



Information Paper
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Digitising trade: the time is now

The time is now



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World trade is central to economic growth and as we emerge from the pandemic, trade is paramount in enabling the global economy to recover. This paper draws on the SWIFT strategy, data and the views of our community to advance the dialogue around trade digitisation, which has the potential to generate significant economic growth, by reducing friction, costs and risks.

The industry has long discussed trade digitisation and its many facets, but the pandemic renders it critical and presents a series of compelling events that could create the tipping point for scalable progress in digitisation. The current operating environment magnifies the fragility of international supply chains, as well as the risks and inefficiencies in manual, paper-based processes. Friction ultimately impairs access to liquidity and optimisation of financing, with knock-on ramifications for business and growth. The conversation has therefore evolved beyond operational efficiency, and is fast becoming a matter of business continuity and risk management.

Digitising a complex ecosystem involving myriad actors, rules and regulations, sprawled across both physical and financial supply chains in multiple countries and industries is a challenge. Technology alone is not enough to address the challenge; this paper identifies three key elements that are needed to truly facilitate effective trade digitisation:

- Legal harmonisation
- Richer data and standards
- Interoperability

These are all areas in which SWIFT can play a role. As a global, neutral co-operative, SWIFT is an integral part of the financial system and a critical provider of network and mutual services internationally. We have an ambitious strategy to ensure that the future is defined by frictionless transactions. We are exploring ways in which we can support the community in the digitisation of trade.

SWIFT today digitises more than USD 2 trillion in global trade. Through common standards, identity, and security protocols SWIFT enables interoperability between thousands of banks and corporates in over 200 countries and territories. This expertise lends itself to the co-creation of a trade ecosystem – that is standardised, scalable, and interoperable – tackling friction and fragmentation, agnostic to financing structures and solutions.

We are transforming the SWIFT platform, expanding our capabilities beyond messaging and beyond documentary trade. We are adopting an API and partnership strategy that will complement our existing assets and capabilities, and enable us to help tackle the challenges presented by digital islands that have come to characterise the trade ecosystem. Providing common services that the community has historically invested in individually, saves the industry time and money, and helps innovation to scale.

Now is the time to digitise trade, to work in collaboration with all participants to ensure a global, interoperable and trusted trade ecosystem emerges from this defining period in history.

Opinions by

- IMF
- IMDA
- ICC DSI

Did you know about?

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- Legal uncertainty implications
- Benefits of ISO 20022
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Introduction

Trade is central to economic growth, with countries that are open to international trade more likely to grow faster, innovate, improve productivity and provide higher income and more opportunities to their citizens¹. A quick recovery in world trade have improved as merchandise trade expanded more rapidly than expected in the second half of 2020². According to estimates from the WTO, the volume of world merchandise trade is expected to increase by 8.0% in 2021 after having fallen 5.3% in 2020, continuing its rebound from the pandemic-induced collapse that bottomed out in the second quarter of last year³.

However, trade is an extremely complex ecosystem, involving not only an importer and an exporter but also myriad other actors sprawled across physical and financial supply chains, covering multiple countries and industries. This gives rise to differing standards, rules, regulations and legal frameworks. This complexity has contributed to heavily manual, paper-intensive processes that have broadly resisted most efforts towards digitisation.

Digitisation has the potential to help reduce processing times, costs and risks by reducing friction and increasing transparency. The potential for enhanced, richer data is paramount. Richer data offers greater insight into supply chains, helping foster transparent and efficient trade finance. This could help to promote greater financial inclusion by enabling more corporates – notably small and medium enterprises (SMEs) – to access trade finance⁴. A financing gap that has widened through the course of the pandemic, with the International Chamber of Commerce (ICC) and Standard Chartered Bank⁵ reporting that a further USD 1.9 to USD 5 trillion in trade credit⁶ is required to return to 2019 levels.

However, truly effective digitisation can only be achieved when it is rolled out hand-in-hand with standardisation and legal harmonisation; technology on its own is not enough.

COVID-19 has accentuated the friction, inefficiencies, risks and control challenges associated with paper-based processes. The digitisation of trade can no longer be an ‘if’ but must now be a ‘now and how’.

02

The pandemic in data

“Letters of Credit (LCs) remain an important financial instrument for risk mitigation and financing and we think these will continue to be relevant in the near future. But the big change is likely in the long term where we believe technology will play a key role in how risk mitigation and financing is offered to customers and consumed by the industry at large. The shape and form in which LCs are offered may change, facilitated by developments in the technology space such IoT, DLT, smart contracts and APIs. The evolution of common data standards will play a key role in how these offerings shape-up. Digitisation of LCs will make it simpler for buyers and sellers to trade by increasing the velocity of trade while reducing friction (paper, costs and risks).

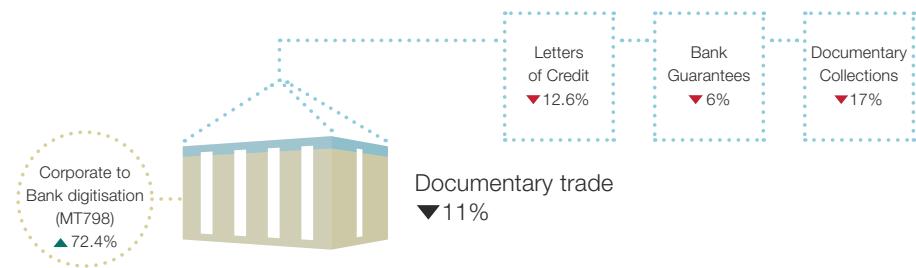
**Vinay Mendonca, Managing Director,
Global Head Product, Propositions
& Structuring, Global Trade and
Receivables Finance, HSBC**

In March 2020, the World Health Organisation (WHO) declared the SARS-CoV-2 outbreak a pandemic – a disease that spreads in multiple countries around the world simultaneously. By July 2021, WHO reported that more than 199 million cases of COVID-19 had been confirmed worldwide, a more than tenfold increase over 15 months.

In response to the pandemic, more than 140 countries implemented various ‘lockdown’ procedures that included limiting movement and requiring social distancing⁷. This gave rise to unprecedented shocks to supply and demand across all sectors. As global energy demand plummeted, U.S. oil prices dropped below zero for the first time in history⁸. Factories shut down at rates likened to those seen during World War II. Disruption inevitably reverberated through supply chains and across the trade ecosystem.

SWIFT is in a unique position to monitor the impact of the pandemic on trade. Whilst there is a well-documented product shift towards open account, SWIFT helped facilitate over USD 2 trillion in documentary trade financing in 2020. As the pandemic presents heightened risk and volatility, it is feasible that demand for risk mitigation, like documentary trade could grow.

In late April 2020, as lockdowns came into force across the world, and supply and demand shocks hit hard, documentary trade finance declined by as much as 49% week on week, according to SWIFT Watch. However, volumes and values rebounded – with global documentary trade ending the year 11% down.



LCs and Guarantees make up the majority of the business, as we can see in Figure 1. The impact of the pandemic, coupled with the lockdown drove sharp declines in both products at the height of the pandemic, with a rebound, as lockdowns were broadly eased (Figure 2 and 3).

Use of free format messaging over SWIFT (MT 799) was relatively less affected, suggesting that SWIFT served as a broader means of secure communication and confirmation during the pandemic. In fact, the ICC has proposed that SWIFT could be a possible alternate solution to manual document flows. In stark comparison to the overall drop in documentary trade, the Digital Trade Channel (MT 798), which enables corporates and banks to digitise and standardise their documentary trade interactions, grew significantly during 2020, signalling the pandemic induced shift to digital (Figure 7). The Digital Trade Channel is a multibank standard for automating corporate to bank documentary trade flows such as LCs and Guarantees. Corporates and their banks can exchange standardised trade data, as well as trade documents, over a single SWIFT channel. Europe continues to lead in utilisation of the Digital Trade Channel, illustrating the potential for this global standard to grow further.

Figure 1 – Total volume of documentary trade broken down by product

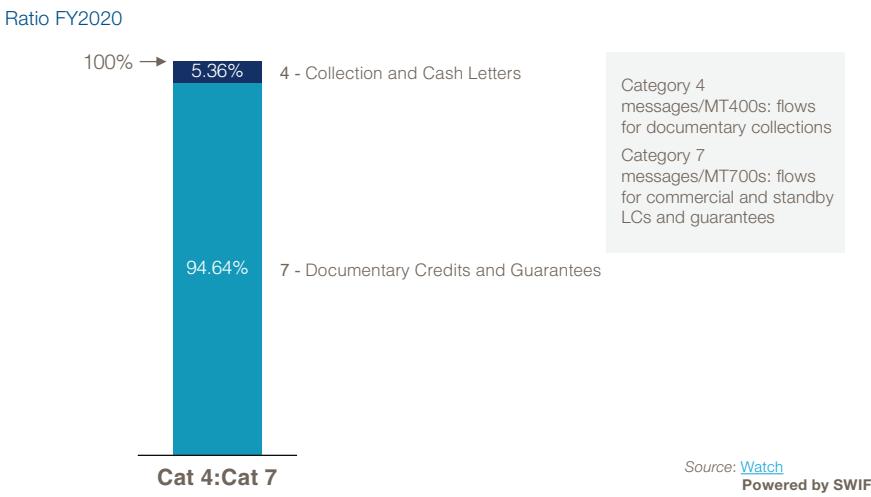
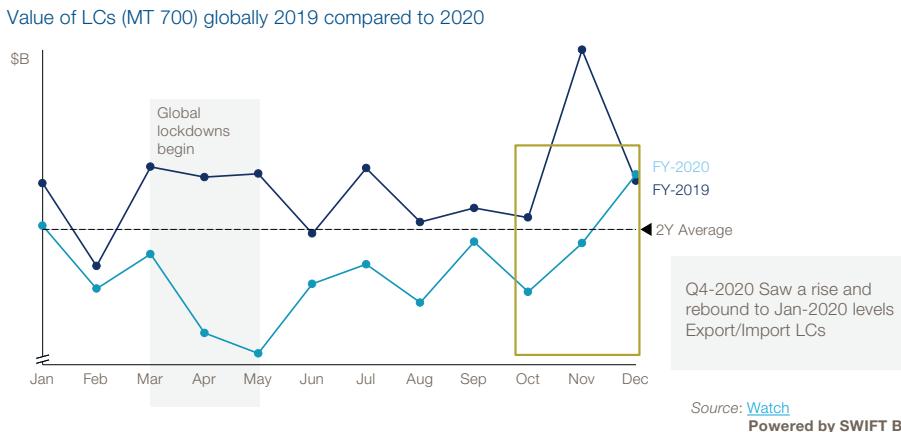


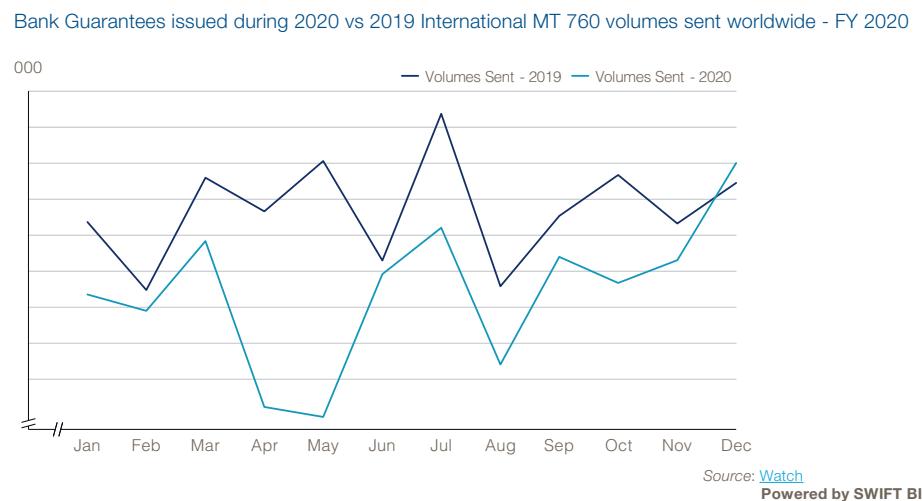
Figure 2 – Letters of Credit values recover



“ Looking at the impact of COVID-19 in isolation, there absolutely should be a shift towards more convenient means of trade financing that do not rely on paper documentation. However, at the same time, we are seeing a shift from a global, interconnected economy to de-globalised trade and increased uncertainty due to volatile commodity prices and geopolitical tensions. This is driving people back towards traditional documentary trade instruments. The two effects seem to be balancing each other out. ”

Daniel Schmand, Head of Trade Finance and Lending at Deutsche Bank

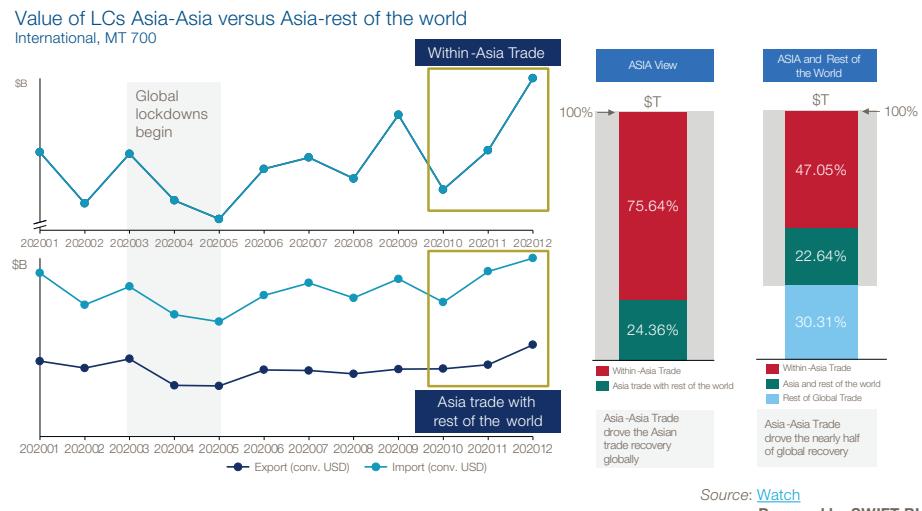
Figure 3 – Guarantee volumes recover



Regional dynamics

Over two thirds of global documentary trade on SWIFT came from Asia, which further increased its share in global LCs values in 2020.

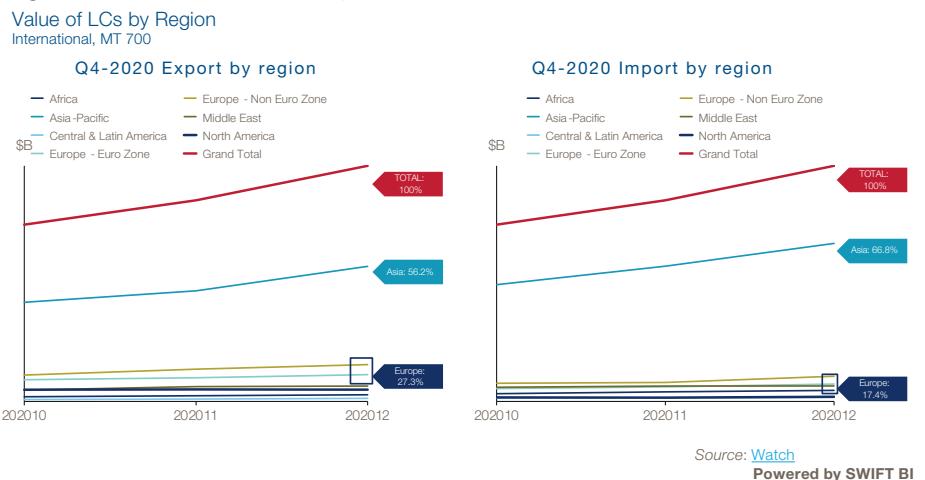
Figure 4 – Intra-regional trade Asia



"As the health crisis unfolded there were concerns that emerging markets would bear the brunt of both the health and economic crisis. The uncertainty was rife, not least for tourism and export dependant emerging markets. However, what we saw in 2020 was that emerging markets trade recovered much faster – in just two quarters in fact. Compare that with the global financial crisis when recovery in emerging market trade exports took 6 to 7 quarters. Two thirds of global growth comes from Asia, which is largely emerging markets. Intra-regional trade is a large driver of the recovery."

Eric Robertsen, Global Head of Research, Standard Chartered

Figure 5 – Global documentary trade finance



IMF Opinion

SWIFT data as a forecasting tool for world trade

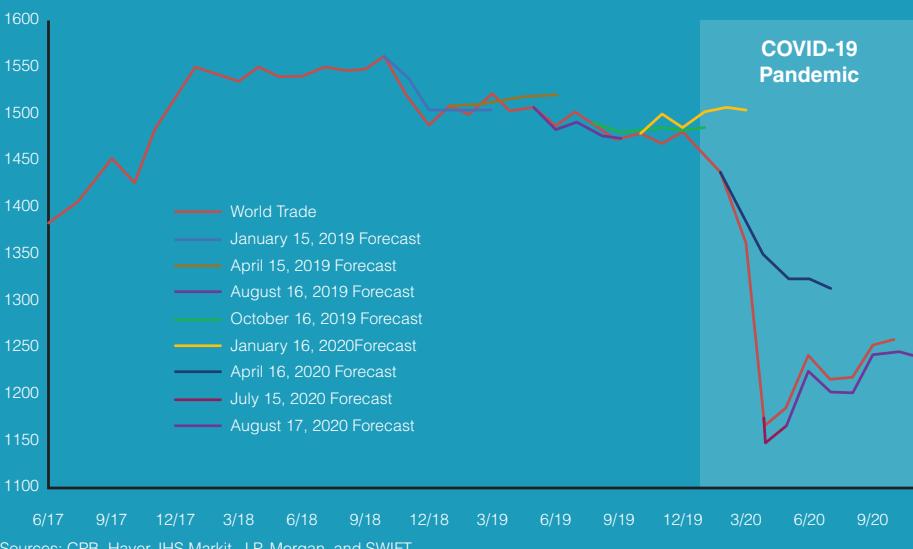
IMF research leveraged data from SWIFT LCs, together with crude oil prices and the new export orders subcomponent of the manufacturing Purchasing Managers' Index, to improve the short-term forecast of international trade. The research used both linear regressions and machine-learning algorithms to forecast world trade and national exports and imports for 40 of the largest economies in the world.

The paper concludes that SWIFT LC messaging, which facilitates the majority of global documentary trade, has predictive power in short-term forecasts of world trade and of national trade for selected countries. LC messages can also help predict turning points in international trade.

These forecasts have been particularly useful in recent months to gauge the impact of the COVID-19 pandemic, as they provided an early indication of the trajectory of global economic activity (Figure 6). These forecasts were able to point to a moderate rebound in world trade in the second half of 2020, following the significant decline in the first half of the year. The trade decline witnessed so far during the pandemic, however, has been less pronounced than during the Global Financial Crisis in 2008-09, since the pandemic has had a larger impact on services (e.g. tourism and hospitality).

Figure 6

Rolling forecasts of world trade (billions of US dollars; seasonally adjusted)



Overall, SWIFT LC messages are good proxies for future trade activity, thus providing an early indicator of the trajectory of global economic activity. In this respect, LC messages represent a valuable data asset that could assist the SWIFT community to gauge the direction of the global economy on a real-time basis.

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Impact of the pandemic on trade processes

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The pandemic has created greater acceptability that digitisation is the way forward for trade. Elsewhere, people were working from home, logging into their business networks, students were learning remotely and e-commerce volumes surged. Digital facilities are finding their way into the entire ecosystem and trade is an essential part of the value chain and will be required to facilitate economic recovery. That is why digitising trade processes is so important.”

Sunil Mehta, Chief Executive, Indian Banks' Association

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The pandemic presented the international trade community with an unprecedented and volatile situation in which conditions could change from day-to-day. The health crisis magnified the friction and inefficiencies caused by the paper-based nature of trade. In many countries, the basic delivery of physical documents was challenged by lockdowns, giving rise to delays, uncertainty and further costs.

Shipping capacity was reduced as the industry reacted to initial shocks to demand, mirrored sharply in the collapse of oil prices. Staffing pressures arising from quarantine and social distancing measures further complicated matters. As e-commerce surged and countries reopened – demand rebounded quickly – to face reduced capacity and later the Suez Canal blockage. All of this contributed to freight costs skyrocketing, adding to supply chain fragilities. It is no surprise that research from McKinsey Global Institute highlights that 93% of supply chain executives plan to take steps to make their supply chains more resilient⁹.

Other events also increased the call to move away from manual processes. For example, in the financial supply chain, risks were magnified when the commodity trade finance sector was shocked by fraud allegations. Some financial institutions had announced that they were exiting the sector. The Monetary Authority of Singapore explicitly called out the steps to prevent such fraudulent activities that included “a move away from paper-based processes, as they are more susceptible to risk of fraud¹⁰”.

The manual and paper-based vulnerabilities of global trade were hugely magnified, with reports of couriers being unable to deliver the physical documents that underpin crucial access to trade finance. Shippers were also unable to dock at ports and unload cargo. Some banks rapidly adopted electronic signature solutions in the absence of wet ink signatures and increased investment in systems such as intelligent document recognition. While many banks had already embarked upon various means of digitising their back offices, less progress had been made digitising the interaction between banks and their clients. Electronically replicating the legal and functional equivalence of some of the most important trade documents – like the bill of lading (B/L) – in the absence of legal certainty, harmonisation and digital standards is particularly challenging. The pandemic elevated the topic of trade digitisation to the C-suite as mitigating supply chain disruption became a matter of resiliency and business continuity management.

“The key steps that remain in digitisation of trade finance are to have digital standards and a harmonised legal framework that would both build trust and propel the commercialisation of new solutions and platforms.”

Vinay Mendonca, HSBC

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Pandemic a catalyst of digitisation

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The number of digital islands is increasing as companies, industries and governments digitise in their own silos. As a result, this is creating new challenges in addition to the inefficiency of paper and difficulties in business continuity seen during pandemic.

Michael Vrontamitis, Co-chair ICC Working Group on the Digitisation of Trade Finance

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COVID-19 motivated a shift to digital – like nothing the industry has ever seen before – across the entire spectrum of commerce. McKinsey's global study of executives showed a rapid shift towards digital channels, with 75% of people surveyed indicating they were using digital channels for the first time¹¹, and will continue when things return to “normal”. Key beneficiaries have been the digital giants such as Amazon, delivering over \$100 billion in sales revenue per quarter in Q4 2020 and again in Q1 2021¹². The United Nations (UN) declared the pandemic has accelerated digital transformation and further encouraged the establishment of platforms and portals to help MSMEs access markets, including e-procurement portals¹³.

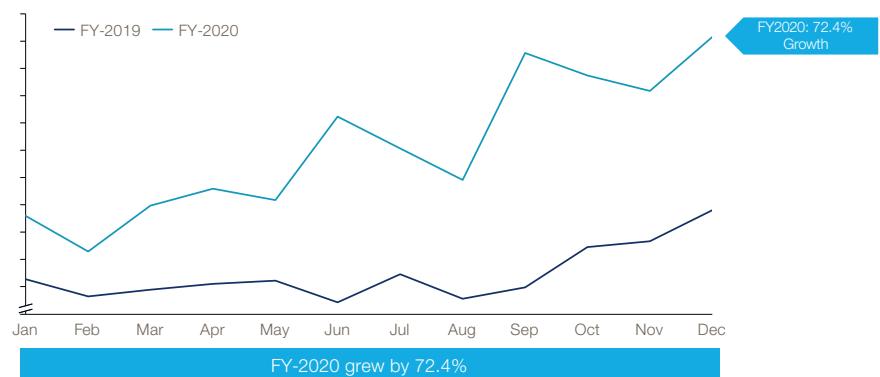
Trade finance underpins the movement of goods and services cross-border, providing crucial liquidity and risk mitigation to buyers and sellers. The “platformification” of trade finance can be broadly defined as the quest to hyperautomate and integrate workflows. The industry was already working towards this pre-pandemic, albeit with varying degrees of progress. Corporates report frustration with fragmented solutions that have not scaled and adoption of electronic bills of lading stands at only 0.1%¹⁴.

The International Chamber of Commerce (ICC) working group on Digitisation in Trade Finance published a paper on rapid response measures taken by banks during COVID-19¹⁵, linking to a wider body of guidance for navigating the pandemic induced challenges, not least trade's single most persistent vulnerability – paper. The ICC also launched the Digital Standards Initiative (DSI) in the second half of 2020. In December 2020, following industry calls for standards and interoperability in a digital trade ecosystem, the Digital Container Shipping Association (DCSA) – a neutral not-for-profit entity – published data and process standards for the submission of shipping instructions and issuance of the bill of lading¹⁶. All of these efforts pave the way for paperless trade.

Despite the overall drop in global trade, usage of SWIFT's Digital Trade Channel solution (MT 798) increased by 72.4% in 2020 illustrating the appetite among corporations for digitisation (see Figure 7).

Figure 7 – Global Digital Trade Channel

COVID as a catalyst for corporate digitisation?
Volume of MT 798 globally 2019 vs 2020



Source: [Watch](#)
Powered by SWIFT BI

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The banking industry looked to how it could leverage digital channels to support our client base, rolling out proprietary internet communications, along with SWIFT, emails and electronic signatures. There was a multidimensional impact and the community stuck together to enable movement of the financial supply chain.

Michael Spiegel, Global Head, Transaction Banking, Standard Chartered

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SWIFT's solution takes the physical nature out of a transaction and there is definitely interest from the industry in this new type of digital channel. Digitising documents is a step in the right direction. We are now looking to commercialise it, which requires some minor changes to the way LCs are structured. Although this type of solution will not work for all LCs, it will serve as a building block to enabling a full digital end to end flow.

Merlin Dowsse, Executive Director, Global Trade Product Manager at J.P. Morgan

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Tackling the paper friction at scale and without costs

Prior to the onset of the COVID-19 pandemic, SWIFT and a group of trade banks had also been working on a proof of value (POV) to tackle the paper burden of trade. The initiative involved repurposing existing secure solutions (FileAct and MT 759) to facilitate LC presentation by enabling participants to digitally exchange the physical documents and link them to the underlying LC. This solution could reduce up to 30% of paper related to documentary trade¹⁷, notably in non-maritime transportation or in maritime transport where non-negotiable sea waybills, surrender bills of lading (Telex release B/L, Direct release B/L) or Letter of Indemnity (LOI) are used.

In a rapid response measure to help keep trade moving during the pandemic, SWIFT accelerated the successful POV into a live service. The solution applies to corporate-to-bank as well as bank-to-bank LC presentation. SWIFT published guidance on how the network can securely transport scanned trade documents to over 200 countries, in seconds. In recognition of the unprecedented challenges that the community faces, the solution is currently fee-free. This represents a step towards industry commercialisation of ICC's electronic Uniform Customs and Practice for Documentary Credits (eUCP) rules.

Recognising the added complexity involved in trying to digitise key trade documents like B/L, during Sibos 2020 SWIFT signed a Memorandum of Intent with Singapore Infocomm Media Development Authority (IMDA) to collaborate on trade digitisation¹⁸.

“By updating its Electronic Transactions Act, Singapore has set a shining example for countries still stuck in a paper-based past”

John WH Denton, Secretary General International Chamber of Commerce

The ICC eUCP and beyond?

UCP – harmonising global trade for over 80 years

Documentary credits (or letters of credit) are governed by an international code of practice drawn up by the ICC, known as Uniform Customs and Practice for Documentary Credits (UCP). These rules were introduced to alleviate the disparity between national and regional rules on documentary credit practice. First published in 1933, the latest version is known as UCP 600. It is made up of 39 Articles, which establish the requirements necessary to regulate documentary credit operations.

Scope of eUCP – enabling the digitisation of trade

- Presentation of electronic records – alone or in combination with paper (The eUCP does not cover the issuance of a eUCP credit¹⁹)
- Based upon UCP 600 and existing standing practice for e-commerce transactions

Why do we need the eUCP?

Existing rules (UCP 600) are great in a paper world but they provide limited protection when applied to electronic transactions. The new rules provide many benefits in a digital world, crucially including (but not limited to) clearly supporting the usage of electronic records and providing confidence in a set of independent and trusted contractual rules²⁰.

This is important in the trade digitisation journey as it helps avoid the notorious friction and fragmentation of divergent practices.

What about the legal status of electronic transferable records like the B/L?

With all change management, a shift towards the eUCP will require users to embark upon a risk and control review across operations, technology, and legal. Customer engagement is also key. The ICC has published supporting guidelines²¹ and materials, with more to come as the Digital Standards Initiative looks to help tackle title and liabilities.

The need for, and benefits of, trade digitisation have never been clearer. Whilst the industry is awash with trade digitisation initiatives, are the existing tools available to us, like eUCP, being leveraged to their full potential?

“Sometimes a paper document is not completely necessary, but is used out of habit. BNP Paribas is conducting a review of all of the use cases for trade documents. For example, if you are not engaging in maritime transport, you do not need a bill of lading. This can dramatically diminish the number of paper documents required and in some cases can be done on a paperless basis. We will also explain and train both bank staff and our corporate client staff in what is really required. For that you do not need new technology or platforms; it is just a clean-up process.”

Jean-Francois Denis, Global Head of Trade Solutions and Network Management, BNP Paribas

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Challenges to digitisation

Digitising trade is not solely a technology narrative – legal barriers, a lack of standards and fragmentation, have to be addressed.

Legal challenges with transferable records

Trade digitisation efforts often face legal hurdles. International trade has traditionally been associated with a need to hold key documents such as a bill of lading, which may, for instance, permit the holder to take delivery of the goods, or otherwise act as a document of title. Often these documents would be subject to physical movement between the carrier, buyer, supplier and their banks. Such documents, in many cases, would serve to give holders specific legal rights. However, it has not always been clear if those rights would still apply when the document is in electronic form.

The banking industry therefore wrestles with legal uncertainties around electronic transferable documents. These include bills of exchange and bills of lading. These are examples of transferable documents or instruments that would entitle the holder to claim the performance of an obligation (such as delivery or payment) or otherwise allow the transfer of the claim to that performance by transferring possession of that document or instrument. In certain jurisdictions, however, laws (whether codified, or otherwise forming the body of applicable common law) may not have kept pace with the concept of possessing something that is intangible, such as an electronic transferable document. Questions may therefore arise over the reliability, security and controllability of a digital (intangible) version of say, a bill of lading or exchange, to perform the equivalent legal function as its paper version. This is particularly so given the risk that multiple electronic copies might easily exist of such documents in a transaction, which would not present itself if traditional, paper-based original versions had been mandated.

Replicating in electronic form the transferable nature of key documents and instruments like the original bill of lading or exchange can be both technically and legally complex. How do parties evaluate how legal rights and liabilities ought to pass between them? Ultimately, how should the disparate stakeholders involved in international trade convene to technical solutions that are sufficiently reliable, secure and controllable while being fit for purpose?

“The pandemic highlighted how antiquated the industry is in relying on physical paper – in certain countries the use of paper actually increased. However, we believe we are at a turning point as the industry has worked on the digitisation of trade for more than 20 years. The banking industry continues to advocate for change but we cannot do this alone; we need the voice of customers and that has to resonate with lawmakers in every jurisdiction.”

Merlin Dowse, J.P. Morgan

Standards

Without standards, processes become unreliable and outcomes uncertain. If standards are developed to only solve point problems in individual domains, players will need to have competence in multiple platforms and ecosystems. This creates costs, risks and limitations.

Rich data and standards are essential. The ability to carry data about the trade transaction in a standardised form, which can be readily understood and reported is crucial. Rich data is also a key requirement for financial crime



The pandemic is a clear accelerator for digitisation, but it is difficult to say if it is a tipping point. It has, however, given the industry the confidence that digitisation is possible. One of the reasons the industry has not moved as fast as it could on digitisation is that institutions have become used to the status quo having operated as they have for a long time; digitisation had not necessarily been a high priority for corporate treasurers. For the industry to reach a tipping point. We need mass adoption and the work around standards will be a crucial milestone to achieving this. Trade is a big mountain to move; COVID-19 was a shakeup.

Ebru Pakcan, Head of EMEA Emerging Markets at Citi



compliance, which dramatically increases with international trade. Trade is a vast, global ecosystem; and for digitisation efforts to scale and thrive, common standards are needed to connect platforms, processes and participants on multiple different levels. This goes beyond standardising financial instruments and processes because as more digital islands emerge, so do more security, privacy and identity standards, creating more fragmentation and higher costs.

Digital identity is key to tackling fraud. The trade-off between privacy and financial crime compliance will need careful consideration. All of this gives rise to the need for high governance standards to clearly define roles and responsibilities as well as the operating rules, underscoring the importance of neutrality and inclusion.

“To get everyone around the world aligned on standard rules and processes will be an exceptionally long road and possibly not something we will see in our lifetimes. Take the example of SEPA in Europe, which took 11-12 years to implement. That was a single region, a simple process of a credit transfer and involved a strong regulatory push. For trade, there needs to be an international body that can impose a requirement for digitising trade.”

Jean-Francois Denis, BNP Paribas

Fragmentation

Trade involves myriad actors, technologies, standards, rules, regulations and legal jurisdictions. As such, it is unlikely that one platform could cover the entire ecosystem; furthermore a single platform raises challenges in terms of competition and systemic risk.

Given the breadth and complexity of the ecosystem, it is not surprising that efforts to digitise are fragmented. Financial institutions to some extent are, investigating technologies such as DLT, smart contracts, internet of things (IOT), artificial intelligence and machine learning. Digital trade platforms, some operated by governments and some by private enterprises – have mushroomed – creating ‘digital islands’. Different processes, workflows, actors, functionalities and ultimately data – exist in different platforms and they will need to interoperate in a flexible way to automate and integrate the end-to-end transaction. In the absence of interoperability, the adoption and sustainability of multiple platforms may be challenging, as fragmentation can create higher costs and reduced utility.

The benefits of APIs are promising; however fragmentation within financial services still exists today. When different organisations design APIs to their own specifications, integrating these APIs can become difficult for end customers, as they must start from scratch for each institution they work with. This reduces interoperability and ultimately limits their impact and reach. Furthermore, in an industry fraught with legal uncertainty, are APIs enough for digitisation?

Legal uncertainty is one key reason why trade is still so heavily paper based



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Key enablers of trade finance digitisation

The 47th G7 summit has agreed implementing a structured dialogue on enabling businesses to use electronic transferable records to generate efficiencies and economic savings to further global economic recovery. In support of this aim it has endorsed the framework for G7 collaboration on electronic transferable records, which contains a commitment to promote the adoption of legal frameworks compatible with the principles of UNCITRAL MLETR.

Sean Edwards, Chairman of ITFA and Head of Legal & Specialist Advisor of Global Trade, SMBC

Digitising trade is a complex issue, but there is a great deal at stake commercially. As the world emerges from the pandemic crisis, global trade will have a significant role to play in economic growth and recovery. At the same time, corporates and financial institutions will be seeking cost efficiencies and supply chain resilience through greater digitisation.

At present, no clear winner has emerged, in terms of technology or platforms. Widespread adoption of digitisation may hinge on greater interoperability underpinned by legal harmonisation and standards.

The ICC working group on Digitisation in Trade Finance has developed a digital trade roadmap²² setting out concrete policy changes that will promote the global digital agenda. The roadmap highlights the challenges to trade digitisation and clearly articulates actions that can be taken by the ICC, the trade industry and governments.

Legal harmonisation

As governments work to remove legal barriers to trade digitisation, it is also important that stakeholders within the industry champion digital transformation; engaging in consultations and driving awareness and change within their organisations. Recognising that it may take time for other countries to follow suit in the adoption of MLETR or its equivalent to give legal certainty to digital trade documents, SWIFT is engaged with the ICC DSI. Complimenting and paving the way for these seismic shifts in statute law reform, the ICC DSI is working on a rapid response to the unprecedented need for digitisation through the creation of a new rulebook addressing title registry and transfer of possession. The vision is that buyers, sellers and shippers would incorporate these open terms into their existing commercial agreements. These new “digital terms” would define roles and responsibilities, enabling documents and data to move across the supply chain underpinned by a set of open, accessible, technology-agnostic and independent rules. This could serve as a bridge for the ecosystem to further global legal reforms.

“Electronic documents have the potential to make global trade more efficient, cheaper and more secure. Until the law catches up with the relevant technology, however, these benefits – worth billions every year – will not be realised. Our proposals would bring the law and global trade into the 21st century, generating benefits on an international scale.”

Professor Sarah Green, Law Commission of England & Wales

“The MLETR will be an important part of the normalisation and standardisation required for digitisation. It is critically important that independent bodies such as the UN, the ICC, BAFT etc. address the legal challenges with digitisation and on the other side, the industry collectively lobbies to influence governments to accept this legal framework.”

Michael Spiegel, Standard Chartered

Data, standards and interoperability

The ICC and SWIFT have long played a role in facilitating trillions of dollars in global trade through tools including the UCP and SWIFT messaging standards.

One of the most significant standards developments in the past decade is ISO 20022, which is rapidly becoming ubiquitous in the financial services industry. ISO 20022 is the open-methodology for developing new financial messaging standards and harmonising existing ones. The standard is used in more than 70 countries and is not controlled by a single interest, it is open for all to use and can be implemented on any network. In trade, ISO 20022’s rich data could help to enable digitisation. It can also help to facilitate interoperability as it lends itself to APIs and DLT. This goes beyond the technology; richer standardised data could better equip financial institutions to manage the multiple binding constraints on the trade finance business – from trade-based money laundering to regulatory capital optimisation.

Linked to data and messaging standards is identity standards. A very strong identity framework is required to guarantee the identity of parties involved in a trade transaction and to support non-repudiation of activities performed by the various actors. This is essential to provide trust in the system and ensure accountability. It is also a prerequisite to be able to perform KYC and compliance checks. The identities of both the participant organisation and those employees instructing the transactions will need to be traceable in a controlled fashion, that is to say, only by those who should have access. SWIFT Public Key Infrastructure, a pervasive security infrastructure based on public-key cryptography, provides digital signatures and supporting certification services to entities, typically end users, applications and SWIFT interfaces – enabling them to securely authenticate and/or to digitally sign transactions. SWIFT has also developed a number of solutions to address the growing financial crime and cybersecurity challenges faced by our industry such as sanctions screening, the SWIFT KYC Registry, and powerful compliance analytics and fraud control tools. In order to protect the global financial system from money laundering and financing of illegal and criminal activities, these are some existing capabilities that could be potentially leveraged.

In an ecosystem as complex and broad as global trade, standardisation and interoperability play a crucial role in ensuring connectivity between both physical and financial supply chains. The ICC has identified a need to create open trade standards to promote interoperability amongst trade platforms and ecosystems (see The Digital Trade Standards Initiative, p19).

TradeTrust: differentiating by facilitating collaboration across the ecosystem

In March 2019, Singapore's IMDA launched a unique effort to solve the longstanding issue of paperless cross-border trade, tackling it in a holistic manner and taking an “ecosystem view” of how it should change. “One of the questions we asked was ‘why is there still so much paper?’” says Mr Sin Yong Loh, Director, Trade at IMDA.

The result is TradeTrust, which is not simply another technology platform but rather an interoperability framework seeking to connect the ecosystem and enable the exchange of digital trade documentation. The initial focus is digitising negotiable instruments – notably the B/L. This effort is not restricted to Singapore shores nor to financial supply chains in silos, but rather TradeTrust seeks to facilitate interoperability across the fragmented global trade ecosystem. IMDA is collaborating with other governments and public authorities, including the Port of Rotterdam Authority, Commerce Bureau Shenzhen Municipality in China²³ and Australia Border Force. Partnerships with the ICC and 17 international corporations at the 2020 World Economic Forum’s annual meeting in Davos also accelerated the adoption of digital technologies in trade and commerce²⁴.

Recognising that technology alone is not enough, TradeTrust adopts a multi-faceted approach. The four key components of TradeTrust are:



TradeTrust aims to provide proof of authenticity, provenance and legal title transfer, key components for achieving seamless, frictionless transactions.

In March 2021, Singapore's Electronic Transactions Act (ETA) was amended to adopt the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Transferable Records (MLETR) with modifications into Singapore law, and for the ETA to apply to transferable documents or instruments such as Bills of Lading. The ETA amendments will enable the creation and use of electronic Bills of Lading (eBLS) that are functionally equivalent to paper-based Bills of Lading.

“The complex nature of trade, which involves multiple diverse parties, presents significant coordination problems. In my experience, a normal commercial entity would be hard-pressed to spearhead such a multi-faceted approach. This is something that governments need to take the lead on as well as to orchestrate private sector efforts and we are engaged in multilateral, broad based discussions involving many countries about digitising negotiable instruments.”

Sin Yong Loh, IMDA

“The PBC is actively driving the digitisation of trade. Collaboration between the PBC Trade Finance Platform and other trade platforms is key to create a global expressway of trade. Crucially, interoperability amongst platforms is a key enabler of trade digitisation. This notion of interoperability in global trade, is fundamentally underpinned by common, trusted, global standards.

Mu Changchun, Director-General, Digital Money Institute, People's Bank of China

“Standardisation will play a significant role in trade digitisation. Getting agreement in the industry and among tax and customs authorities of different countries as to what can be digitised, what formats to be used and how fraud can be prevented will help to overcome the challenges the industry has faced in digitising trade. Everyone needs to come together to push a common agenda and work towards a common goal.”

Michael Spiegel, Standard Chartered

Digitising trade flows is not simply a matter of banks and technology platforms; above all else, the transaction starts with buyers, suppliers and their data. Therefore, the physical and financial supply chains must come together to truly achieve end-to-end digitisation. What is acceptable in one country or one industry may not be in another; what works for one sector could challenge business models in others.

As SWIFT continues to explore innovation and new ways to support members, we are working on a digital trade innovation project – working with progressive, open initiatives like TradeTrust and the ICC's DSI to assess what roles SWIFT could play in the future trade ecosystem. We are designing experiments that focus on how SWIFT could help solve for title and document transfer. Against the backdrop of statute law reforms, these experiments could offer legal certainty to electronic documents.

“SWIFT is in such an enviable position in terms of market share on channel domain. This can so easily be leveraged to drive market adoption (and resulting scale) on new product capabilities and interoperability with digital islands who are increasingly becoming part of an evolving Trade ecosystem, attributes that some of the other DLT platforms and marketplaces are looking to emulate. In this regard, API standardisation can be a real value add for corporates and banks alike given their light architectural footprint, besides it is not economically feasible to keep connecting to disparate digital islands. Investment money and time to market is finite, so it has to go towards sustainable and scalable options and those that do not create additional governance obligations. Adoption follows where standardisation leads. APIs are only tip of the iceberg, SWIFT rails can also be used to solve for trust, transparency (digital KYC) and traceability (gpi), which are so valuable for efficacy of cross-border trade. The good news is that the network already exists, we just need to re-purpose and re-imagine its use.”

Bhavna Saraf, Managing Director, Product Lead (Head of), Commercial Business Transformation (Bank of the Future), Lloyds Banking Group & Chair of SWIFT UK Trade Advisory Group

The International Chamber of Commerce Digital Standards Initiative (DSI)

Launched in 2020, the DSI is a collaborative, cross-industry effort to enable the standardisation of digital trade. It will promote greater economic inclusion through the development of open trade standards, which will facilitate technical interoperability among the variety of digitisation efforts that have proliferated in the trade space during the past few years.

"Ultimately, DSI is trying to help all the stakeholders in trade globally to transition off paper and on to digital, enabling our supply chains to become more resilient and interoperable in the future," says Mr Oswald Kuyler, managing director of the ICC DSI.

The need for legal harmonisation is a topic that has not attracted enough attention, says Mr Kuyler. "DSI will be looking at how countries can transition from legislation that is very physical document-oriented, often requiring wet signatures, to digital-enabled laws. More people need to become familiar with the UNCITRAL MLETR and realise the part that it can play in the digitisation of trade."

In addition to championing legislative reform, on the standards front, the DSI will focus on both unifying and harmonising standards efforts as well as driving the creation of new standards for the digital trade ecosystem. "We don't want to reinvent the wheel and will lean on existing standards, helping fill gaps where needed" says Mr Kuyler.

The technology to support digital trade is not solely blockchain – enabling the move from physical paper to digital will involve blockchain networks and proven platforms that have scale. "The existing platforms need to become interoperable so that information can be exchanged across them."

Mr Kuyler says the DSI will "demystify what is required to transition to digital trade" by bringing the ecosystem together to focus on unification of standards, interoperability and legislative reform.

"We are not at the beginning of the trade digitisation journey, but are probably in the middle of it. I think the industry is around five to ten years from having it solved. By focusing on three elements – legislation, standardisation and technology, we will be able to make the transition in a sustainable way."

Oswald Kuyler, International Chamber of Commerce

"Bringing the community together will be the task of a supranational organisation such as BAFT, ICC, SWIFT, and WTO. SWIFT is in a unique position, as it is reliable and trusted. To bring the industry together for a digital trade solution, you need market share, global reach, reliability and trust."

Daniel Schmand, Deutsche Bank

07 Conclusion

The pandemic accentuated the friction, inefficiencies and risks associated with paper-based and manual processes in trade. The lessons learned and the processes put in place can serve as a foundation for the further digitisation of trade. However, the trade ecosystem is extremely broad and complex, and tackling the friction will require key parties to come together – to unify, harmonise and democratise digitisation for the greater good of the global community. The industry has an opportunity to focus more on crucial but often neglected enablers including standardisation, interoperability and legal harmonisation, all of which play a key role in addressing the current fragmentation and challenges to digital trade.

The risks, not least losses, of supply chain disruptions and of fraud have never been so visible. Executives are broadly unanimous in their plans to take action to foster greater resiliency. Governments are increasingly taking action. The need to drive improved financial inclusion as a lever for economic recovery has never been more timely. Trade has significant dependence upon the availability of trade financing. The digitisation of trade finance – the unlocking of powerful richer data – has a crucial role to play on multiple levels.

The stage is set for seismic shifts. What role will you play?

The challenge before us in digitising trade is not to build another closed-loop trade platform. History has shown us that such an approach does not work. Trade digitisation is not about domination; but rather it is about collaboration and interoperability, which can be enabled through common standards and legal harmonisation. Technology is an enabler, but technology alone is not enough.

Global bodies such as SWIFT, the UN, ICC, GLIEF and the DCSA are uniquely placed to help drive these developments.

SWIFT has identified three key areas in which we can bring our expertise to the forefront and help tackle friction in global trade:

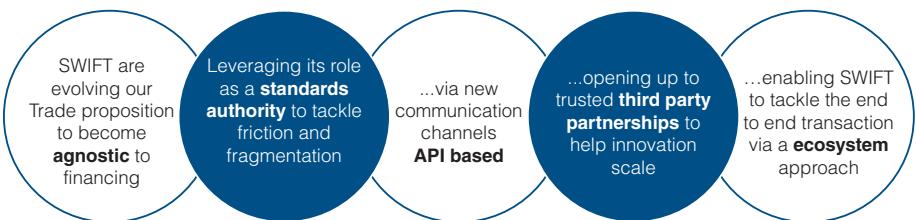
- Digitise and standardise – co-create new digital standards to tackle friction and fragmentation. Work with the community to establish a SWIFT catalogue of trade-based APIs for banks and corporates.
- Foster interoperability and help create a rich ecosystem of value-added services – connecting SWIFT with third-party platforms. Helping to co-create, standardise and scale new value-added services for banks and corporates enabled via industry standardised APIs that benefit from the trusted single identity and security protocols that characterise SWIFT's API platform.
- Advocacy – work with bodies like the ICC, UNCITRAL, BAFT and industry associations to help tackle paper in both documentary and open account trade through harmonised legislative reforms. Support open, standardised approaches to trade digitisation.

SWIFT already digitises more than USD 2 trillion in global trade, enabling interoperability between thousands of banks and corporates in over 200 countries and territories. This expertise and technology is an invaluable asset when designing the financial market infrastructures of the future. SWIFT's record of 99.999% service availability is integral to our value proposition to the more than 11,000 institutions on our network where messages move in seconds, and cost cents.

Over the next two years and beyond, SWIFT will deliver an exciting strategic roadmap with our global community that will expand SWIFT capabilities to provide comprehensive transaction management services. The next-generation digital platform will use APIs and cloud technology to provide a set of common processing services that banks have historically invested in individually, saving the industry time and money. The fundamental premise of SWIFT's transaction management vision is that it allows interoperability between different standards, channels, protocols and across currencies, whilst embedding adjacent value-added services.

SWIFT's API and partnership strategy enables the community to standardise and scale digitised solutions, be they proprietary or from third-parties and agnostic to the trade financing product – enabled via a global, standardised and trusted channel. Ironically, the explosion of exciting innovation in digital trade threatens to slow down the pace of progress unless industry stakeholders come together. As the trade ecosystem embarks on its digitisation journey, SWIFT urges all to consider the longer-term ramifications of fragmented standards, identity and security protocols and to take time to understand the benefits of harmonised legislative reforms.

Now is the time to take this opportunity to engage with SWIFT, other standards bodies and policy makers, to help evolve a shared global, interoperable and trusted trade ecosystem.



"There is no magic wand that can be waved to digitise the trade industry. The ecosystem is large and complex, with varying degrees of regulations, policies and guidelines. We just need to work together."

Ebru Pakcan, Citi

How SWIFT is supporting the community with standards harmonisation

ISO 20022 – harmonising standards for the trade finance ecosystem

As an initiative of the International Organisation for Standardisation (ISO), ISO 20022 is the open methodology for developing new financial messaging standards and for harmonising existing financial messaging standards. SWIFT is the registration authority of ISO 20022, tasked with maintaining the development of financial messaging standards.

Benefits of ISO 20022

1. *Richer, better structured and more granular data*
ISO 20022 enables richer, better-structured and more granular data end-to-end to be carried in trade and payments messages.
2. *Quality data means quality trade and payments transactions*
More transparency and more transactional information for your customers, which in turn means better customer service and a better customer experience.
3. *Improved analytics, less manual intervention*
Further operational benefits include improved analytics, less manual intervention, more accurate compliance processes, higher resilience and improved fraud prevention measures.
4. *Supporting end-to-end automation*
A single standard that covers all business domains and end-to-end business processes, ISO 20022 facilitates the creation of new services and enhanced straight-through processing.
5. *Using modern technology*
ISO 20022 uses modern, mainstream XML technology which is well supported and which facilitates efficient integration.
6. *Worldwide adoption*
Almost 200 market infrastructure driven initiatives are either already implementing ISO 20022 or are considering adopting the standard for trade, payments and securities transformation projects.

SWIFT API platform: A strategic channel for the trade ecosystem

SWIFT has invested significantly in API technology in recent years to deliver to its customers real-time, flexible access to innovative new products underlined with security, identity and openness. Adoption and usage of the SWIFT API platform is increasing significantly year-on-year, with over two billion API calls made by the platform users in 2020.

API services on our platform are not only offered by SWIFT, but also by trusted third-parties, so our community can benefit from a breadth of innovative trade solutions on our platform. The strategic importance of our API channel will only increase moving forward, as we expand the range of products and services that can be accessed via this channel. Importantly, SWIFT users will be able to interact with our future transaction management platform natively via our API channel.

Building towards the next generation of API infrastructure and connectivity, SWIFT has developed a modern and fully scalable API infrastructure as the foundation for future growth of this strategic channel. SWIFT has also developed a new generation of API connectivity options for its customers: the SWIFT Microgateway and SWIFT Software Develop Kit (SDK).

Both connectivity solutions offer users flexible and cost-effective access to all current and future API services hosted on our platform, – whether delivered by SWIFT, or by third-parties.

-  **Consume standardised products**
-  **Trusted network with the community working to the same standards, SLA & rule-book**
-  **Design and create APIs built for purpose**
-  **Single community platform access for all APIs**
-  **Real-time access to innovative services offered by SWIFT and trusted third-parties**

2bn+
Cumulative API calls in 2020

400+
API institutional consumers

FOOTNOTES

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About SWIFT

SWIFT is a global member owned cooperative and the world's leading provider of secure financial messaging services.

We provide our community with a platform for messaging and standards for communicating, and we offer products and services to facilitate access and integration, identification, analysis and regulatory compliance.

Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories. While SWIFT does not hold funds or manage accounts on behalf of customers, we enable our global community of users to communicate securely, exchanging standardised financial messages in a reliable way, thereby supporting global and local financial flows, as well as trade and commerce all around the world.

As their trusted provider, we relentlessly pursue operational excellence; we support our community in addressing cyber threats; and we continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies. Our products and services support our community's access and integration, business intelligence, reference data and financial crime compliance needs. SWIFT also brings the financial community together – at global, regional and local levels – to shape market practice, define standards and debate issues of mutual interest or concern.

Headquartered in Belgium, SWIFT's international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT's international office network ensures an active presence in all the major global financial centres.

For more information about SWIFT, visit www.swift.com.