Pioneering innovation for the global financial community
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SWIFT has a long history of innovation. For over 40 years, we have brought the financial community together – at global, regional and local levels – to develop forward-thinking technology, shape market practice, define standards and debate issues of mutual interest or concern.

As a member-owned cooperative, we recognise collaboration is the cornerstone of innovation. Regular engagement with our ecosystem of 11,000 institutions gives us a unique and deep understanding of the key challenges businesses of all types face in today’s financial markets.

Working together with this community, we are leveraging innovative technology to adapt, enhance and grow our products and services in areas such as payments, financial messaging, cyber security and financial crime compliance, and helping set standards for interoperability, and automation.

Payments
Distributed ledger technology
Standards
Collaboration
Connectivity and integration
Services
Payments

SWIFT global payments innovation (gpi)

SWIFT gpi dramatically improves the customer experience in cross-border payments by increasing speed, transparency and end-to-end tracking capabilities.

More than 110 leading transaction banks from Europe, Asia Pacific, Africa and the Americas have already signed up and more are expected to join. Today, an increasing number of cross-border payments are being sent using this new gpi standard, bringing immediate benefits to gpi banks and their corporate customers.

Now live, the first phase of SWIFT gpi focuses on business-to-business payments, helping corporates grow their international business, improve supplier relationships, and achieve greater treasury efficiencies. With SWIFT gpi, corporates get enhanced payments services from their banks, with following key features:

- Faster, same day use of funds
- Transparency of fees
- End-to-end payments tracking
- Remittance information transferred unaltered

The second phase of SWIFT gpi will enable the digital transformation of cross-border payments, by allowing banks to:

- Stop a payment immediately, no matter where it is in the correspondent banking chain
- Transfer rich payment data along with the payment, including additional line item details necessary for compliance checks, in an effort to enhance the reconciliation of a payment with multiple invoices
- Use an international payment assistant, to further increase the straight-through-processing rate of cross-border payments, at origination

In parallel, SWIFT gpi is already exploring the potential use of new technologies such as distributed ledger technology in the cross-border payments process. SWIFT gpi is continually evolving through innovation, as evident with the development of end-to-end payments tracking and the launch of an industry challenge for fintechs to develop overlay services on top of the gpi platform.

110+ banks are participating
75% SWIFT cross-border payments
200+ countries and territories

Key features
The Tracker
End-to-end payments tracking

In today’s world, customers expect greater transparency. When they send a payment, they want to know the status and when the money has been credited in the beneficiary’s account. Until now, this has not been the case in cross-border payments as each bank has only been able to guarantee and share information on its own leg of the payment.

Now SWIFT gpi enables banks to provide end-to-end payments tracking. SWIFT has developed a Tracker database ‘in the cloud.’ This is securely hosted at SWIFT and gives end-to-end visibility on the status of a payment transaction from the moment it is sent until it is confirmed.

SWIFT gpi banks are able to log in to the Tracker to instantly check the status of the payments they have sent, those in progress and those that have been received. They can even improve their liquidity management by having visibility on initiated payments already on their way.

The Tracker can be updated by FIN message or via API. It can be accessed via a graphical user interface (GUI) and also via API calls to allow the service to be embedded in other back-office systems and in customer-facing front-office portals.

The Observer
A global view of banks’ adherence to the SLA

In order to enhance cross-border payments, SWIFT has created a new service level agreement (SLA) rulebook. This provides the opportunity for enhanced business practices and smart collaboration between participating banks.

To monitor adherence to this new SLA for all members, SWIFT has created a central service called the Observer. All gpi banks will have a global view of other gpi banks’ adherence to the gpi SLAs. This will enable gpi banks to quickly pinpoint potential areas for improvement and work collaboratively towards a better implementation of the SLA.

The Directory
A complete list of all gpi members

Every member bank is automatically listed in the gpi Directory. The Directory includes information about which banks can send and receive gpi payments by business identifier code (BIC), in which currencies can payments be made, through which channels; payment cutoff times; and whether or not a bank acts as an intermediary for gpi payments.

This Directory benefits all banks involved by enabling comprehensive end-to-end path finding for gpi payments. It is available in a wide variety of formats and accessible via automated delivery channels.

Transparent, real-time payments transactions are becoming the new normal. Banks want to provide the best payment experience possible to their customers, and customers are demanding greater speed and insight into their transactions. SWIFT is playing an active role in leading the industry towards a faster and more transparent payments infrastructure.
In response to business and consumer demand for faster payments, our global instant payments strategy focuses on developing innovative technology that enables real-time payments to be made over the SWIFT network.

SWIFT has unparalleled experience in working with our banking community to build strategic solutions that can be replicated across multiple markets.

We have already made rapid progress in instant payments. In December 2014, we were awarded the contract to design, build and operate the infrastructure to facilitate Australia’s New Payments Platform (NPP).

In the U.S. we will provide institutions with a gateway to The Clearing House’s real-time payments (RTP) platform. As instant payments become more ubiquitous in the U.S., our Alliance Messaging Hub (AMH) platform will provide an interface to manage the requirements of sending and receiving domestic instant payment transactions on behalf of customers.

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**Pan-European instant payments**

We are now developing an innovative instant payments messaging solution for the European market. Pan-European instant payments present a unique challenge, covering several jurisdictions, multiple clearing and settlement mechanisms (CSMs) and different domestic market practices. We are addressing these challenges by building on our Australian experience to offer specific innovations for the European market.

We will offer connectivity to any domestic CSM that opts to offer SWIFT connectivity to its participants, including Eurosystem’s Instant Payments Platform (TIPS) and the Eurosystem Single Market Infrastructure Gateway (ESMIG) for T2 and T2S.

Once delivered for Europe, we intend to adapt the same solution to support instant payments initiatives elsewhere in the world.

SWIFT is connected to more than 11,000 banking and securities organisations, market infrastructures and corporate customers in over 200 countries and territories. This puts us in a unique position to deliver the infrastructure necessary to facilitate pan-European instant payments efficiently and with minimum integration burden for institutions already connected to the SWIFT network.

The transition to instant payments for SWIFT customers will be simple and seamless, enabling them to capitalise on their existing investments in SWIFT technologies and messaging services.

Banks and other institutions in Europe will have to connect to other domestic instant payments systems in addition to the ECB’s TIPS and RTP platforms for cross-border transactions. This will require a complete and costly overhaul of existing systems and processes and place a huge burden on IT teams.

By re-using their existing investment in SWIFT, our customers will have a single user interface that connects with multiple instant payments systems in Europe, for both domestic and cross-border payments. For new customers, SWIFT will offer complete on-boarding services to reduce risk and manage costs.

In addition, this solution is intended to provide customers with access to the forthcoming consolidated ESMIG system for T2, T2S and TIPS through the same interface. Migration to this single European gateway is one of the most crucial tasks facing European banks and other financial institutions in the coming years, and by implementing our system now they will save themselves significant time and money later.

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**Straightforward integration with Alliance Messaging Hub (AMH)**

When transitioning to faster payments settlement, around 90% of the cost banks incur is related to integration of new systems and processes. Banks need to prepare their businesses to run 24 hours a day, seven days a week in order to process payments in real-time. They face the additional cost of building new acquisition channels for consumers and integrating these with legacy payment streams. They must also ensure compliance with the necessary regulations such as sanctions screening and anti-money laundering (AML).

This requires a financial messaging platform that sits between the bank and the various domestic and cross-border payments systems. Developing this type of technology internally requires huge resources and budgets, and is prone to significant risk.

While our instant payments gateway can be used stand-alone alongside these types of proprietary systems, it can also be integrated with the Alliance Messaging Hub (AMH), which enables automated processing of financial message flows and seamless integration with back office systems.

AMH is already widely used and trusted by financial institutions across the world to integrate and manage extensive and diverse message flows. It was designed to help our customers operate as effectively as possible under growing market and operational pressures.

It already offers straightforward connectivity to SWIFT and local clearing networks, and so instant payments is a natural extension for the product. It also provides off-the-shelf adapters for flexible back office integration.

AMH can be fully integrated with compliance systems, ensuring optimum regulatory compliance with sanctions screening and AML requirements.
Across financial services, blockchain and distributed ledger technologies (DLTs) are developing at a pace. The speculation surrounding the technology is fast being replaced by concrete research and development outputs in the form of proofs of concept, simulations and prototypes.

At SWIFT we have long been analysing and testing the potential application of blockchain technology in the financial industry. We conducted an in-depth assessment of DLTs which determined that DLTs were not yet mature enough to fulfill the requirements of the financial community. While this conclusion still holds true today, we have seen a number of advancements in the past year in the critical requirements that need to be addressed for the technology to achieve industry-wide adoption.

For instance, blockchain solutions supporting data confidentiality with a strong identification framework have emerged. Data controls are mainly achieved through selective distribution whereby the information is only disclosed and physically stored on the nodes of the parties of a particular transaction. Identification of parties has now evolved from the pseudo-anonymity of Bitcoin to models where identity of the participants are verified by a neutral trusted third-party using, for example, a certification authority.

Distributed ledger technology

Distributed Ledger Technology holds the potential to dramatically reduce the need for reconciliation in a shared ledger environment. BNY Mellon, a member of the gpi Vision Group and early adopter, is pleased to join SWIFT and other participating banks in exploring how DLT could streamline nostro account reconciliation in the cross-border payment process.

Christopher Mager
Head of Global Innovation for BNY Mellon Treasury Services.

The DLT based nostro reconciliation approach has the potential to change financial practice and exchange. Commerzbank is delighted to participate in this proof of concept to build standards and enhance the portfolio of SWIFT gpi. SWIFT has often proved in the past to be the right place for modernization ideas and the SWIFT gpi initiative underpins SWIFT’s role in this respect.

Ingrid Weißkopf
Head of FI Products and Advisory at Commerzbank AG, Frankfurt

We are very encouraged on the adoption rates and the payments traffic of the SWIFT gpi service, only six months after it went live. Standard Chartered has been involved in the gpi initiative as a pilot bank and a founding member in its vision group. The work on the DLT PoC will allow us to continue improving on the cross-border payments experience for our clients by making our internal processes around the critical step of nostro reconciliation, highly efficient.

Anurag Bajaj
Managing Director and Global Head of Banks, Transaction Banking at Standard Chartered Bank

“A nostro account is an account that a bank holds in a foreign currency at another bank that it uses to facilitate cross-border payments.”
However, regardless of the technology, delivering automation in a multi-party network environment requires business participants to define and agree the meaning and content of shared data, business processes, roles and responsibilities. This is the domain of business standards.

Lack of standardisation is currently a key factor inhibiting application of this technology on an industrial scale. Today’s distributed ledger landscape lacks standardisation at all levels – from technical protocols to ledger and transaction data formats, to smart contracts.

As a financial industry-owned cooperative active in the business standards space, SWIFT is taking a leading role in formulating and operationalising open business standards for DLT, building on our extensive experience and relationships with industry players, regulators and standards bodies.

Financial industry business standards enable the creation of robust, interoperable multi-party business processes by reducing the ambiguity of specifications and fostering efficient re-use of knowledge, skills and technology. We believe that these standards should be open, royalty-free and controlled by a single commercial entity, in order to ensure the level of trust and industry participation necessary for success. Similar to DLT and smart contracts, SWIFT is also exploring the use of standards for APIs.

Like messaging, APIs exchange structured data, but unlike messaging, there is currently no agreed approach to standardise this data at an industry level, and this brings the risk of data truncation or misinterpretation in complex business processes with many interactions.

SWIFT is working with key industry bodies to extend the ISO 20022 standard to cover API specifications in a way that will be convenient for API developers, but retain the benefit of consistent end-to-end data definitions that ensure the reliability of message based systems.

### Leveraging ISO 20022 in DLT

Published in 2004 and developed by SWIFT in collaboration with six standards bodies, the ISO 20022 open standard was designed to help financial markets participants more accurately and efficiently communicate with each other, regardless of network or any number of advances in technology. ISO standards carry immense credibility because of their well-established model for certification and accreditation.

Electronic messaging has been used for many decades to automate business processes in the financial industry. When the technology first emerged, deployment was typically local to a particular market or community, and a huge variety of local business standards was created. Recent global standards such as ISO 20022 seek ultimately to replace many of these local standards, to reduce over time the number of competing and overlapping standards with which the financial industry has to contend.

Existing standards such as ISO 20022 can play a crucial role in the development of DLT and smart contracts. While naturally, existing standards do not cover all aspects of this emerging technology, there is clear value in avoiding a ‘re-inventing the wheel’ scenario in terms of business definitions and in facilitating interoperability amongst DLT implementations and with existing financial industry infrastructure, including electronic messaging.

There are many messaging standards but the most modern in terms of architecture and broadest in terms of business coverage and adoption is ISO 20022. As the industry evolves DLT and smart contract-specific standards, ISO 20022 will provide a great foundation, in terms of both existing business content and approach.

### Achieving true innovation can be a challenge for businesses operating in a complex and highly regulated environment such as financial services. Genuine progress requires collaboration across the industry with key market players working together to develop and launch products and services that meet the real-world needs of the industry.

As a global member-owned cooperative, SWIFT holds a unique position in regards to its ability to engage with its customers to drive innovation.

For over 40 years we have pioneered collaboration in the financial services industry, bringing the financial community together to shape market practice, define standards and debate issues of mutual interest or concern. This community-led approach is central to our innovation strategy.

### SmartContract and RISE Technologies have completed their proof of value projects

The inaugural Innotribe Industry Challenge focused on the use of distributed ledger technologies in the securities industry. Attended by 28 representatives of SWIFT’s customers in securities markets, and five fintechs active in this space, the workshop aimed to accelerate innovation and collaboration at an industry level. The workshop was divided into two phases. In the first phase, a design thinking workshop was conducted by 28 representatives of SWIFT’s customers across the securities industry. At the heart of the discussion, Industry Challenges were co-created with a hand-picked group of startups and selected partners. Designed to place the voice of the customer at the heart of the discussion, Industry Challenges are built around a facilitated design thinking workshop where customers, startups, and relevant business units from SWIFT work together to address specific business problems. Following the workshop, we conduct ‘proof of value’ exercises driven by customer needs, involving both the startups and SWIFT.

Together with global innovation professionals, Innotribe at Sibos introduces the emerging innovation trends while exploring thought-provoking content to challenge perceptions.

Innotribe also investigates on a range of fintech-related topics, working with proven fintech enterprises, academics and top industry experts, and publishes research papers to stimulate debate and facilitate action within our community.

### Collaboration

### Innotribe

Benefitting from SWIFT’s central role within the financial industry, Innotribe seeks to reinforce the importance of collaboration when it comes to innovation, supporting all actors of the fintech sphere, including SWIFT, to move forward together.

Through global events and research initiatives, Innotribe brings together innovators and investors from leading financial institutions worldwide to identify, develop, and implement transformational innovations.

Since 2011, the Startup Challenge has connected the financial services industry with more than 650 fintech startups. While supporting community engagement, it has also enabled us to stay abreast of current innovation activity. All year-round, showcases in emerging markets feature fast-paced company pitches and social networking events.

Tapping into today’s flourishing fintech environment, Innotribe has evolved to a more strategic level. Through a new business-specific initiative, the ‘Industry Challenges’, we will deepen engagement with a hand-picked group of startups and selected partners.

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Connectivity and integration

Different organisations have different connectivity needs when it comes to the infrastructure they rely on for financial transactions.

Small to medium-sized banks, corporates and investment managers need a cost-effective and secure solution which allows them to connect to multiple partners with a light footprint and minimal operational burden, enabling them to focus on their business strategies.

Medium-sized to large banks and other financial institutions, meanwhile, require the technology that allows them to connect single or multiple destinations to SWIFT while automating system management tasks as fully as possible. As well as maximum resiliency and availability, they need a connection which can exchange high volumes of messages and files and a high level of straight through processing.

We offer a range of innovative connectivity solutions to suit different institutions’ needs and budgets, delivering a seamless and secure connection to the global financial markets.

Cloud connectivity

SWIFT’s cloud solutions combine the benefits of SWIFT with the features typical of cloud solutions – a lighter footprint and faster time to market. Offered to banks, corporates and investment managers, our cloud solutions can be tailored to meet their specific requirements and budgets, allowing them to focus on their business strategies, whilst reducing operational burden without compromising on security.

SWIFT’s cloud offering ranges from a direct access to a standardised, robust and secure interface managed and operated by SWIFT (Alliance Lite2), to a hybrid solution that provides more flexibility at interface level while outsourcing technical management of connectivity components to SWIFT (Alliance Remote Gateway).

Other options include full integration with Business Applications from certified application providers (Alliance Lite2 for Business Applications). SWIFT’s cloud offering also provides solutions that are only activated and used in case of major disaster or cyber-attack (Alliance Lifeline).

Alliance Lite2 at a glance

<table>
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<th>Your challenges:</th>
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<td>- Maintain single connection to the financial industry</td>
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<tr>
<td>- Limit ownership, maintenance and IT costs</td>
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<td>- Reduce on-boarding time with your financial partners</td>
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Why SWIFT?

- Direct connection to SWIFT
- Lighter footprint
- Rapid set-up
- Managed and operated by SWIFT
- Manual and automated flows
- Easy to implement security controls

AMH

Alliance Messaging Hub (AMH) enables the processing of financial message flows and integration with back office systems. Institutions that process a large volume of messages every day require a messaging solution that offers high levels of availability, high performance, flexible flows and a modular structure.

Designed to provide all of these features, AMH is a financial messaging platform for financial institutions and market infrastructures. Scalable and customisable, AMH supports a variety of business activities, with message processing allowing users to connect to multiple networks around the world.

The platform offers seamless routing between different messaging services and has powerful integration capabilities. Using AMH, technical business experts can create their own business flows, transformations, report definitions and intricate business routing.

AMH is also built to perform under heavy message load, processing thousands of messages in a second. Features include an automatic failover mechanism, seamless recovery, automatic reconnection mechanism and auto retry functions. Easily extendable, the platform can provide additional services and protocols as a business develops.

AMH at a glance

- Clear and intuitive business user interface
- Full support for SWIFT and local clearing networks
- Sophisticated data management capabilities
- Seamless routing between different messaging services
- Off-the-shelf adapters for flexible back-office integration
- Straightforward to configure business flows, define formats and make changes
- Open and componentised architecture
- Non-disruptive solution, enabling seamless integration in your environment
From large global communities to smaller niche players, training content needs to be disseminated across the globe in a universal, effective, efficient and flexible way, and with minimal disruption to day-to-day business activities. Technological advancements and budget constraints have made eLearning an attractive choice, especially with regards to the new generation that enters the workforce and wants a flexible and personalised experience. With SWIFTSmart, SWIFT offers a cost effective, convenient, practical, and efficient training solution.

SWIFTSmart provides more than 200 courses in multiple languages, helping customers to make the most of SWIFT standards, products and services and enabling our community to learn more about industry topics. The courses available range from SWIFT message standards for payments, trade, treasury and securities to SWIFT software and connectivity.

While the course catalogue is constantly being broadened with new online courses on various key industry topics, SWIFT is also improving the user experience on the platform through the addition of social collaboration and interactive features, to ensure our community is not only getting the most qualitative and accurate learning materials, but is also benefiting from the latest trends in eLearning.

The SWIFTSmart platform is available to all employees of a SWIFT-connected organisation and requires no software installation. Users simply need to log in through their swift.com account to get started.

Future enhancements
We are continuously working on new courses. The following topics will be made available in 2018:

- Global payments innovation (gpi) business and technical requirements
- Securities settlement and reconciliation with ISO 20022
- Corporate Actions with ISO 20022
- Distributed Ledger Technology (DLT)
- SWIFTNet 7.2
- Managing Alliance Access
  Routing, restore, archive, backup
- Alliance WebPlatform introduction, configuration and monitoring
- Alliance Lite2 and AutoClient introduction and operation
- Interface troubleshooting guidelines

Services

As we continue to innovate and develop new products, our services enable customers to use SWIFT more effectively, helping build in-house expertise or take advantage of our insights for advice, planning and implementation.
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, standards for communicating and we offer products and services to facilitate access and integration; identification, analysis and financial crime 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, enabling them to communicate securely and exchange standardised financial messages in a reliable way.

As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies.

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

For more information, visit www.swift.com or follow us on Twitter: @swiftcommunity and LinkedIn: SWIFT