

THIS AGREEMENT, SLC agreement number SLC ID, is made on DATE, EVENT DETERMINED (the Date) between:

In this representation, the indicated blue terms are being programmatically defined for use in SLC automation. Here, the Agreement is being defined using the unique SLC identifier that is generated upon upload to the SLC platform for signature. Additionally, the title of the agreement ("Escrow Facility…") is associated with the SLC ID so as to aid the management of a library of agreements. Equally, the Date is being defined in accordance with the logic that records the day upon which the SLC entered into force (in this case, the day of its last signature)

The Parties, to this Agreement are:

A. DIGITAL ID #, COMPANY NAME, a company incorporated in COUNTRY and having its registered/principal office at ADDRESS (the Buyer,)

B. DIGITAL ID #, COMPANY NAME, a company incorporated in COUNTRY and having its registered/principal office at ADDRESS (the Seller,); and

C. DIGITAL ID #, COMPANY NAME, a company incorporated in COUNTRY and having its registered/principal office at ADDRESS (the Escrow Agent,)

In this portion of the document, the participants in this agreement are being identified by their digital ID (which carries individual KYC verification data) and being associated individually with their roles in the SLC and generically as Parties to it. By identifying the digital ID, the SLC is able (once permission is granted by the owner of the digital ID) to retrieve information such as the company's name and address. Should these details change during the course of the SLC's term, the updated information contained in the company's digital ID will appear in the SLC.

WHEREAS:

Buyer and Seller are parties to a supplemental agreement for the sale and purchase of a commercial maritime vessel pursuant to which Buyer will deposit in the Deposit Sum in the Escrow Account in accordance with this Agreement.

1. Definitions

In this Agreement the following words and expressions shall have the following meanings:

"**Aborted Transaction Trigger**" means the system through which the Vessel Sale Agreement notifies this Agreement that it has been terminated or cancelled prior to the completion of its terms here: **SLC API address & message**;

> The 'Aborted Transaction Trigger' allows the Escrow Agreement to interact with the Vessel Sale Agreement via a unified API interface where the SLC ID and pre-determined message payloads can be used to trigger actions between the SLCs. In this case, the Buyer and Seller agreeing to the termination of the Vessel Sale Agreement prior to the transaction results in a notification to the Escrow Agreement that is used to the return of escrowed funds as specified in Clause 7 and terminate the Escrow Agreement by triggering the Termination Date as defined in Clause 1
>
> In this graphical representation, the SLC API information is described in green, including the message payload that would result in the Escrow Agreement understanding that the Vessel Sale Agreement had been aborted pre-completion.

"**Seller Bank Account**" means the **bank account** which appears in **Form 5** of Schedule 2 as may be updated from time to time by Seller.

"**Business Day**" means **between 8:00am and 5:00pm** on a **non-holiday weekday** under the standard **timezone and calendar of the United Kingdom**;

> This definition of a 'Business Day' includes a link to an external data source (or 'oracle') that specifies the time and working-day calendar for the United Kingdom. Should this agreement be used in a different jurisdiction, similar oracles can be employed to define a 'Business Day' in that context.

"**Conditions Precedent to Transfer Notice**" means the notice as set out in **Form 1** of Schedule 1 signed by the Escrow Agent only upon having received, reviewed, and recorded the documentation specified therein;

> This definition is tied to the an interactable form that is built using Hunit for Word's form-building functionality

"**Deposit Sum**" means **no less than** **GBP 50,000,000**;

"**Buyer Bank Account**" means the **bank account** which

appears in **Form 6** of Schedule 2 as may be updated from time to time by Dispositor.

"**Escrow Account**" means the non-interest bearing account accessible at **IBAN NUMBER**;

> In Hunit's iteration of SLC technology, adding embedded banking facilities to an SLC is achieved through a specific definition type that inserts this information into the SLC text. The IBAN number is provisioned by Hunit's underlying technical platform and, through subsequent use of the defined term 'Escrow Account', the SLC author may construct automation for the handling of funds in the global banking system.

"**Escrow Deposit Notice**" means the system through which this Agreement notifies the Vessel Sale Agreement that the Deposit Sum has been received, which is available here: **SLC API address & message**;

> As per the above notation, the integration of the Escrow Agreement and the Vessel Sale Agreement allows the Escrow Agreement to notify the Vessel Sale Agreement when key events (such as the posting of Escrow) have been completed.

"**Escrow Term Notice**" means the system through which this Agreement notifies the Vessel Sale Agreement that it has **completed** its **Term** and which is available here: **SLC API address & message**;

"**Escrow Terms, Conditions and Fees**" means the terms, conditions and fees upon which the Escrow Agent provides escrow services as current at the **Date** of this agreement and which may be found here: **escrow terms, conditions and fees**;

This definition includes a reference to a separate set of terms and fees related to the use of the Escrow Agent's services. This external agreement could be represented as either a separate SLC (in which case the external link would include reference to that specific SLC ID number) or a web based consent form as is often used for standardised service terms today.

"**Protocol of Acceptance and Delivery**" means the portion of the Vessel Sale Agreement which describes the procedures, terms and conditions through which the Buyer accepts that the vessel is in conformity and agrees to take legal title thereto. The completion of the Protocol of Acceptance and Delivery may be verified by this Agreement here: **SLC API address & message**;

"**SLC Platform**" means the Smart Legal Contract technology platform upon which this Agreement is recorded

With some irony, the "SLC Platform" does not need a programmatic definition. However, the use of the SLC Platform by the Parties is governed by separate SLCs entered into between the SLC platform provider (in this case, Hunit) and the individual Parties. These service agreements specify the terms of use of the SLC platform and the costs associated with said use.

"**Termination Date**" means the date upon the **first to occur**: i) the **Transfer Notice** is **completed** by the Buyer and Seller; ii) a **Termination Transfer** is **completed** by the Escrow Agent; or iii) an **Aborted Transaction Trigger** is **received** from the Vessel Sale Agreement;

In this definition, the Termination Date is determined by the first to occur of other defined events, in this case the three events that would conclusively indicate that the transaction has been completed, successfully or not.

"**Termination Transfer**" means the notice as set out in **Form 4** of Schedule 1 signed by the Escrow Agent only upon having received a final and non-appealable adjudication from a relevant court of law or binding arbitration process;

"**Transfer Amount**" means the amount, set out in a **Deposit Transfer Notice** as being the amount to be transferred;

"**Transfer Notice**" means a notice as set out in **Form 3** of Schedule 1 signed on behalf of Seller and Buyer;

"**Vessel Sale Agreement**" means the agreement **SLC ID** ▸SLC AGREEMENT NAME◂ which the Parties have entered into and which relates to the purchase and sale of a commercial maritime vessel.

"**Vessel Sale Agreement Completion Notice**" means the system through which the Vessel Sale Agreement may notify this Agreement that it has completed its term**:** **SLC API address & message**;

"**Vessel Sale Agreement Suspension Trigger**" means the system through which the automated execution of the Vessel Sale Agreement may be suspended in response to a state of breach of this Agreement and which is available here**:** **SLC API address & message**;

"**Vessel Sale Agreement Resumption Trigger**" means the system through which the automated execution of the Vessel Sale Agreement may be suspended in response to a state of breach of this Agreement and which is available here**:** **SLC API address & message**;

"**Waiver of Conditions Precedent**" means a notice as set out in **Form 2** of Schedule 1 signed on behalf of Seller and Buyer;

2. Use of SLC Platform

2.1. The Parties agree to the use of the SLC Platform for the purposes of recording and executing this Agreement.

2.2. The Parties agree and acknowledge that SLC Platform handling of the Deposit Sum on behalf of the Seller and the Buyer constitutes use of a "Third Party Managed Account" service as defined by Rule 11 of the SRA Accounts Rules. As such, use of the SLC Platform in this role may preclude certain statutory protections as may be otherwise be afforded

under Rule 2 of the SRA Accounts Rules pertaining to handling of "client money".

3. The Escrow Services

3.1. The Parties hereby appoint and instruct the Escrow Agent to act, and the Escrow Agent acknowledges that it has been appointed and will act, as escrow agent subject to the conditions and on the terms of this Agreement.

3.2. The Parties acknowledge and agree that the Escrow Agent's services are subject to the Escrow Terms, Conditions and Fees, incorporated herein by reference, which the Parties acknowledge and agree to by entering into this Agreement.

4. Escrow Monies

This Clause 4 (concerning the posting of the escrow Deposit Sum) demonstrates how an SLC can use a set of defined terms within subsequent logic to produce complex outcomes based on simple programmatic configuration.

4.1. The Buyer shall, **within 5 Business Days** of the **Date** of this Agreement, **deposit** the **Deposit Sum** in the **Escrow Account**.

Clause 4.1 verifies that the Deposit Sum has been deposited with a specified amount of time. If not, a state of breach is triggered for 4.1

Automation Formula: Escrow-Deposit
Variables required: due date, amount, destination account

4.2. If the Buyer is in breach of **Clause 4.1**, the breach shall persist until the Buyer has **deposited** the **Deposit Sum** in the **Escrow Account**.

If Clause 4.1 is in breach, Clause 4.2 uses two 'stacked' automation formulas to establish how the state of breach can be ended

Automation Formula type: Breach-End

Variables required: breach origination, end event

The end event is defined as:

Automation Formula: Banking-Deposit
Variables required: due date, amount, destination account

4.3. This Clause 4 (concerning the posting of the escrow Deposit Sum) demonstrates how an SLC can use a set of defined terms within subsequent logic to produce complex outcomes based on simple programmatic configuration.until the Buyer has ╠**deposited**╣ the ╠**Deposit Sum**╣ in the ╠**Escrow Account**╣.

Clause 4.3 instructs the SLC to notify the Vessel Sale Agreement that the Deposit sum has been deposited upon the completion of either Clauses 4.1 or 4.2

Automation Formula: API Trigger-Or
Variables required: trigger events, API + message payload

4.4. Upon ╠**completion**╣ of ╠**Clause 4.1**╣ or ╠**Clause 4.2**╣, this Agreement shall notify the Vessel Sale Agreement that the Deposit Sum has been deposited in the Escrow Account using the ╠**Escrow Deposit Notice**╣.

Clause 4.4 uses stacked automation formulas to instruct the SLC to notify the Vessel Sale Agreement that the Buyer is in breach of its obligations to post the Deposit Sum, allowing the Vessel Sale Agreement to trigger internal automation such as starting a countdown timer to termination for breach of escrow terms

Automation Formula: If-Breach
Variables required: clause in breach, automation to trigger

Automation to trigger:

Automation Formula: API Trigger-And
Variables required: trigger event(s), API + message payload

If the Buyer is in breach of **Clause 4.1**, the **Vessel Sale Agreement Suspension Trigger** will suspend the Vessel Sale Agreement

> Clause 4.5 instructs the SLC to notify Vessel Sale Agreement that a breach of the escrow deposit terms has been cured, allowing it to resume the completion of the transaction. It further specifies (in the natural language text) that it only applies if the cure occurs prior to the Vessel Sale Agreement triggering a termination of the Escrow Agreement (which would presumably occur if the escrow terms are not complied with for an extended amount of time).
>
> Automation Formula: If-Cure
> Variables required: clause in breach being cured, automation to trigger
>
> Automation to trigger:
>
> Automation Formula: API Trigger-And
> Variables required: trigger event(s), API + message payload

4.5. If a breach of the Buyer's obligation to deposit the Deposit Sum in the Escrow Account as described in **Clause 4.1** is cured prior to the Termination Date of this Agreement, the **Vessel Sale Agreement Resumption Trigger** will reactivate the Vessel Sale Agreement for its completion.

5. Conditions to the Submission of a Transfer Notice

5.1. A **Transfer Notice** may be completed and submitted by the Seller and Buyer to the Escrow Agent upon the completion of **Conditions Precedent to a Transfer Notice** or a **Waiver of Conditions Precedent**.

> Clause 5.1 demonstrates how a conditions precedent automation formula may be used to unlock SLC functionality upon the completion of specific events. In this example, the conditional logic enables the submission of a Transfer Notice form upon the completion of one of two conditions precedent
>
> Automation Formula: Conditions Precedent-Or
> Variables: Automation enabled, enabling event(s)

6. Termination Transfer

6.1. In the event that the Seller and/or the Buyer provide the Escrow Agent with a final, unappealable adjudication from a court or binding arbitration process of competent authority that specifies that specific sums held in the Escrow Account shall be transferred to the Seller and/or the Buyer, the Escrow Agent shall, after having performed verifications of the authenticity and finality of the provided adjudication to its reasonable satisfaction, complete a Termination Transfer.

> Clause 6.1 does not contain any automation as the Escrow Agent has the ability to execute, at its discretion, a Termination Transfer at any time after escrow has been posted. In a smart legal contract (as opposed to a smart contract), the threat of legal penalty for inappropriate use of the Termination Transfer by a regulated agent such as an escrow provider mitigates the risk of inappropriate use of this SLC function. Additionally, a final unappealable ruling could come in any number of forms and the SLC needs the Escrow Agent's professional discretion to determine when and if such a ruling has been issued.

7. Aborted Transaction Transfer

7.1. In the event that this Agreement receives an **Aborted Transaction Trigger** from the Vessel Sale Agreement to terminate this Agreement and the **Buyer** has made a deposit to the **Escrow Account**, the amount deposited, less any fees as may be applicable, shall be refunded to the **Buyer** without delay.

> Clause 7.1 combines the use of If-And conditional automation to trigger the return of escrowed funds to the depositor in the case that the sale of the marine vessel is aborted after sums have been paid into the escrow facility
>
> Automation Formula: If-And
> Variables: if event, and event(s), automation to trigger
>
> Automation to trigger:
>
> Automation Formula: Escrow-Return
> Variables: trigger event, party(ies) having their escrow amount(s) returned.

8. Benefit of Agreement

8.1. This Agreement shall be binding upon and inure to the benefit of each Party and its successors and permitted assigns.

8.2. A ╠**Party**╣ may assign or transfer its rights or obligations under this Agreement upon the prior written consent of ╠**all**╣ other ╠**Parties**╣ as expressed as a digital signature accepting such a request. ▸**CLICK HERE TO REQUEST ASSIGNATION**◂;

> Clause 8.2 uses 'boilerplate' automation that is likely to appear in an SLC to establish the procedure for assigning interest in this agreement to a third party
>
> Automation Formula: Assignment
> Variables: which party(ies) may request, which party(ies) approve(s)

9. Notices

9.1. All notices given under this Agreement shall be made in writing exclusively using the messaging functionality included in this Agreement, shall be digitally signed by the Party giving it, and shall be made in English. ▸**CLICK HERE TO SEND NOTICE**◂

> This clause makes use of SLC platform messaging capabilities for the submission of contractually important notifications. These messages are subject to DLT based (indelible) record keeping, eliminating variable interpretation of when or how notifications were submitted.

9.2. In the event that a notice given under this Agreement is accompanied by additional documentation, such accompanying documents much be in English or, if so required by the Escrow Agent, accompanied by a certified English translation and, in this case, the English translation will prevail unless the document is a constitutional, statutory or other official document.

9.3. Any notices sent during a ╠**Business Day**╣ shall become effective ╠**upon**╣ its delivery to the recipient's messaging inbox provided by the SLC Platform. Any notices sent not during a Business Day shall be deemed to become effective on the ╠**subsequent**╣ Business Day.

This Clause 9.3 defines when a contractual notice is deemed to have been delivered based on the earlier definition of a Business Day.

Automation Formula: Notice Delivery Adjuster, Single Jurisdiction
Variables: working period, when effective during working period, when effective outside working period

10. Termination

10.1. The ╠Term╣ of this Agreement shall begin on the ╠**Date**╣ and shall end on the ╠**Termination Date**╣,

10.2. ╠**Upon**╣ the ╠**Termination Date**╣, the ╠**Vessel Sale Agreement Completion Notice**╣ will notify the Vessel Sale Agreement that this Agreement has completed its Term.

11. General

11.1. In the event that any due date or obligation specified in this Agreement falls on a non-Business Day, said due date or obligation will be shifted to the ╠**next following**╣ **Business Day.**

11.2. In the event that a ╠**Party**╣ reasonably believes that the Agreement is incorrectly executing its terms or that it is suffering any other technical or legal fault that prevents it from accurately executing upon the intended terms of the Parties, said Party shall have the right to request the initiation of a rectification process. Upon such a request, the ╠**Parties**╣ to the Agreement shall be notified and will have ╠**5 Business Days**╣ to approve or reject the rectification request notice, the approval of which shall be done by ╠**unanimous**╣ decision. In the event that a Party fails to respond to a rectification notice within the time allotted, it shall be deemed to have ╠**agreed**╣ to the rectification process. Upon approval of a rectification process, the Agreement will temporarily halt the automated execution of its terms on the SLC Platform. However, this cessation of the Agreement's automated execution does not relieve the Parties, temporarily or permanently, from their duties, roles and obligations as described in this Agreement, which they shall continue to faithfully discharge as if the original, unrectified form of the Agreement entered into force with no such automated execution functionality. During the rectification process, the Parties

shall on a collaborative basis propose and agree the Agreement modifications that they reasonably believe will correct the function of the Agreement's automation. The rectification process shall conclude upon the **unanimous** approval of a replacement version of this Agreement (which may or may not include any changes to the base Agreement document), upon which the replacement Agreement shall resume its automated execution of terms as allowed by the SLC Platform.

Clause 11.2 contains another 'boilerplate' automation that is deemed to be a critical feature for SLCs. It contains a purpose-built automation formula which establishes the programmatic approach to the rectification of the SLC's natural language text and/or built-in automation.

Automation Formula: Rectification
Variables: who triggers, who approves, time to approve, threshold for approval, default decision in case of non-response, threshold for approval of rectified SLC

11.3. This Agreement shall be exclusively interpreted and construed in accordance with the laws of **England and Wales**.

While Clause 11.3's programmatic element does not imply any specific automation, it allows for the identification of an SLCs jurisdiction by external systems which interact with an SLC and which may vary their service to the SLC depending on jurisdictional concerns (such as systems that process payments or handle personally identifiable data).

Automation Formula: JurisdictionID
Variables: jurisdiction

11.4. The Seller and Buyer, for the benefit of the Escrow Agent, irrevocably submits to the exclusive jurisdiction of the Courts of England and Wales in respect of any claim, dispute or difference arising out of or in connection with this Agreement, provided that nothing contained in this Clause shall be taken to have limited the right of the Escrow Agent to proceed in the courts of any other competent jurisdiction

11.5. This Agreement shall be executed in digital counterparts, all of which when taken together shall constitute one instrument.

The Parties have executed this Agreement on the date and year first written above:

Signatures	
SELLER  ▸NAME◂ ▸DATE◂	**BUYER**  ▸NAME◂ ▸DATE◂
ESCROW AGENT  ▸NAME◂ ▸DATE◂	

This signature form uses data retrieved from the definition of the agreement's Parties to automatically generate.

As corporations do not sign agreements (rather people authorised by the corporation do), the only individuals that are capable of digitally signing this SLC will be those that have been authorised by the relevant corporation to do so on its behalf.

To facilitate this approach, the SLC platform must maintain two types of digital IDs - one for legal persons and one for natural persons. The administration of which natural persons are authorised to represent a legal person in a legal agreement is performed in the digital ID record for that legal person.

Automation Formula: Signature Form
Variables: none

SCHEDULE 1

Form 1

Conditions Precedent to a Transfer Notice

SLC agreement number ▸SLC ID◂, is made on ▸DATE OF AGREEMENT◂

Pursuant to Clause 5.1 of the Agreement, the undersigned certifies that it has received and reviewed the following documentation:

1. Class and Statutory Certificates for the M/S Trana **▸UPLOAD◂** **▸STATUS◂**
2. Bill of Sale with proof of filing with the UK Ship Register **▸UPLOAD◂** **▸STATUS◂**
3. Updated Certificate of Registration for M/S Trana from UK Ship Register **▸UPLOAD◂** **▸STATUS◂**
4. The completed **Protocol of Acceptance and Delivery** **▸STATUS◂**

Submission of Conditions Precedent to a Transfer Notice is: **▸ENABLED/DISABLED◂**

ESCROW AGENT

▸NAME◂ **▸DATE◂**

The forms contained in Schedule 1 (using form authoring features offered by the SLC Platform) have been associated with programmatically defined SLC terms. This allows the form to inform the actions of the SLC's automation.

In this example, the Escrow Agent uses this form to certify and record that it has been presented with the documentation needed to enable payment from the Escrow Account to the Seller.

These external documents may be delivered in any common form to the Escrow Agent: PDF, paper (subsequently scanned), spreadsheet or other and, following review by the Escrow Agent, uploaded to the SLC for the purpose of complete and indelible record keeping.

In this example, the Protocol of Acceptance (i.e. the agreed buyer inspections of the vessel being purchased) is set up a separate SLC as it is assumed that it would govern the use of 3rd party inspection services. If no external 3rd

party inspection services are retained, such a protocol of acceptance could alternatively be expressed as a form to the Vessel Sale Agreement to be signed by the Buyer and Seller.

Upon completion of the conditions precedent, the submission of this form by the Escrow Agent is enabled, which subsequently allows the Buyer and the Seller to mutually submit a Transfer Notice (contained below).

Form 2

Waiver of Conditions Precedent

SLC agreement number ▸SLC ID◂, is made on ▸DATE OF AGREEMENT◂

Pursuant to Clause 5.1 of the Agreement, we the undersigned hereby irrevocably waive the requirement to complete the conditions precedent described in the Conditions Precedent to a Transfer Notice

SELLER	BUYER
▸NAME◂ ▸DATE◂	▸NAME◂ ▸DATE◂

In the event that the conditions of the sale evolve, the completion of this form allows for the Buyer and Seller to waive, by mutual agreement, the conditions precedent defined above.

Form 3

Transfer Notice

SLC agreement number ▸SLC ID◂, is made on ▸DATE OF AGREEMENT◂

Status of conditions for submission of a Transfer Notice:	1. **Form: Conditions Precedent to a Transfer Notice**: ▸STATUS◂ ▸DATE◂ -OR- 2. **Form: Waiver of Conditions Precedent:** ▸STATUS◂ ▸DATE◂ **Submission of Transfer Notice is: ▸ENABLED/DISABLED◂**

Pursuant to Clause 5.1 of the Agreement, the undersigned hereby irrevocably instruct the transfer of the Transfer Amount specified below to the credit of the Seller. The undersigned furthermore instruct the transfer of any remaining deposit amounts to the Buyer as specified below:

Transfer from the ╠Escrow Account╣ to ╠Seller Bank Account╣ : **▸UPPER LIMIT DEFINED BY ESCROW ACCOUNT BALANCE◂**	**Transfer from the ╠Escrow Account╣ to ╠Buyer Bank Account╣ :** **▸REMAINING AMOUNT ON DEPOSIT, IF ANY◂**
SELLER ▸NAME◂ ▸DATE◂	**BUYER** ▸NAME◂ ▸DATE◂

This form is executed by the Buyer and the Seller together to execute the transfer of all or part of the Deposit Sum.

Using form-builder logic that includes conditional submission, the Transfer Notice is only actionable in the event that either the Conditions Precedent -OR- the Waiver of Conditions Precedent have been submitted.

This form furthermore allows for the Buyer and the Seller to agree to a transfer sum that is less than the original Deposit Amount, giving these parties the flexibility to make late stage adjustments to the final purchase amount of the vessel (such as may be the case in the event that technical inspections uncover a repairable fault).

Form 4

Termination Transfer

SLC agreement number ▸SLC ID◂, is made on ▸DATE OF AGREEMENT◂

Pursuant to Clause 6.1 of the Agreement, the undersigned certifies that it has received final and non-appealable adjudication related to the Deposit Sum (or any remaining portions thereof) held in the Escrow Account. The undersigned further certifies that it has performed, to its reasonable satisfaction, a verification of the authenticity and finality of the supplied documentation.

1. **▸DOCUMENT DESCRIPTION◂** **▸UPLOAD◂** **▸STATUS◂**
2. **▸ADD ADDITIONAL DOCUMENTATION◂**

Transfer from the ╠Escrow Account╣ to ╠Seller Bank Account╣:	**Transfer from the ╠Escrow Account╣ to ╠Buyer Bank Account╣:**
▸UPPER LIMIT DEFINED BY ESCROW ACCOUNT BALANCE◂	**▸REMAINING AMOUNT ON DEPOSIT, IF ANY◂**
ESCROW AGENT	

▸NAME◂ **▸DATE◂**

This form can be used by the Escrow Agent in the event that the overall transaction has failed in an unanticipated manner and has resulted in litigation or binding arbitration between the Buyer and Seller. Upon being presented with a final unappealable adjudication, the Escrow Agent is able to upload a copy of that adjudication, specify the transfer amounts as it prescribes and, by submitting the form, execute the transfers and terminate the Agreement.

SCHEDULE 2

Form 5	
Seller Bank Account	
Bank information	**IBAN**
▸BANK INFORMATION◂	▸IBAN◂
▸CLICK HERE TO COMPLETE OR UPDATE◂	

Form 6	
Buyer Bank Account	
Bank information	**IBAN**
▸BANK INFORMATION◂	▸IBAN◂
▸CLICK HERE TO COMPLETE OR UPDATE◂	

The forms in this schedule allow the identified Parties to enter and update their bank account information for use by the SLC automation.

Initially completing or subsequently updating these forms can only be performed by the party to whom they pertain and must be completed using a digital signature process by an authorised signatory of that party. Based on the SLC's digital identity management systems, the multi-factor authentication (including biometric verification) used assures a high level of security over the specification of the counterparties' bank accounts.

While instances of so-called 'push fraud' are less likely to occur in escrow structures due to the diligence expected of the escrow agent, this approach to the management of banking information (which can be used in any SLC involving payment) virtually eliminates the possibility of fraud or negligence occurring.

AGREEMENT PRIVACY SETTINGS

Global Visibility Settings	
Party	**Visibility Level**
Parties	Full
Priority External Observers	Full
Identified External Observers	╠Full╣
Unidentified 3rd parties	╠None╣

Priority External Observers		
Party	**Digital ID**	**Authorised By**
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
▸CLICK HERE TO ADD OR REMOVE OBSERVERS◂		

Identified External Observers		
Party	**Digital ID**	**Authorised By**
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
╠DIGITAL ID #╣	▸NAME◂	▸PARTY◂
▸CLICK HERE TO ADD OR REMOVE OBSERVERS◂		

As the SLC Platform is a shared market resource, each SLC agreement must contain visibility settings to determine who, beyond its Parties, can view the agreement and its onboard records.

The Parties to the agreement are always granted full visibility settings.

Additionally, the Parties may grant viewing rights to specified 3rd parties. These include 2 levels of defined lists, those with non-configurable full viewing rights (such as the legal counsel or other agents of the Parties) and those with configurable viewing rights. Additionally, configurable viewing rights may be extended to any 3rd party that has been onboarded to the SLC Platform.

Providing viewing rights to unidentified 3rd parties may be deemed desirable in instances where SLCs are used for private market financial instruments where secondary transaction liquidity is desired.

Example viewing rights levels:
-Full
-Agreement Only (excluding performance logs)
-SLC Title Only
-None

It is important to note that SLC counterparties may add or remove ‘Priority’ or ‘Identified’ external observers independently from the other parties to the agreement. In the event that a party has initiated court-based enforcement of an SLC, this allows that party to grant viewing rights to a representative of the court without that action being subject to the agreement of a counterparty with whom there is a dispute.

AGREEMENT STATUS AND ACTIVITY LOGS

This section of the Agreement contains the automatically generated logs pertaining to the lifecycle of the SLC.

Signature			
Party	**Digital ID**	**Name**	**Date & Time**
Seller	▸DIGITAL ID◂	▸NAME◂	▸DATE&TIME◂
Buyer	▸DIGITAL ID◂	▸NAME◂	▸DATE&TIME◂
Escrow Agent	▸DIGITAL ID◂	▸NAME◂	▸DATE&TIME◂

State of Breach	
Current status of Agreement:	▸BREACH / NO BREACH◂
Historical breach events	**Date & Time**
▸BREACH EVENT (START/END) & DETAILS◂	▸DATE&TIME◂
▸BREACH EVENT (START/END) & DETAILS◂	▸DATE&TIME◂

Current Balance	
Account	**Balance**

Escrow Account	▸GBP #◂

Transaction Log	
Escrow Account	**Amount**
▸TRANSACTION TYPE & DETAILS◂	▸GBP #◂
▸TRANSACTION TYPE & DETAILS◂	▸GBP #◂
▸TRANSACTION TYPE & DETAILS◂	▸GBP #◂
▸TRANSACTION TYPE & DETAILS◂	▸GBP #◂

Notification & Messaging Log	
Communication Type	**Date & Time**
▸NOTIFICATION TYPE & DETAILS◂	▸DATE&TIME◂
▸NOTIFICATION TYPE & DETAILS◂	▸DATE&TIME◂
▸NOTIFICATION TYPE & DETAILS◂	▸DATE&TIME◂
▸NOTIFICATION TYPE & DETAILS◂	▸DATE&TIME◂

Agreement Execution Log (all)	
Clause number and Auto Covenant type	**Date & Time**

▸CLAUSE #, AUTO COVENANT TYPE, ACTION◂	▸DATE&TIME◂
▸CLAUSE #, AUTO COVENANT TYPE, ACTION◂	▸DATE&TIME◂
▸CLAUSE #, AUTO COVENANT TYPE, ACTION◂	▸DATE&TIME◂

CONCLUSION

This document attempts to demonstrate a model for the practical and compliant transformation of legal instruments into self-executing smart legal contracts. In this model, today's regulatory and legal frameworks need little or no revision to continue their relevance and usefulness while also providing safety to the sector's stakeholders and users.

While Hunit's series of customer focus groups uncovered a generalised expectation that SLC technology would fully technify the execution of all or mostly all contractual actions, Hunit found that this was largely based on a misplaced understanding of smart contract technology, rather smart *legal* contract technology.

In practice, a fully compliant application of SLC technology makes ample use of human input, where the technology instead serves to inform, facilitate, and structure human input to the completion of the agreement. Or, in other words, SLC technology structures human input so as to accentuate its benefits and minimise its associated risks. This is furthermore in line with regulatory guidance that has been developed, underscoring the importance of human oversight in the provision of regulated services (such as providing an escrow facility).

The continued importance of human input can be extrapolated into other types of legal instruments recorded on SLC technologies. The automated execution of punitive remedies, for example, may be configured to require the approval of the non-penalized party. Contractually important events, such as the reporting of performance data automatically collected by the SLC's automation, may be configured to require the approval of the reporting party – as may also be the case for actions such as the disbursement of automatically calculated payments.

Through the use case example, Hunit demonstrates a model for the practical and compliant digitalization of legal instruments that, instead of attempting to eliminate the role of human input, serves to maximise its efficient use. The human mind is as yet indispensable to the safe, efficient and compliant execution of legal agreements. It's intellectual flexibility and ability to decipher complex and novel situations has no parallel within the technical sphere. By basing an SLC's enforceability on the legal authority of the courts (rather than on code), SLC technology is able to harness the power of the human intellect in ways that are unavailable to smart contracts and, by extension, the decentralised financial sector. Legally accountable human input allows SLCs to simultaneously serve as indelible, trustworthy and self executing records of legal obligations that can nevertheless be paused, amended, multi-outcomed, and rectified. The ability to use technology to leverage the human intellect provides a path towards pervasive use of SLC technology across all or nearly all types of legal instruments.

In culmination, Hunit is certain that legal contracting will be transformed through the use of SLC technologies. A path towards the legally compliant use of SLC technology has been signposted by key stakeholders such as the Ministry of Justice and the benefits of this transition are highly compelling for both providers of legal services and their clients. This digital transformation promises to bring profound changes to how legally binding relationships are managed, unlocking possibilities that are unavailable to today's static, analogue agreement formats.