



## **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.

Tens of thousands of cross-border payments are today being 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](http://www.swift.com/gpi) or contact us on [swiftforbanks@swift.com](mailto:swiftforbanks@swift.com).

## 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, 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

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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

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CIPS is pleased to be part of the global SWIFTgpi ecosystem. We have published the gpi China market practices in CIPS User Manual in Jan 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.

# 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.

On SWIFT FIN Copy, 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:

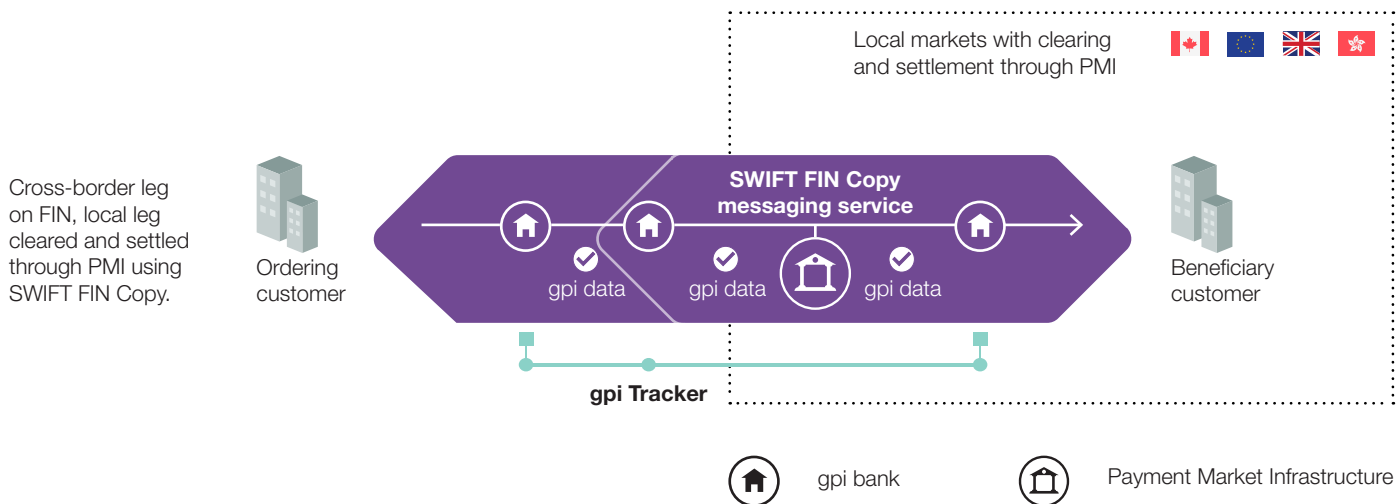
- **Field 121:** contains the Unique End-to-End Transaction Reference (UETR)
- **Field 111:** contains the gpi Service Type Identifier

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.

Payment market infrastructures using regular SWIFT FIN (instead of SWIFT FIN Copy) will be able to receive payments with the gpi fields as of Standards Release 2017 and cannot yet pass on the gpi fields to the instructed agent. Passing on the gpi fields may become possible as part of evolving standards release enhancements or alternative future solutions.



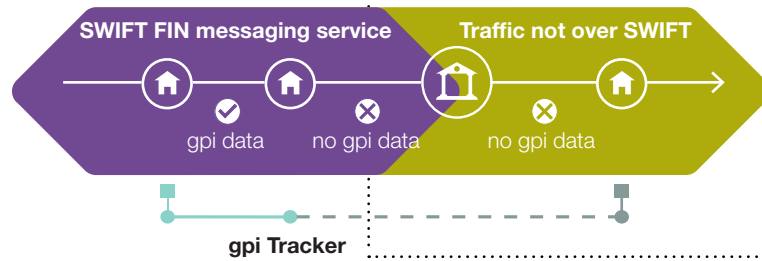
# Developing local gpi market practices for other Payment Market Infrastructure communities

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



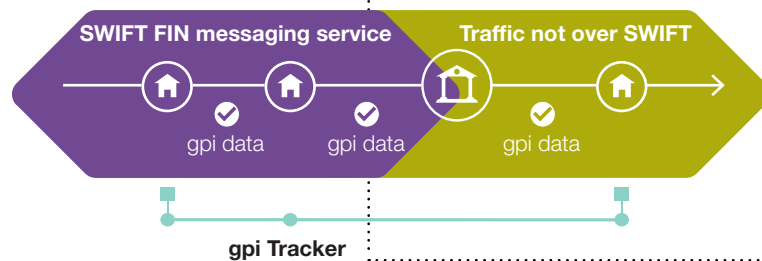
When a gpi agent sends a transaction over a local PMI that doesn't support gpi, the gpi Tracker will indicate that the transaction was sent to a non-gpi bank or un-supported PMI. In that case, the gpi agent will not forward gpi data towards the next party in the transaction chain.

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 continuity 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.



## 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 number itself is not validated by SWIFT. The Service Type Identifier must always be accompanied by the UETR (field 121) in the User Header.

### 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-xxxxxxxxxxxx

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.

#### UETR example:




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

\* as of SR 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 should be passed on unchanged throughout the end-to-end chain.	Yes / No, action required
Sender's Charges	MT103 :71F: Sender's charges should 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 should be included in the MT 103	Yes / No, action required
Currency/ Instructed Amount	MT103 :33B:	Yes / No, action required
Exchange Rate	MT103 :36: These elements may need to be present depending on the business scenario.	Yes / No, action required
Remittance Information	MT103 :70: (up to 140x) should 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.

### 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

In case the sender inadvertently includes the gpi data elements in the local payment instruction, the receiving non-gpi bank may ignore the gpi-related information.



**SWIFT**gpi

## About SWIFT

SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services. As a global member-owned cooperative and the world's leading provider of secure financial messaging services, SWIFT enables more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories to communicate securely and exchange standardised financial messages in a reliable way. As their trusted provider, we facilitate global and local financial flows, relentlessly pursue operational excellence, and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies. We also bring the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest.

For more information, visit [www.swift.com](http://www.swift.com) or follow us on Twitter: @swiftcommunity and LinkedIn: SWIFT

## About SWIFT global payment innovation (gpi)

SWIFT global payments innovation (gpi) aims to dramatically improve customer experience in cross-border payments. SWIFT gpi services will operate on the basis of 'business rules' captured in multilateral service level agreements (SLAs) between participating banks. In its first phase, launched in February 2017, SWIFT gpi delivers a new standard in cross-border payments by increasing their speed, providing transparency over fees and enabling end-to-end tracking. The second phase will see the digital transformation of cross-border payments with additional services such as a rich payment data transfer, an instant stop and recall payment service and an international payment assistant. For its third phase SWIFT gpi is already exploring the potential use of new technologies, such as distributed ledger technology, in the cross-border payments process.

For more information about SWIFT gpi, please contact us on [swiftforbanks@swift.com](mailto:swiftforbanks@swift.com)

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