



SWIFT gpi

How payment market
infrastructures can
support gpi payments



SWIFT gpi – an introduction	3
The role of payment market infrastructures in gpi payments	4
Sending a payment over a local payment market infrastructure using SWIFT	6
Developing local gpi market practice for other payment market infrastructure communities	
Introduction	7
Recommended steps	8
Detailed overview of required gpi fields	9
Mapping required gpi fields to your local format	10
Defining roles and responsibilities of PMIs and their participants	11

Delivering the future of cross-border payments, today

SWIFT global payments innovation (gpi) brings together the world's leading transaction banks to significantly improve the customer experience in cross-border payments by increasing the speed, transparency and end-to-end tracking of cross-border payments.

SWIFT gpi enables payments to be tracked end-to-end in real time, offers transparency on deducts and provides a credit confirmation as soon as the beneficiary receives a payment – all via the gpi Tracker.

Each day, over USD 100 billion of cross-border payments are sent over SWIFT's secure and resilient global messaging network, using gpi, bringing immediate benefits to gpi banks and their corporate customers.

For more information about the service, please visit www.swift.com/gpi or contact us on weareswift@swift.com.

The standards information in this guide reflects SR 2018 specifications and may need to be updated following SR 2019 voting.

The role of payment market infrastructures in gpi payments

SWIFT gpi

Payment market infrastructures (PMIs) have a critical role to play in facilitating the end-to-end tracking of cross-border payments. As soon as an international payment reaches a domestic or regional market, PMIs typically come in the picture for local clearing and settlement.

Since messages flagged as gpi carry additional information, PMIs need a standardised market practice with their community to pass through the gpi data when gpi payments are exchanged through local payments systems.

The clearing systems of the most widely used currencies - AUD, CAD, CHF, CNY, EUR, GBP, JPY, USD etc. – are already gpi-enabled because they use the SWIFT FIN Copy service or have established a local market practice, in collaboration with SWIFT.

The following pages provide information on how other communities can initiate a process to define a local market practice for gpi payments.

Benefits for Market Infrastructures

- Facilitate the seamless transmission of gpi payments between the cross-border and domestic markets
- Lower the barrier of entry for members to access an improved cross-border payments experience
- Leverage the SWIFT gpi service for future innovations

Benefits for gpi members

- Ensures smooth clearing of gpi payments between gpi member banks
- Extend the gpi benefits up until the local beneficiary bank
- Strengthens the value proposition for end-customers as gpi payments can be sent through multiple channels

“

By using a market practice to include a gpi tracking reference in the Fedwire Funds Service messages, our participants, that are also SWIFT gpi members, can extend the benefits of SWIFT gpi to funds transfers that are made through the Fedwire Funds Service.

Nick Stanescu

Senior Vice President and Head of Payments Product Management for the Fedwire Funds Service and the National Settlement Service, Federal Reserve Bank of New York

“

CIPS is pleased to be part of the global SWIFTgpi ecosystem. We have published the gpi China market practices in CIPS User Manual since January 2017. With this, the global RMB gpi payment is able to enjoy the end-to-end, non-broken payment experiences, which in turn increases the global acceptance of RMB as a major payment currency.

Zhang Xin

General Manager, China International Payment Service Corp.

“

To support greater speed and transparency in cross-border payments, the Japanese Bankers Association is pleased to announce the SWIFT gpi mapping recommendation will be used in payment instructions over FXYCS. As a result of this agreement, direct members who wish to include gpi information can apply this recommendation in their funds transfer business over FXYCS as from November 2018.

Ayako Suwa

Head of the Foreign Exchange Yen Clearing System Administration Office, Operations & Clearing System Administration Department, Japanese Bankers Association

“

As one of the first countries with an RTGS system using ISO 20022, Switzerland is proud to support SWIFT gpi. This service supports our participating banks to even track ISO 20022 pacs.008 and pacs.009 messages end to end, in real time.

Boris Brunner

Head Partner Management, Business Unit Banking Services, SIX

Sending a gpi message over a Payment Market Infrastructure using SWIFT

SWIFT gpi

Payment market infrastructures that use SWIFT messaging services and standards support the SWIFT gpi experience by default through the existing SWIFT Standards Release process.

gpi payments are identified by two dedicated fields in the User Header (Block 3) of the FIN MT exchanged in the framework of SWIFT gpi:

- **Field 121:** contains the Unique End-to-End Transaction Reference (UETR)
- **Field 111:** contains the gpi Service Type Identifier

The presence of these two fields in the FIN MT:

- Allows receiving gpi banks to know that the transaction has to be processed according to the gpi rulebook
- Allows the gpi Tracker to automatically update the transaction status in real time
- Allows gpi banks to consult and update the status of a specific transaction in the gpi Tracker

Future gpi standards-related changes will be part of the normal SWIFT Standards Release process.

SWIFT, through its MT Standards Release processes, makes sure that the exchange of gpi transactions is a seamless process for FIN Copy users.

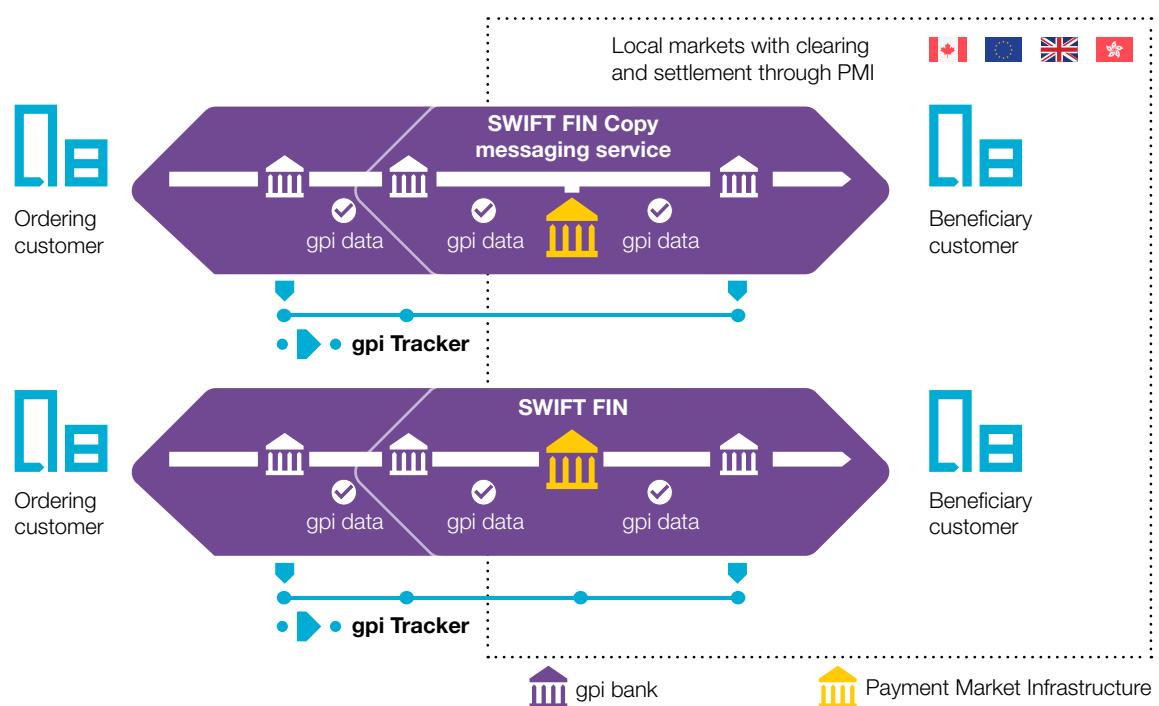
Payment market infrastructures using regular SWIFT FIN (in a V-shape topology):

- are able to receive payments with the gpi fields since Standards Release 2017;
- have to pass on the same UETR they receive in field 121 from their sending participant to the receiving participant as part of the Standards Release 2018 enhancements. By default the MI is not able to relay the gpi service level in field 111;
- **can become fully gpi-compatible by relaying the gpi Service Type Identifier as well.**

Participating to this optional solution enables the MI to relay an identical message and allows the receiving participant to identify the transaction as gpi, which would avoid the SLA to be broken.

Contact your account manager or weareswift@swift.com to register.

Cross-border leg on FIN, local leg cleared and settled through PMI using SWIFT FIN Copy.



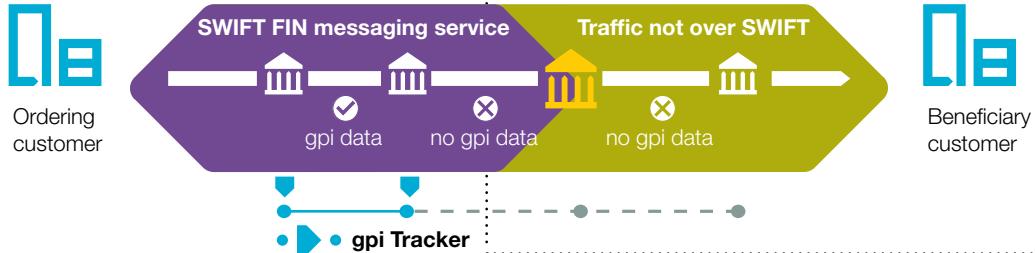
Developing local gpi market practices for other Payment Market Infrastructure communities

SWIFT gpi

A Introduction

Community without local gpi market practice

Cross-border leg on SWIFT FIN, local leg cleared and settled through local PMI - without local market practice for gpi



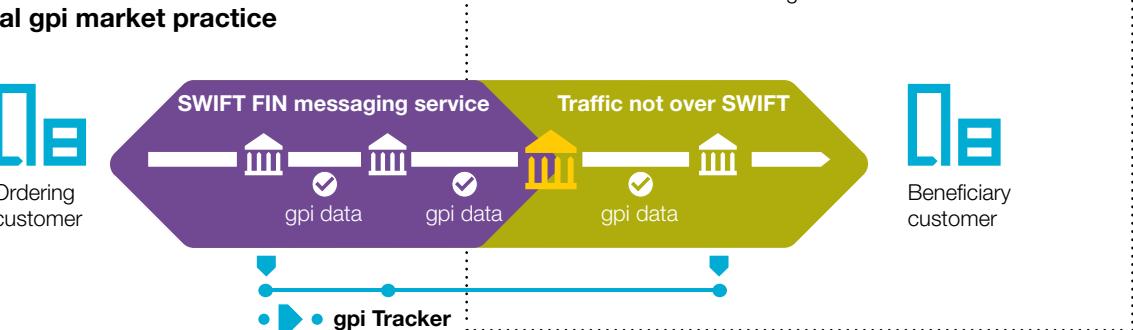
When a gpi agent sends a transaction over a local PMI that doesn't support gpi, the gpi Tracker will indicate that the transaction was sent to a non-gpi bank or un-supported PMI. In that case, the gpi agent will not forward gpi data towards the next party in the transaction chain.

As of that moment the transaction will be processed as **a non-gpi transaction**, which means that the customer experience related to gpi (increased speed, transparency and end-to-end tracking) will not be applicable to the transaction anymore.

Establishing a local gpi market practice for these PMI communities can address this issue and ensure continuity of the gpi service, including transaction tracking.

Community with local gpi market practice

Cross-border leg on SWIFT FIN, local leg cleared and settled through local PMI - supporting local market practice for gpi



If the local PMI agrees to support a market practice for the two gpi fields in its local data format, gpi agents can use the PMI to exchange gpi transactions. They will then be able to guarantee continuation of the gpi service level, including updates of the gpi Tracker.

If you are a PMI community not using SWIFT messaging services, you will find useful information on the next pages to start developing a local market practice for your community.

Note: A global market practice has been established by the High-Value Payments Systems (HVPS+) market practice group, to carry the gpi UETR and Service Type Identifier in ISO 20022 transactions exchanged between gpi Customers in the context of High-Value Payments Systems that will adopt ISO 20022. Details can be found in the 'Mapping overview' of this leaflet.

B Recommended steps to develop a local gpi market practice

These recommended steps reflect how some of the major PMI (e.g. Fedwire Funds Service, CHIPS and CIPS), together with their core gpi participants, established such a local market practice.

1. Scope / Validate

- Gap analysis of gpi requirements vs local formats
- Identify local market practice options, assess impacts
- PMI and banks to agree on preferred option to identify gpi transactions
- If required, initiate local change request procedure(s)

2. Publish / Inform

- Publish local market practice specification to community and SWIFT
- Promote new local market practice to other relevant gpi banks
- PMI to add local market practice in their documentation (if possible)

3. Plan / Implement

- Agree on timeline for implementation and testing by PMI
- Agree on timeline for implementation and testing by gpi banks
- Evaluate existing local market practice as gpi services evolve

Tip

The next set of pages provide a detailed overview of gpi data requirements, mapping tables and an example of roles and responsibilities that need to be agreed on as part of the first step in the process.

C Detailed overview of gpi data requirements

In order to flag a message as gpi, two new data fields have been introduced in the following messages:

- MT 103 Single Customer Credit Transfer
- MT 202 COV General Financial Institution Transfer/MT 205 COV Financial Institution Transfer Execution*
- MT 202 General Financial Institution Transfer/MT 205 Financial Institution Transfer Execution*

1. gpi Service Type Identifier

In order to flag a transaction as gpi, the gpi instructing bank will include the service type identifier in field 111 of the User Header. The service type identifier consists of exactly 3 numerical characters. The value for the gpi Customer Credit Transfer service is '001'. Additional numbers may be defined by SWIFT in the future for other gpi payment services.

The use of the Service Type Identifier is optional and will only be populated by gpi participants.

Please consider the following list of use cases to be addressed when developing the new market practice.

- a) Customer Payment with UETR
- b) Customer Payment with UETR and Service Type Identifier
- c) Cover payment with UETR
- d) Cover payment with UETR and Service Type Identifier
- e) Institutional payment with UETR
- f) Institutional payment with UETR and Service Type Identifier

2. Unique End-to-End Transaction Reference (UETR)

An end-to-end transaction typically involves multiple MT messages, exchanged between different parties involved in the end-to-end payments chain. In order to uniquely identify and track the lifecycle of the transaction to which these different messages relate, the SWIFT gpi service has introduced the usage of a unique gpi end-to-end transaction reference (UETR), a SWIFT tracking number.

The UETR used in SWIFT gpi messages is based on a well-known and mature mechanism for generating such an identifier: the Universally Unique Identifier (UUID), sometimes also known as Globally Unique Identifier (GUID), compliant with IETF standard RFC 4122 using version 4 of the generation algorithm, in lower case.

The format consists of 36lx composed of 32 hexadecimal characters, displayed in 5 groups separated by hyphens:
 xxxxxxxx-xxxx-4xxx-yxxx-xxxxxxxxxx
 x = any hexadecimal character (lower case only); y is one of 8, 9, a or b.
 The UUID is designed to be globally unique, without risk of repetition over time.

The unique gpi end-to-end transaction reference (UETR) is generated by the gpi instructing bank (the first gpi bank in the transaction chain) when initiating a transaction and is transferred by any gpi institution in the same transaction chain.

As of Standards Release 2018, all FIN payments (MTs 103 / STP / REMIT, 202/205 and 202/ 205 COV) will contain a UETR in field 121 in the User Header.

UETR example:

{121:eb6305c9-1f7f-49de-aed0-16487c27b42d}

* as of November 2018

D Mapping required gpi fields to your local format

The mapping process typically follows the following sequence:

- Identify your local message equivalents for MT 103, MT 202 COV/MT 205 COV, MT 202/MT 205
- Identify a local market practice that can be used across your local messages to cater for the new data fields (UETR and service type identifier)
- Verify if all other data elements of the SWIFT messages are also present in your local format

a. Mapping a SWIFT MT to your local message equivalents		
SWIFT Message	Global HVPS+ market practice for ISO 20022 (published in MyStandards)	Your local equivalent message
MT 103 Customer Credit Transfer	pacs.008 FI to FI Customer Credit Transfer	
MT 202 COV General Financial Institution Transfer MT 205 COV Financial Institution Transfer Execution	pacs.009 FI to FI Financial Institution Credit Transfer	
MT 202 General Financial Institution Transfer/ MT 205 Financial Institution Transfer Execution	pacs.009 FI to FI Financial Institution Credit Transfer	

b. Mapping new gpi data fields to new local best practice for your data fields		
SWIFT Message	Global HVPS+ market practice for ISO 20022 (published in MyStandards)	Your local equivalent message
MT 103, MT 202 COV/MT 205 COV, MT 202/MT 205 Header - Tag 111 - 3In Service Type identifier	pacs.008/pacs.009: Credit Transfer Transaction Information/Service Level/ External Code	
MT 103, MT 202 COV/MT 205 COV, MT 202/MT 205 Header - Tag 121 - 36Ix UETR	pacs.008/pacs.009: Credit Transfer Transaction Information/Transaction ID	

c. Checking other data elements

The UETR and service type identifier are the new data fields that have been introduced to flag a transaction as gpi. Additionally, the gpi service reinforces a number of usage guidelines and best practices related to data fields already present in the SWIFT messages. This applies specifically to the fields of the MT 103. When defining local market practice, it should be checked that these fields are also present in the local data format.

Element	gpi validation	Check presence of similar data element in your local format
Details of charges [mandatory element]	MT103 :71A: OUR/BEN/SHA options are supported and must be passed on unchanged throughout the end-to-end chain.	Yes / No, action required
Sender's Charges	MT103 :71F: Sender's charges must be included as per MT 103 network validated rules	Yes / No, action required
Receiver's Charges	MT103 :71G: If receiver's charges are known, they must be included in the MT 103	Yes / No, action required
Currency/ Instructed Amount	MT103 :33B: These elements may need to be present depending on the business scenario.	Yes / No, action required
Exchange Rate	MT103 :36:	Yes / No, action required
Remittance Information	MT103 :70: (up to 140x) must be carried through unaltered	Yes / No, action required

Defining roles and responsibilities of Payment Market Infrastructures and their participants

The overview below reflects a number of roles and responsibilities that have been used by PMI that have already defined their mapping requirements for gpi payments. **They should be assessed and fine-tuned based on local business context.**

Payment Market Infrastructures

1. The PMI may or may not (depending on PMI capabilities) validate the presence, format or content of the gpi elements present in the payment, but it has to pass on the gpi elements and their content to the receiving bank.
2. The PMI will not check whether the sending and receiving banks are subscribers to the SWIFT gpi service.
3. The PMI should publish the present best practice for gpi transactions as part of its own service documentation and inform SWIFT about this best practice.

Sending gpi banks

1. If the payment is a gpi transaction, the sender should follow the agreed best practice to flag the payment as a gpi transaction to the receiving gpi bank.
2. The sending gpi bank is responsible for checking that the receiving bank is a gpi bank.
3. The sending gpi bank is responsible for updating the gpi Tracker with the latest status.

Sending non-gpi banks

1. As per the guidelines for “Extended Tracking”, non-gpi banks can pass on the UETR. This is not mandatory.
2. A non-gpi agent should not pass on the gpi Service Type Identifier.

Receiving gpi banks

1. The receiving gpi bank is responsible for processing the payment as a gpi transaction.
2. The receiving gpi bank is responsible for updating the gpi Tracker with the latest status.

Receiving non-gpi banks

1. If a non-gpi agent receives the Service Level with Code element containing gpi’s service type identifier, it has the discretion of passing on the UETR or not.
2. The pass-on of the gpi data is not mandatory for the receiving agent.

If you have any questions, or have developed your own local market practice for gpi, please contact us at: weareswift@swift.com



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](https://twitter.com/swiftcommunity) and LinkedIn: [SWIFT](https://www.linkedin.com/company/swift/)

About SWIFT global payment innovation (gpi)

The SWIFT global payments innovation (SWIFT gpi) is the largest change in cross-border payments over the last 30 years and is the new standard. SWIFT gpi dramatically improves the customer experience in cross-border payments by increasing their speed, transparency and end-to-end tracking. Hundreds of thousands of cross-border payments are today being sent using the new gpi standard, and payments are made quickly, typically within minutes, even seconds.

SWIFT gpi allows corporates to receive an enhanced payments service, with the following key features:

- Faster, same day use of funds within the time zone of the receiving gpi member
- Transparency of fees
- End-to-end payments tracking
- Remittance information transferred unaltered

As an initiative, SWIFT gpi engages the global banking industry and fintech communities to innovate in the area of cross-border payments while reducing their back-office costs.

Since its launch in January 2017, gpi has dramatically improved the cross-border payments experience for corporates in over 220 country corridors. Key features of the gpi service include enhanced business rules and a secure tracking database in the cloud accessible via APIs. Thanks to SWIFT gpi, corporates can grow their international business, improve supplier relationships, and achieve greater treasury efficiencies. Overall, nearly 50% of SWIFT gpi payments are credited to end beneficiaries within 30 minutes, and almost 100% of payments within 24 hours. Those that take longer typically involve more complex foreign exchange conversions, compliance checks or regulatory authorisations.

In addition to over 270 financial institutions that have adopted gpi, more than 55 payment market infrastructures are already exchanging gpi payments, enabling domestic exchange and tracking. Payment market infrastructures have a critical role to play in facilitating the end-to-end tracking of cross-border payments because as soon as international payments hit the destination country, they are typically cleared through local payment infrastructures.

For more information about SWIFT gpi, please contact us on weareswift@swift.com.