GSBN | Insights

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THE INTERNET OF TRADE: INTEROPERABLE eBLs AND DIGITAL FINANCE

Unlocking Value and Liquidity in Global Trade

Contents

01 Executive Summary

Momentum around the electronic Bill of Lading (eBL) continues to build. The technical, legal and operational foundations are already in place. Jurisdictions such as Singapore, the UK and France have already embraced the Model Law for Electronic Transferable Records (MLETR) through legal reforms. Meanwhile, China revised its maritime law in October 2025. Effective from May 2026, electronic transport records will have equal legal standing with paper documents in the world's largest exporting nation.[1]

Despite progress and commitment across the ecosystem, adoption remains modest—in many routes, the numbers remain in the single digit. The question is no longer whether the industry can digitise electronic documentation, but when eBL will generate the value needed to accelerate adoption at scale—and how?

For years, global trade has been underpinned by two sets of rails working together. The logistical systems that move goods, and the financial systems that move money. Both have functioned effectively, but as they have digitised, they have done so along separate paths. Today, carriers are leading efforts to digitise trade documentation, yet trade documents were designed to serve two equal purposes—enabling both the physical transport of goods and the financing of trade.

This whitepaper argues that eBL adoption will only reach critical mass when eBLs bridge these two worlds. The next phase of progress lies in relinking the physical and financial layers of trade. By digitising titles and connecting them natively to financial and data rails, the eBL can become more than just a tool of efficiency or compliance. By linking the flow of goods with the flow of value, we can make trade faster and cheaper, more efficient and accessible for those who learn how to best leverage this new tool.

For years, global trade has been underpinned by two sets of rails working together. The logistical systems that move goods, and the financial systems that move money. But eBL adoption will only reach critical mass when eBLs bridge these two worlds.

02 Why is Adoption Still Low?

For much of history, global trade has been powered by two reliable yet separate systems—the logistical rails that move goods, and the financial rails that finance trade, and enable settlements. Both have worked well together and the processes behind them have largely been fit for purpose.

But as both began to digitise, they did so on separate tracks. Financial systems continued the pursuit of speed and convenience via digitalisation on all fronts—transforming most paper processes into a few simple clicks on your mobile phone. Shipping, on the other hand, focused on providing visibility and tracking. Speed and convenience were not really on the top of the list. As a result, there was a narrow focus on digitising operational trade documentation. The result is a growing gap between how goods move and how value moves—precisely the divide that electronic Bills of Lading (eBLs) were meant to bridge.

When first introduced, eBLs were heralded as a breakthrough that would finally replace paper in global shipping. The vision was clear. A single, secure digital document capable of carrying title and information seamlessly across the supply chain. Adoption was turbocharged by several factors.

Under the UNCITRAL Model Law on Electronic Transferable Records (MLETR),[2] and national laws like the UK's Electronic Trade Documents Act (2023),[3] electronic trade documents now have the same legal status as paper driving legal impetus.

Meanwhile, global carriers including members of the Digital Container Shipping Association (DCSA) have pledged to reach full eBL adoption by 2030[4] and surveys from the International Chamber of Commerce (ICC) and FIT Alliance confirms a gradual shift.[5]

> ***Yet global penetration remains in the single digits, and the scale remains far below what is needed for systemic change. The question is no longer whether eBLs work, but why their impact remains limited.***

Incremental Gains, Limited Impact

The answer lies in their adoption. Early efforts have been narrowly focussed on logistics alone, viewing eBLs as a digital substitute for paper rather than as part of a broader value chain.

While eBLs can accelerate the documentation process, they cannot transform the underlying economics of trade on their own. eBLs represent progress within the logistics domain, but without connection to financial settlement, they remain one isolated improvement in a much larger process.

The challenge is not that the physical movement of goods is slow, but that the digitalisation of logistics has advanced independently from finance. Electronic documents may now be exchanged in seconds, but if the associated payment, credit and compliance processes continue to operate on separate and legacy rails, the system does not become faster or more integrated overall.

> ***In effect, two critical layers of global trade—the movement of goods and the movement of money—have become more sophisticated yet more disconnected. This separation creates a classic cold-start problem.***

The Cold Start Dilemma

Because of the separation, some carriers hesitate to invest heavily in eBL adoption as banks and corporates have yet to embed these into their trade finance systems. Meanwhile, banks struggle to justify full digital transformation while eBL volumes remain low. Corporates continue to operate comfortably with hybrid or paper processes, seeing little reason to overhaul established workflows that already function adequately.

Yet geopolitical factors and more frequent disruptions in global trade are introducing new pressures. Rising tariffs, shifting trade routes and tighter liquidity mean businesses need faster, more transparent access to trade financing. Today, the Asian Development Bank places the global trade finance gap at US$2.5 trillion.[6]

As such, trust mechanisms such as Letters of Credit are regaining importance, providing assurance at a time when counterparties may be new or exposed to unfamiliar jurisdictions. This dynamic is creating a catalyst for counterparties to digitally connect physical trade flows with financial ones.

> ***The Electronic Bill of Lading can act as the common bridge between logistics and finance—enabling carriers to unlock faster cash cycles and new financial services, while giving banks access to real-time data for automated, low-friction trade finance.***

Reconnecting the Two Rails

The Bill of Lading has always represented more than a document. It is a title to goods—a claim to ownership over them and therefore, to their value. By digitising that title, the eBL can act as the common bridge between logistics and finance, linking the transfer of cargo with the transfer of capital. This shift redefines eBLs not as operational tools but as infrastructure for new forms of trade finance.

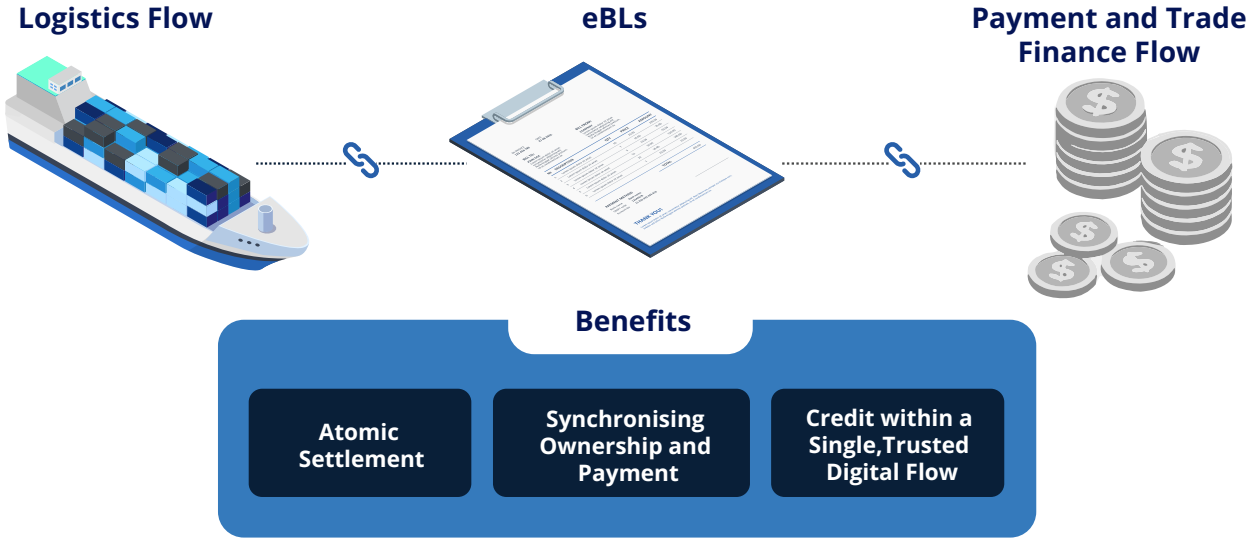
For carriers, this convergence offers a way to participate directly in value creation. By linking eBLs to payment and financing mechanisms, carriers can shorten cash cycles, reduce credit risk, and enable new financial services alongside logistics. They are no longer confined to moving goods; they become integral to the financial flow that underpins trade.

For banks, participation opens an avenue for innovation. Integrated eBL infrastructure provides a reliable data source for automated verification, digital credit scoring and real-time settlement. It creates room for progressive banks and fintechs to reimagine trade finance as a data-driven, low-friction service rather than a manual, document-heavy process.

The Opportunity Ahead

The future of trade digitalisation will be defined not by incremental efficiencies, but by integration. The opportunity lies in linking digital documents with digital money—in connecting the transfer of goods with the transfer of value. When eBLs are coupled with digitised payment and trade finance rails, they can enable atomic settlement, synchronising ownership, payment, and credit within a single, trusted digital flow.

To realise this next phase, carriers, banks, and fintechs must actively collaborate in building and adopting the shared infrastructure that unites the once-parallel systems of logistics and finance. Doing so creates more than operational efficiency; it builds a new value network—one where eBLs become the connective tissue between physical shipments and digital money. The outcome is a more liquid, resilient, and transparent trade ecosystem that can better support the complex demands of the global economy.



03 Interoperability

As we've discussed earlier, one of the reasons why adoption of eBL has not been as fast as predicted is because everyone needs to be on the same provider to enable a transfer chain. But who has the time and effort to pull everyone they work with onto the same eBL provider? We refer to this as the "cold start dilemma." And the antidote to it is eBL interoperability—a solution that enables eBL to flow securely from one provider to another, while retaining unicity and validity.

Ending the eBL Adoption Gridlock

Today, an eBL is typically unique and valid only within the confines of a single solution. This makes it necessary for every participant in a supply chain transaction—the carrier, shipper, consignee, and even the bank—to operate on the same eBL solution if they wish to transact digitally.

Over time, this has led to a fragmented market landscape, where each eBL provider tends to focus on a particular user group (i.e. carriers, NVOCCs, corporates, or banks) in hopes that their network will attract the rest of the ecosystem.

After years of limited progress, the industry must confront an uncomfortable truth:
no single entity, not even the carriers, has enough leverage to compel the entire ecosystem to adopt a single solution. The standalone value of an eBL, while meaningful, is too incremental to serve as a catalyst for full ecosystem migration.

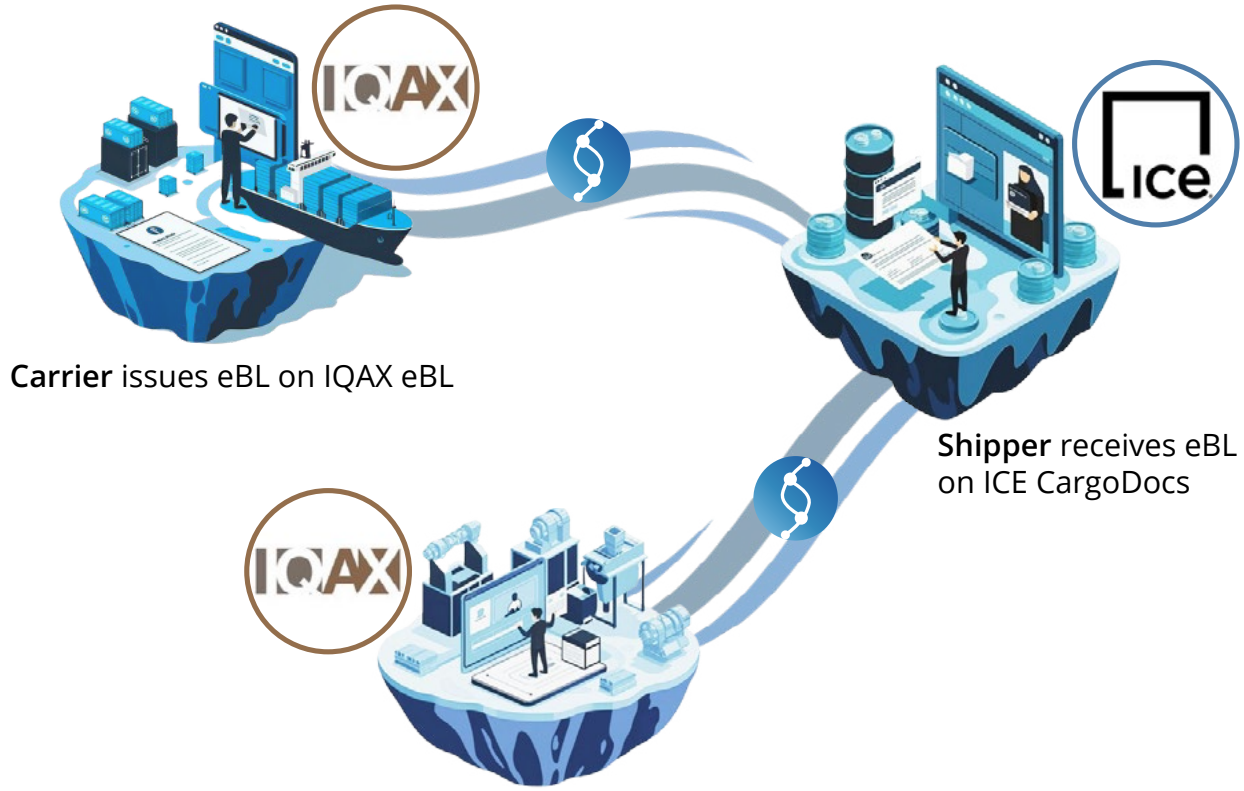
It is time to change the strategy.

Rather than repeating the same arguments for eBL adoption—faster transfer, paperless processes, reduced courier costs—the industry must instead enable connectivity between existing solutions. This will decrease friction for everyone in the ecosystem and encourage increased use of eBLs.

This is the approach that GSBN has taken.

In Q1 2025, GSBN successfully demonstrated eBL interoperability together with IQAX eBL, ICE CargoDocs, and OOCL, proving that solutions can interoperate without forcing users to move onto the same provider.[7]

In the live pilot, OOCL issued an eBL via IQAX eBL to a shipper using ICE CargoDocs. The shipper then transferred the eBL to a consignee back on IQAX eBL, for surrender back to OOCL.



In the past, this would have required all three parties to be on the same solution. Through interoperability, each participant remained with their provider of choice, seamlessly exchanging the eBL without any change to their existing workflow. It marks an industry first: collaboration without compromise.

How Interoperability Works

To appreciate how interoperability functions in practice, it helps to examine the prerequisites that make it both legally sound and operationally secure.

Building blocks for eBL Interoperability

1. Unicity — Ensuring a Single, Authoritative eBL

Because an eBL represents title to goods, it must always remain unique. The most serious risk is forking—the creation of multiple versions of the same eBL across providers, leading to disputes over ownership and control.

To prevent this, GSBN serves as a Control Tracking Registry, recording the status and controlling provider of each interoperable eBL. At any given moment, GSBN enforces a "one and only one" rule: there can be only one controlling provider, and therefore only one recognised owner or controller of the eBL. This ensures that title integrity and trust are never compromised, no matter how many providers are involved.

2. Legal Validity — Grounding Interoperability in Law

Beyond technical integrity, legal enforceability is essential. Before the emergence of digital trade legislation, each eBL solution relied on its own terms and conditions, or "rulebook", to define the legal interaction with electronic documents. However, these rulebooks vary by provider, creating inconsistencies and friction when eBLs move across solutions.

The turning point came with the UNCITRAL Model Law on Electronic Transferable Records (MLETR), which defines the functional equivalence between electronic and paper documents. Under MLETR-compliant jurisdictions, an electronic transferable record such as an eBL enjoys the same legal status, validity, and enforceability as its paper counterpart.

When an eBL's governing law is based on an MLETR-aligned jurisdiction, eBL solution providers can rely on a harmonised legal basis, minimising the need for bespoke reconciliation. More importantly, users no longer need to sign multiple rulebooks merely to ensure interoperability—preserving simplicity and purpose.

3. Liability Clarity — Enforcing Accountability

Legal recognition alone is not sufficient; providers must ensure that they are fulfilling their contractual obligations. Here again, GSBN's role as a Control Tracking Registry provides the assurance mechanism. Each interaction between interconnecting eBL solutions is logged immutably on blockchain, creating a complete, auditable trail of activity. This transparency ensures that each solution provider remains accountable for its role in the transfer, safeguarding both legal integrity and operational resilience.

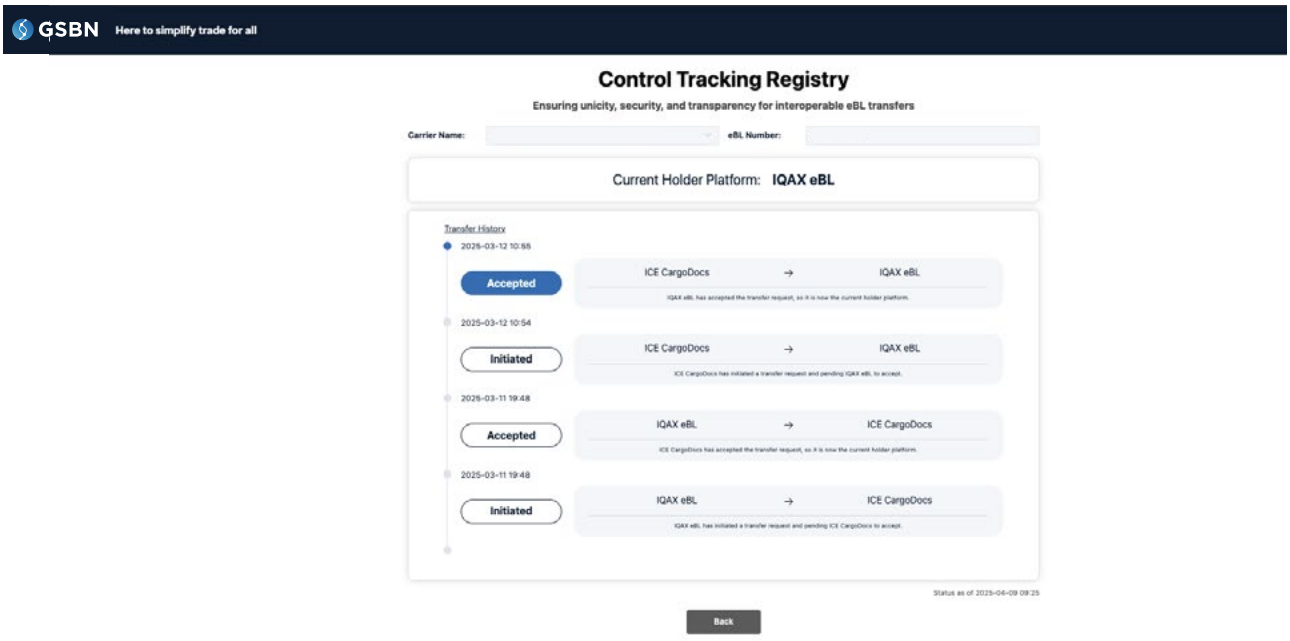
4. IG P&I Club Approval — Completing the Trust Framework

The final prerequisite came with endorsement from the International Group of P&I Clubs (IG P&I)—the global authority in maritime insurance that underwrites over 90% of the world's ocean-going tonnage.

This approval is vital. Carriers and shipowners depend on P&I coverages to manage liabilities such as cargo loss, environmental damage, and pollution. By recognising interoperable eBLs as valid under existing insurance terms, the IG P&I approval gives shipowners the confidence that their use of interoperable digital documents remains fully insured and compliant.

With unicity maintained, legal validity grounded in MLETR, liability clarity enforced via GSBN, and IG P&I approval secured, the ecosystem now has a complete, trusted framework for interoperability.

GSBN as a CTR

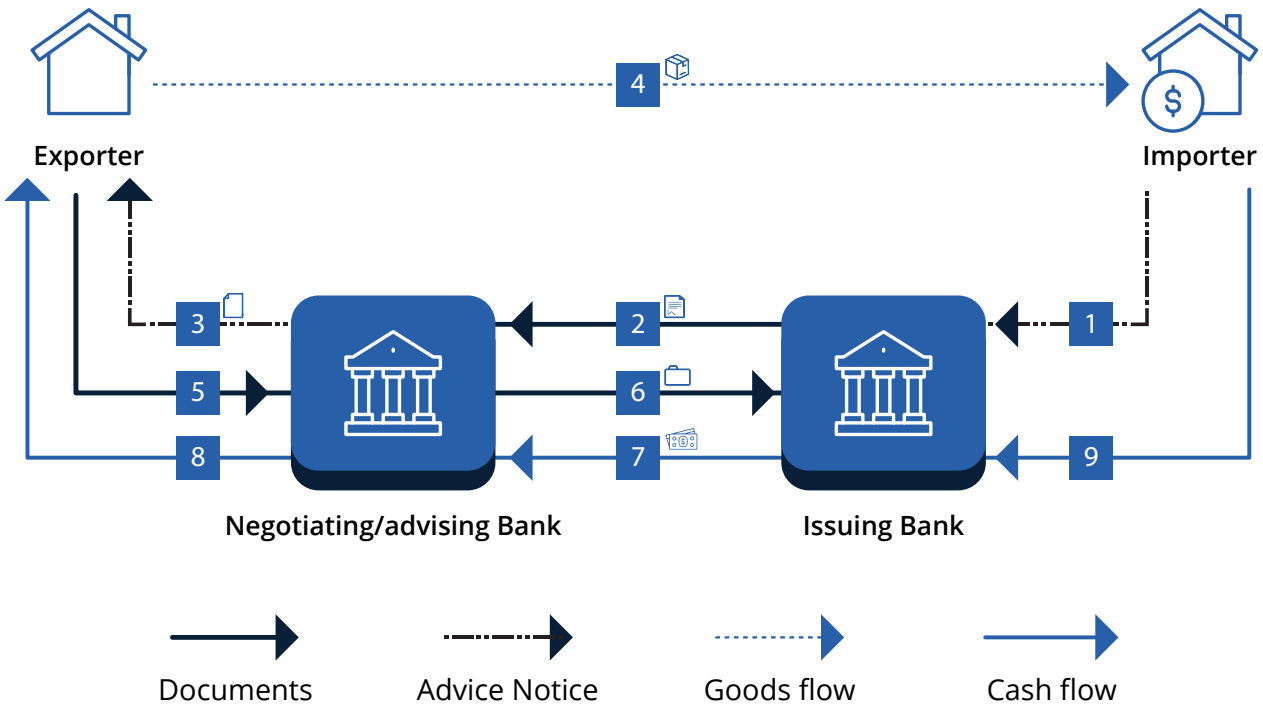


04 Trade Finance is the End Goal of Interoperability

While the first phase of interoperability focused on connecting eBL solutions used by carriers and corporates, the next step brings banks squarely into the flow—completing the digital chain from cargo to finance.

Letter of Credit and Documentary Collection 101

Banks play a key role in international trade by offering a wide array of financial instruments to make payment and finance easier for the corporates. Letter of Credit (L/C) and Documentary Collection (D/C) are amongst the oldest forms of services offered by Banks. In both processes, essentially the banks act on behalf of their clients to communicate on the conditions of payment. To check if these conditions are fulfilled, the banks would ask for documents from the shipper, and the set of original bill of lading is one of the most common and critical documents required in the process as it provides evidence of shipments and more importantly, gives banks control over the goods as consignees wouldn't be able to claim the goods unless the sets of original bill of lading is released to them.



1 LC application

2 LC issued

3 LC advised

4 Goods are shipped

5 Documents presented, If any discrepancy exists the Exporter is notified

6 Document sent to issuing bank

7 Issuing bank will effect payment or accept for a future payment

8 Payment to Exporter

9 Documents received and import bill settled

Lack of Interoperability Blocks the Digital Transformation of Banks

Banks arguably embraced digital transformation earlier than many supply chain actors. Yet, trade finance operations remain largely manual, mainly because the industry still relies heavily on paper documents—particularly the Bill of Lading.

When electronic Bills of Lading (eBLs) first emerged, banks saw hope: a pathway to finally digitise the document flow underpinning L/C and D/C operations. However, as eBL adoption remained modest and the market became increasingly fragmented, banks found themselves at an impasse.

They faced an impossible choice: either abandon their ambition to digitise documentary presentation and collection or attempt to onboard every eBL solution individually—an approach that consumed vast resources and still failed to guarantee interoperability between their customers' chosen providers.

This fragmentation across the supply chain ecosystem became a significant blocker for digital transformation in the banking sector. Banks were left to passively await the emergence of a "winning" solution that might help them convert as much of their trade flow to digital as possible.

What's Next?

By introducing interoperability, GSBN provides banks with a practical, scalable path forward. Rather than waiting to see which solution prevails or devoting immense resources to onboarding multiple solutions, banks can continue using their existing solutions of choice—while GSBN acts as the trusted data infrastructure and control tracking registry that allows those eBL solutions to communicate seamlessly with one another.

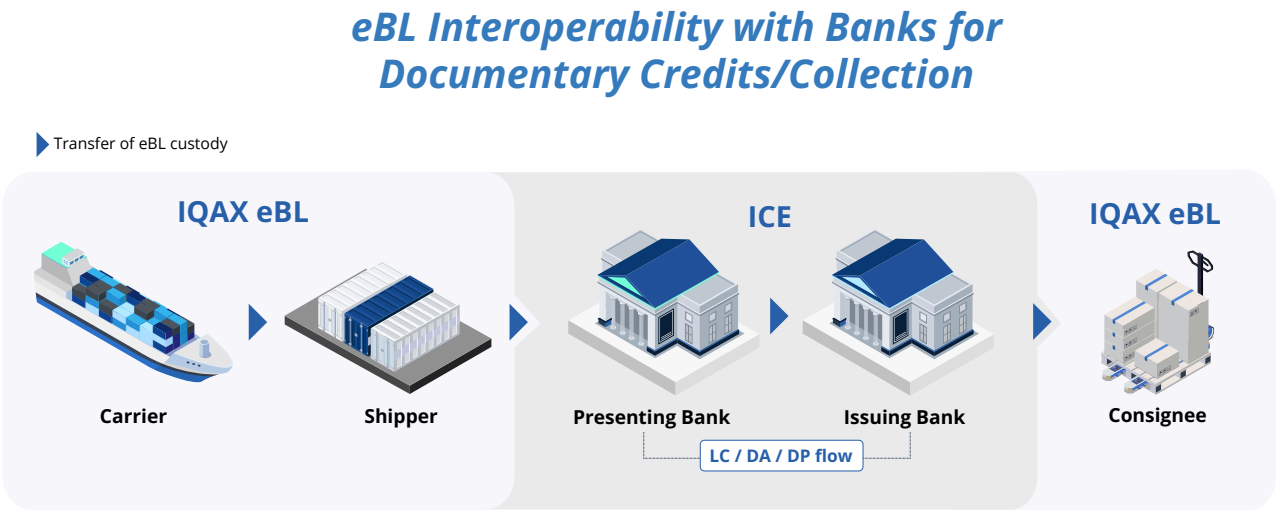
This alignment makes eBLs bank ready, facilitating:

- **Faster documentary presentation and examination under L/C and D/C.**
- **Simplified customer experience for corporates using different eBL solutions.**
- **Reduced operational burden for banks, freeing resources from prolonged onboarding or manual verification cycles.**

It's worth noting that global banking standards are already digitally prepared. The eUCP (Uniform Customs & Practice for Documentary Credits for Electronic Presentation)—a supplement to UCP 600—explicitly recognises electronic records, including eBLs, as legally equivalent to their paper counterparts.

More importantly, eUCP is agnostic to interoperability: it does not prescribe nor restrict which eBL system may be used.[8] This means that the legal and procedural groundwork is already in place; banks simply need a reliable interoperability framework to unlock the transformation.

Building on this foundation, GSBN—together with partners including IQAX and ICE Digital Trade—is taking the next step to enable truly interoperable electronic Bills of Lading for use by banks. The forthcoming pilot will demonstrate how eBLs and related Letter of Credit documents can move securely and efficiently across different solutions. By connecting these networks, the industry can unlock new efficiencies and value streams, enhance security, and foster a more resilient, transparent global trade ecosystem. The live transaction is expected to be completed within Q1 2026.



Bank interoperability makes eBL indispensable—because it links directly to letters of credit and trade collections, the core rails of global trade finance.

With interoperability, the eBL's value extends beyond transport documentation. It becomes a foundational enabler for digital trade finance, offering banks and corporations an efficient, compliant, and scalable path to paperless trade—a natural progression toward a fully connected digital trade ecosystem.

05 Beyond Bitcoin: The Stablecoin Blueprint

Interoperability allows eBLs to seamlessly flow through supply chains—from corporates and carriers to banks—and across diverse providers. Using the eBL as a common anchor, we can then unlock opportunities and value streams, for example, aligning logistics rails with the latest upgrades in financial infrastructures, like harnessing digital currencies in settlements.

Bitcoin and its Origins

The 2008 Global Financial Crisis shook the public's faith in centralised finance, as banks across the world collapsed from reckless speculation and had to be rescued by taxpayer-funded bailouts. This systemic failure created the perfect conditions for the birth of Bitcoin, whose whitepaper was published in October 2008, at the crisis' climax. It proposed a radical alternative: a decentralised system using blockchain to enable peer-to-peer transactions, eliminating trusted intermediaries.

This vision was cemented in its genesis block with the headline, "Chancellor on brink of second bailout for banks".[9]

However, over the following years, the cryptocurrency movement strayed from its original purpose. Instead of a trustless global payment system, it devolved into a speculative cesspool. Bitcoin's price volatility, which disqualified it as a currency, became its main draw. It attracted traders to a "Wild West" of unregulated exchanges, countless altcoins, and rampant get-rich-quick schemes. The idealistic project rapidly led to the very kind of speculative frenzies it was created to prevent.

Crucially, this explosive activity flourished in legal and regulatory grey zones, allowing for rapid experimentation. The crypto space gradually coalesced around several powerful and unique new digital primitives. Bitcoin successfully rebranded as the "digital gold", a store of value detached from governments and financial institutions. The advent of perpetual futures created a 24/7 global trading product. Ultimately, this period yielded the most important innovation: the stablecoin.

Stablecoin: A Godsend for Traders

Stablecoins found their first use as a means for traders to navigate crypto market cycles and hedge downside risk. By moving their digital assets into a stablecoin, traders could effectively "step off the rollercoaster" at will, preserving their capital in a dollar-denominated digital asset, while remaining within the crypto ecosystem. This allowed them to lock in profits, await new entry points, and manage risk 24/7—an agility that is impossible with traditional finance.

Stablecoins also solved a critical operational problem by enabling the seamless movement of capital across trading venues globally. Traditional banks were often hostile or restrictive toward crypto exchanges, making fiat transfers slow, expensive, and operationally complex. Stablecoins gave traders a cheap, instantaneous way to move capital between exchanges to capture arbitrage opportunities. This allowed their capital to be deployed efficiently, maximising their returns.

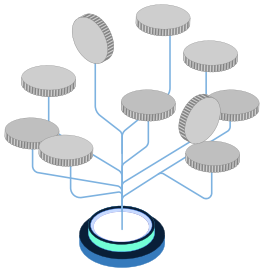
The capability to move value seamlessly across borders soon attracted the interest of financial institutions. Major financial institutions and central banks observed that stablecoins could settle cross-border payments in minutes for a fraction of a cent. This represented a dramatic improvement over the multi-day, high-cost legacy systems such as SWIFT. Combined with the native programmability of stablecoins, these advantages prompted a profound reimagining of the future of digital money.

The Different Flavours of Digital Money

The landscape of digital money has been divided between three major categories.

CBDC
Sovereign-backed trust meets programmable monetary control.

Tokenised Deposits
Commercial bank trust meets blockchain programmability — interoperability is the key to scale.



Stablecoins
Fiat-backed digital money delivering global, real-time settlement scale.

Central Bank Digital Currency

The first is the Central Bank Digital Currency (CBDC), a digital form of fiat currency issued by a central bank. Pioneering examples include China's e-CNY and the European Central Bank's project for a digital euro. The primary benefit of a CBDC is the creditworthiness conferred by the backing of a sovereign state. Moreover, it could provide unprecedented control in monetary policy for central bankers through a programmable disbursement mechanic. For instance, CBDC can allow for funds to be distributed directly into the wallets of citizens with speed and precision. It could even define their authorised purpose for use along with an expiration date.

Tokenised Deposit

The second model is the tokenised deposit, which represents a digital claim on a commercial bank. This is essentially a programmable version of a traditional bank deposit on a blockchain infrastructure. Examples include initiatives from JP Morgan and Citibank. Its key advantage is its ability to leverage the existing familiarity and trust customers have with their existing commercial banks. On the flip side, its biggest challenge is achieving interoperability between tokenised deposits. To be truly effective, customers must be able to seamlessly transfer and settle these digital assets across different banking institutions.

Stablecoin

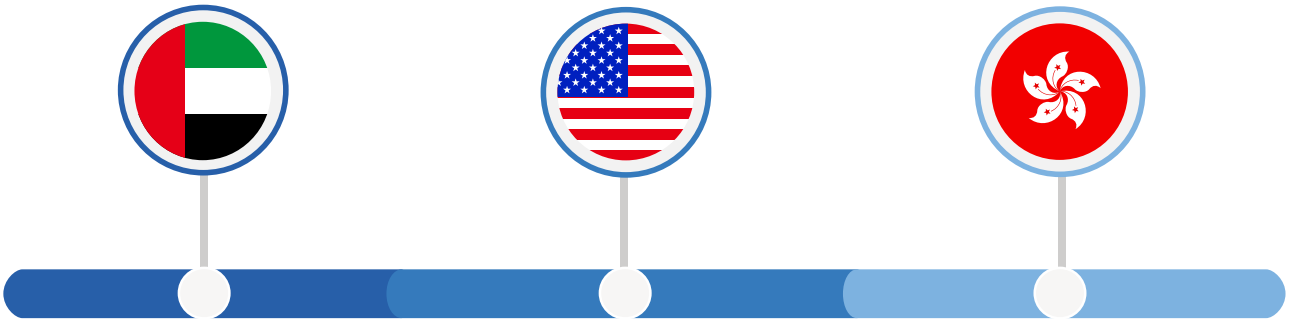
The last category is the stablecoin, a privately issued digital money tempered in the crucible of volatile crypto markets. Its evolution has seen various incarnations, from the flawed algorithmic design of Terra Luna to over-collateralised crypto-backed versions like DAI. However, the dominant model is the fiat-backed stablecoin, which is fully collateralised by reserves such as short-term treasuries and repurchase agreements. This structure combines the traditional finance's stability with the global, 24/7 efficiency of blockchain technology. With examples like Tether's USDT and Circle's USDC establishing stablecoins leading status, 2025 is shaping up to be the landmark year for mainstream adoption.

> ***Stablecoins offer a blueprint for modern trade settlement—combining the speed of crypto with the stability of fiat, and unlocking real-time, low-cost cross-border payments.***

06 2025: The Year Stablecoin Broke into the Mainstream

Regulatory Clarity

After a prolonged period of ambiguity, a global convergence on regulations on stablecoins is now underway. Three key jurisdictions are taking a definitive lead.



Dirham-backed Stablecoin, AE Coin
(April, 2025)

GENIUS Act
(July, 2025)

Stablecoins Ordinance
(August, 2025)

In the United States, the first federal regulatory framework for payment stablecoins was established by the Guiding and Establishing National Innovation for US Stablecoins (GENIUS) Act, signed into law in July 2025.[10] This landmark legislation mandates that stablecoins be backed 1:1 by high-quality, liquid assets such as cash and short-term Treasury securities. It places oversight of issuers with federal banking regulators—such as the Office of the Comptroller of the Currency (OCC)—and explicitly states that compliant stablecoins are not securities. This clear classification, combined with robust reserve and audit requirements, is designed to protect consumers, pave the way for increased digital asset innovation and ensure that US dollar stablecoins will take the lead in adoption globally.

In the Middle East, the United Arab Emirates (UAE) has solidified its position as the most forward-looking digital asset hub. The UAE's central bank (CBUAE) has approved the issuance of fiat-referenced tokens, including the first licensed dirham-backed stablecoin, AE Coin, which launched in January 2025.[11] Supported by frameworks from the Dubai Financial Services Authority (DFSA) and the Virtual Assets Regulatory Authority (VARA), the regulatory landscape is welcoming and clear. This regulatory posture has encouraged banks and payment providers in the region to move beyond exploration and actively develop innovative stablecoin-based services for cross-border payments.

In Asia, Hong Kong has implemented a precise regulatory regime with its Stablecoins Ordinance, which took effect in August 2025.[12] [13] The ordinance requires any issuer of fiat-referenced stablecoins (FRS) in Hong Kong to obtain a license from the Hong Kong Monetary Authority (HKMA). The licensing regime is stringent, including a minimum paid-up share capital of HKD 25 million, full backing with high-quality liquid assets, and a prohibition on paying interest to holders. The first licenses are expected to be granted by Q1 2026, formally launching a regulated stablecoin market.

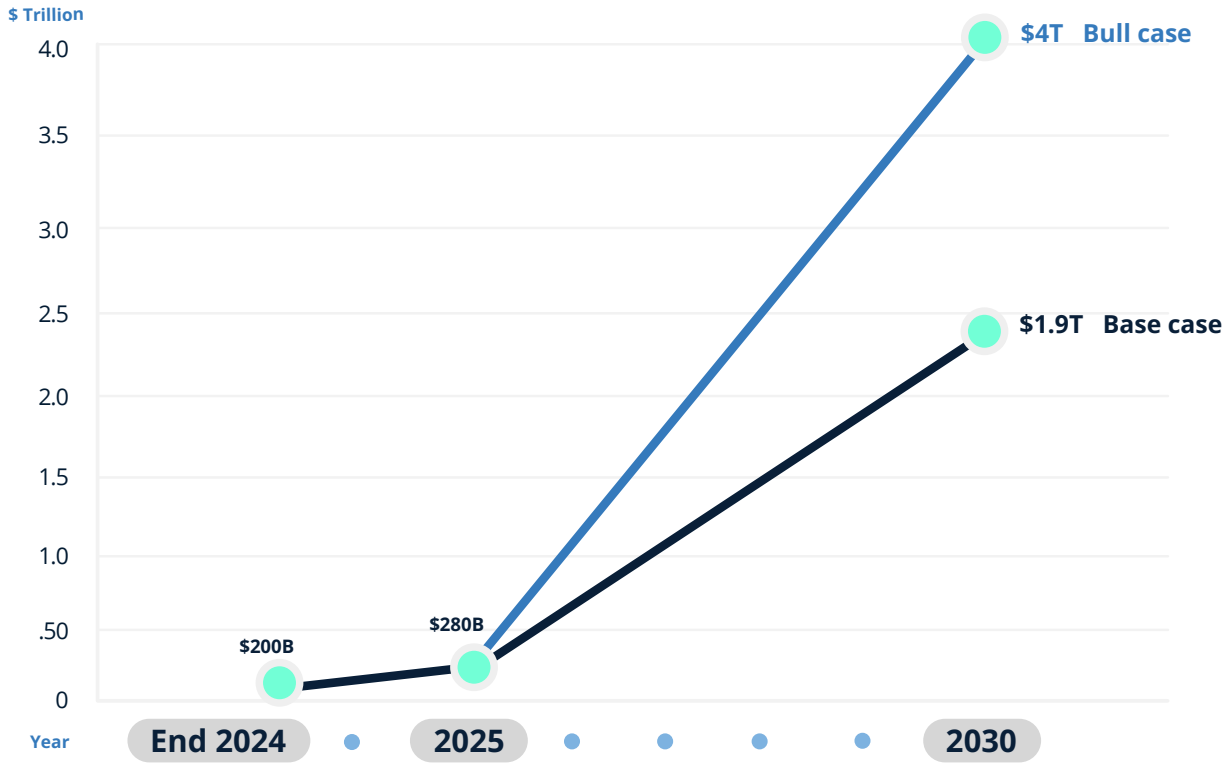
Market Responds

With regulatory clarity, we are witnessing a strong response from the market, characterised by a dramatic increase in transaction volume, an expansion into real-world asset tokenisation, and a wave of new entrants from the traditional financial sector.

The transaction volume of stablecoins has not only grown but has begun to even surpass that of traditional payment networks. In 2024, the annual stablecoin transfer volume reached $27.6 trillion, exceeding the combined volumes of Visa and Mastercard.[14] This explosive growth has continued into 2025, with issuance volumes rising from about $200 billion at the start of the year to $280 billion by September.[15]

As a result, Citibank has revised its 2030 stablecoin adoption forecast upward, with a base case of $1.9 trillion and a bull case of $4 trillion.[16]

Growth of Issuance Volumes

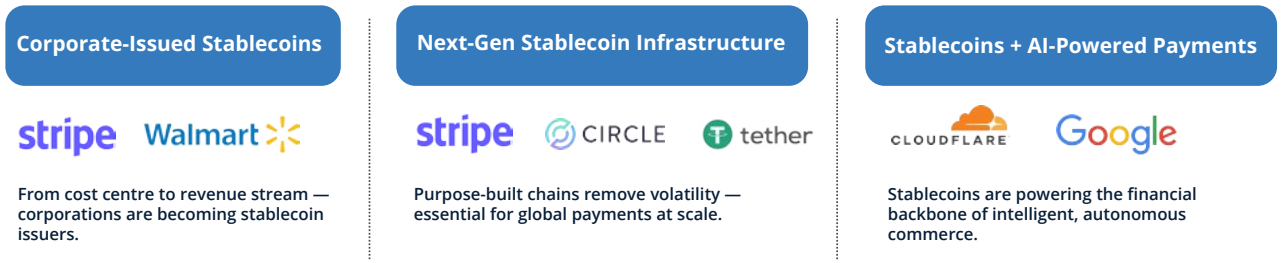


Another driver for growth is the movement of stablecoins into the tokenisation of real-world assets (RWAs). Leading this charge are tokenised money market funds, which bring traditional financial instruments like US Treasury bills onto the blockchain. The most prominent example is Blackrock's BUIDL, which has seen massive institutional demand. Launched in March 2024, it grew to over $2.3 billion in total value locked (TVL) by April 2025, making it the largest fund in the RWA category.[17] These funds function as yield-bearing stablecoins, offering investors a way to earn daily dividends on low-risk assets while enjoying the 24/7 transferability and programmability of blockchain.

In response to this meteoric rise, established financial institutions are now forming consortia to compete with stablecoins. In Japan, the three largest banking groups (Mitsubishi UFJ Financial Group, Sumitomo Mitsui Financial Group, and Mizuho Financial Group) have just announced a joint initiative to launch a yen-pegged stablecoin for their corporate clients by the end of 2025.[18] Similarly, a group of nine European banks, including ING and UniCredit, are reportedly planning to issue a euro based stablecoin.[19] Concurrently, SWIFT is partnering with the Eth Layer-2 network Linea on a pilot project to explore how to augment its existing infrastructure with native settlement on blockchain capability.[20]

Evolutions of the Stablecoin Market

Unwilling to merely adopt existing stablecoins, Fortune 500 corporations are planning to issue their own stablecoins. For example, Walmart's exploration of a proprietary stablecoin revealed it could potentially save billions in fees.[21] [22] To enable more corporations to take the same route, Stripe's "Open Issuance" product lets any business launch and manage a white labelled stablecoin in days.[23] This allows companies to control their customers' user experience and earn yield on the underlying reserves. A cost centre is essentially becoming a source of income.



On the other hand, leading stablecoin issuers are rushing to create their own specialised layer one blockchains to support exponential growth. Projects like Circle's Arc, Stripe's Tempo, and Tether's Plasma are built for different use cases but share a key advantage over traditional public blockchain. They all allow transaction fees to be paid in stablecoins instead of a volatile native token. This eliminates major pain points such as fee unpredictability and network congestions. Without this change, it is impossible to create an underlying infrastructure which can support the needs from high volume, high frequency and low latency cross border payments.

Lastly, stablecoin could prove to be an indispensable payment infrastructure to power new economic models from widespread adoption of AI. Google's Agent Payments Protocol (AP2) establishes a universal security layer, using cryptographically signed "mandates" to create a verifiable audit trail that authorises AI agents to spend on a user's behalf.[24] This in essence enables the future of agents based online commerce. Another example is Cloudflare's "NET Dollar", a USD-backed stablecoin, designed to enable low-cost, pay-per-use microtransactions for agent-to-agent payments. This model aims to reorient incentives towards the creation of original, and high-value content on the internet, as opposed to high-engagement content driven by ads.

One question remains: How will the widespread adoption of stablecoin affect global trade?

07 Tokenised Trade

The long-term impacts of stablecoin have not yet borne out in trade finance—largely because many of its applications have not yet emerged or captured widespread use. But as stablecoin gains regulatory clarity and traction for adoption, there have already been new value streams created through innovative uses of the technology. One of these new value streams is tokenized trade. With so much potential for the combination of stablecoin and eBLs in trade finance, there is a good argument to be made that the industry is facing an inflection point.

Tipping Point for Change in Global Trade

Global trade has long been hampered by an over-reliance on paper, creating significant delays, operational complexities and fraud risks.[25] The central document is the Bill of Lading, which serves as a title of ownership for goods in transit. While effective in a pre-digital era, paper-based processes create needless complexities and expose parties to the risk of fraud and loss.

The convergence of the adoption of electronic Bills of Lading (eBLs) and stablecoins now presents a tipping point for a fundamental transformation. An eBL eliminates the paper bottleneck by providing a secure, instant, and immutable means to transfer titles digitally. When this is paired with stablecoins, a powerful synergy emerges: the transfer of legal title (the eBL) and the simultaneous transfer of payment (via stablecoin) can occur atomically in a single, seamless transaction. This creates a "ship-and-pay" model where the release of the digital title automatically triggers an immediate and final settlement, removing the traditional disconnect between receiving goods and securing payment. The programmability of those digital instruments can be further leveraged to accommodate more complex real-life transactions where multiple payments and conditions are to be met for the transfer of title.

Beyond streamlining the operations, the use of stablecoins in trade finance delivers two critical ancillary benefits. Firstly, it acts as a powerful forcing function for the digital transformation of commercial banks. If traditional trade finance banks choose to remain in the world of paper, they may be disrupted by more agile competitors, who will seize the new opportunities from adopting stablecoins.

Secondly, stablecoins provide a new source of funding for trade finance. Traders, who might have benefited from the previous crypto bull runs, can invest in trade finance while staying in the world of digital assets. As a new asset class, trade finance has many benefits over crypto tokens. It is a self-liquidating, short duration asset, which offers uncorrelated returns to investors. One such example is the launch of Tether TradeFi in February 2025.[26]

> ***The pairing of eBLs and stablecoins creates a "ship-and-pay" model where the release of the digital title automatically triggers an immediate and final settlement, removing the traditional disconnect between receiving goods and securing payment.***

To explore this subject further we have organised an event in Singapore on the sidelines of Token 2049 to discuss the opportunities of tokenised trade with our partners (Carriers, Customers, Banks, Fintechs, eBL solutions and stablecoin issuers).

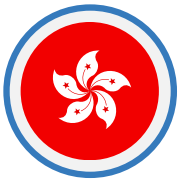
Location, Location, Location

One of the major discussion points at the event was which jurisdiction will take the lead in tokenised trade and here there was a diversity of views.

The United States possesses inherent advantages for leading tokenised trade, primarily due to its deep pool of financial and technological talent and its role as the issuer of the world's reserve currency. The USD is the dominant unit of account for global trade, and the push from both crypto-native companies and traditional finance to bring assets on-chain creates a powerful foundation. However, its leadership is vulnerable to geopolitics. Trade wars and the use of the dollar as a foreign policy tool can compel counterparties to seek neutral alternatives, potentially limiting the reach of a US-centric digital trade system.

Hong Kong offers a compelling blend of its legacy as a global trade hub and a sophisticated financial centre actively building a digital asset ecosystem. Its historical role as a gateway to China provides a unique potential connection to the world's largest trading nation. The critical challenge, however, is political and regulatory alignment. As evidenced by the PBOC's clear preference for CBDC e-CNY, China is unlikely to endorse private, decentralised stablecoins in the short to medium term.[27] This forces Hong Kong to devise its own stablecoin framework, a significant undertaking that must proceed without the support of its largest economic sponsor.

Summary Table: Jurisdictional Comparison

			
Key Strengths	Deep financial markets, USD dominance, strong RWA momentum	Global trade legacy, financial sophistication, gateway to China	Regulatory clarity, logistics infrastructure, geopolitical neutrality
Key Challenges	Geopolitical friction, overreach of dollar diplomacy	No licenses for stablecoin issuers have been granted yet	Smaller domestic market, emerging digital ecosystem

The UAE is emerging as a powerful and more importantly neutral contender. It combines three critical assets: proactive and supportive stablecoin regulations, world-class physical logistics infrastructure, and a perceived geopolitical neutrality that is increasingly valuable. This positions it as a potential "Switzerland" for tokenised trade, offering a credible alternative for transactions between parties who may wish to maintain geopolitical ambiguity. Its ability to integrate the entire value chain—from shipping logistics at Jebel Ali Port to digital settlement on its licensed exchanges—gives it a unique and holistic advantage in the race to define the future of trade.

Real Use Cases

In Shanghai's LinGang Free Trade Zone, a pioneering model for end-to-end digital trade finance is being implemented through the "triple-document" integration. This initiative seamlessly connects the electronic Bill of Lading (eBL), electronic Delivery Order (eDO), and electronic Warehouse Receipt (eWR) on a single trusted blockchain network, creating a continuous digital asset chain. This allows cargo to be used as verifiable collateral throughout its entire journey, from in-transit to post-shipment storage. A real-world pilot demonstrated its efficacy by enabling a RMB 2 million pledge financing from the Bank of Jiangsu, a transaction that would be impossible with paper documents, while reportedly cutting operational costs by 30%.[28]

A real world pilot connecting the three steps in one single digital flow and reportedly cut operational cost by 30%

Hong Kong is advancing its tokenised trade capabilities through strategic international partnerships, most notably Project Ensemble with the Hong Kong Monetary Authority (HKMA) and the Central Bank of Brazil.[29] This project focuses on linking tokenised deposits with eBL transfers, creating a unified system where the transfer of legal title and the corresponding payment can occur simultaneously on blockchain. By connecting digital currency with digital trade documents, the project aims to dramatically increase the speed and reduce the cost and risk of cross-border trade settlements, positioning Hong Kong at the forefront of tokenised trade.

The 2025 Hong Kong Policy Address provides a concrete roadmap for advancing digital trade, with a specific focus on the adoption of electronic Bills of Lading (eBL). A key legislative initiative will be the introduction of a bill next year to allow for digital trade documents aligned with MLETR, creating the legal foundation for eBL.[30]

Furthermore, the HKMA is tasked with exploring the application of tokenised electronic Bills of Lading under Project Ensemble, a cross-boundary collaboration with Shanghai.[30] This initiative aims to use tokenised deposits and eBLs to facilitate more efficient trade finance. These efforts are also part of a broader strategy to test financial innovations that enhance commodity trading, explicitly citing the use of electronic Bills of Lading and tokenised deposit in the partnership between HKMA and Central Bank of Brazil.

08 Conclusion: Building the Internet of Trade

The past decade has shown that digitisation alone does not transform global trade—connection does. Electronic Bills of Lading (eBLs) have advanced from vision to reality, with technical standards, legal validation, and operational readiness now in place. Yet their true potential lies not in replacing paper, but in redefining the relationship between the movement of goods, payments, and trade finance—the three pillars that make global commerce possible.

Interoperability marks the turning point. With control, legal validity, and insurance frameworks established, eBLs can now move seamlessly between platforms, enabling every participant—carrier, bank, fintech, and shipper—to operate on shared digital trust. This foundation transforms eBLs from passive records into active instruments of value, linking physical logistics with financial settlement and credit creation.

> ***Trade is no longer just being digitised—it's becoming programmable. The convergence of eBLs and digital money lays the foundation for the Internet of Trade.***

The next evolution comes through tokenised trade, where digital documents meet digital money. When eBLs are combined with stablecoins or tokenised deposits, both payment and financing can be synchronised with the transfer of ownership in a single, atomic transaction. This convergence enables a new generation of programmable trade flows—where the release of digital title can trigger precise, conditional settlement or financing in real time. What began as an effort to digitise paper now has become infrastructure for trade that settles itself.

And crucially, the time is now. On one side, eBLs have achieved legal and operational readiness; on the other, digital forms of money are advancing rapidly under new regulatory clarity. For the first time, the logistical and financial layers of trade are poised to meet—opening a path toward a fully connected digital trading environment.

The next phase will depend on collaboration. Carriers, banks, corporates, regulators, and technology providers must work together to close the gap between trade's physical and financial rails. This means co-developing interoperable infrastructure, aligning legal frameworks, and embedding digital documents directly within financial processes—not as separate digital upgrades, but as integral components of modern trade workflows.

> ***The systems are ready. The infrastructure exists. Now, the future of global trade depends on who executes first.***

The opportunity is clear. The systems are ready. What remains is collective execution. Those who act first—connecting eBLs with digital money and embedding trade finance natively within that flow—will define the framework for a more liquid, transparent, and efficient global trading system. Together, they can build what is, in essence, the Internet of Trade: a unified network where goods, data, and value move as one.

GSBN invites carriers, banks, regulators, and technology partners to join us in building the Internet of Trade—where digital documents and digital money work together. Together, we can create a connected, programmable, and fully digitized trade ecosystem.

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10 About GSBN

The Global Shipping Business Network (GSBN) is a neutral, not-for-profit consortium whose mission is to enable paperless, accessible and sustainable growth in global trade with its data infrastructure and ecosystem of partners. GSBN facilitates trusted collaboration between participants across the shipping industry to enable greater efficiencies, and paperless trade as well as supporting the shipping industry's decarbonisation transition.

GSBN's ecosystem includes shipping lines, terminals, banks, application developers and other consortia. The entire network accounts for more than half of the containers handled in the world.

Learn more about us at *www.gsbn.trade*