



Fusion Global PayPlus

Single Payments

Business Guide

Product Version 4.6.10
Catalog ID: GPP4.6-00-B18-02-201808

Copyright

© 2018 Finastra International Limited, or a member of the Finastra group of companies ("Finastra"). All Rights Reserved. Confidential - Limited Distribution to Authorized Persons Only, pursuant to the terms of the license agreement by which you were granted a license from Finastra for the applicable software or services and this documentation. Reproduction or redistribution, in whole or in part, of the content of this documentation or any other materials made available by Finastra is prohibited without the prior written consent of Finastra. The software and documentation are protected as unpublished work and constitute a trade secret of Finastra International Limited, or a member of the Finastra group of companies, Head Office: One Kingdom Street, Paddington, London W2 6BL, United Kingdom.

Disclaimer

Finastra does not guarantee that any information contained herein is and will remain accurate or that use of the information will ensure correct and faultless operation of the relevant software, services or equipment. This document contains information proprietary to Finastra. Finastra does not undertake mathematical research but only applies mathematical models recognized within the financial industry. Finastra does not guarantee the intrinsic theoretical validity of the calculation models used.

Finastra, its agents, and employees shall not be held liable to or through any user for any loss or damage whatsoever resulting from reliance on the information contained herein or related thereto. The information contained in this document and the general guidance of Finastra staff does not take the place of qualified compliance personnel or legal counsel within your institution.

FINASTRA CANNOT RENDER LEGAL, ACCOUNTING OR OTHER PROFESSIONAL SERVICES TO YOUR INSTITUTION. THE INFORMATION CONTAINED HEREIN IS GENERAL IN NATURE AND DOES NOT CONSTITUTE LEGAL ADVICE OR A LEGAL OPINION. CONSULT YOUR LEGAL COUNSEL FOR LEGAL ADVICE SPECIFIC TO YOUR SITUATION OR CIRCUMSTANCES OR TO ANSWER ANY LEGAL QUESTIONS.

This document is not intended as a substitute for formal education in the regulatory requirements of banking, banking operations, lending, lending operations, or other topics generally applicable to financial institutions. Your financial institution is solely responsible for configuring and using the software or services in a way that meets policies, practices, and laws applicable to your institution, including, without limitation: (1) options and selections made on prompts; (2) entries in the software program; (3) program setup; and (4) documents produced by the software or services. It is the obligation of the customer to ensure that responsible decisions are taken when using Finastra products. Information in this document is subject to change without notice and does not represent a commitment on the part of Finastra.

Feedback

Do you have comments about our guides and online help? Please address any comments and questions to your local Finastra representative.

Need more information? Read more about our products at <http://www.finastra.com> or contact your local Finastra office at <http://www.finastra.com/contact>.

Version Control

Date	Summary of Changes
	Document created
Sep 2017	Added SWIFT gpi support
Dec 2017	Added gpi Upload
Apr 2018	Added Customer Advising to the SWIFT GCCT (gpi Customer Credit Transfer) section
Aug 2018	Removed SWIFT GCCT (GPI Customer Credit Transfer) section
Aug 2018	Updated Outward Returns flow

Table of Contents

1	INTRODUCTION.....	5
1.1	Overview	5
1.2	Target Audience.....	5
1.3	Single Payments Business Ecosystem.....	5
1.4	Message Types.....	6
1.4.1	SWIFT Message Types.....	6
1.4.2	ISO Message Types	7
1.5	SWIFT GPI.....	7
2	GPP SINGLE PAYMENTS USE CASES	7
2.1	Outward Single Customer/Bank Payment	8
2.1.1	On-Us Transactions	8
2.1.2	Outward Single Payments via Clearing.....	10
2.1.3	Outward Cross Border Payment	12
2.2	Inward Single Customer/Bank Transfer.....	15
2.2.1	Inward Single Payments from Clearing.....	15
2.2.2	Inward Cross Border Payment Credit to Beneficiary.....	17
2.2.3	Onward Cross Border Payment Credit to Domestic Bank	19
2.2.4	Onward Cross Border Payment Credit to Overseas Bank	22
2.3	Outward Returns	25
2.3.1	Outward Returns for Clearing Payment	25
2.3.2	Outward Returns for Cross Border Payment	27
2.4	Inward Returns.....	27
2.4.1	Inward Return from Clearing	27
2.4.2	Inward Return from Cross Border	29
2.5	Inward Bulk Payments	30
2.6	Notice to Receive	30
3	GPP PROCESSING.....	30
3.1	Single Payments High Level Workflow	31
3.2	Payment Initiation.....	31
3.2.1	Payment Initiation Workflow	32
3.2.2	Map Payment Info	32
3.2.3	Base Currency Conversion	33
3.2.4	Message Filter	33
3.2.5	Source MOP STP Validation	33
3.2.6	Compliance Check	33
3.2.7	Repair and Enrichment.....	33
3.2.8	STP Validation.....	33
3.2.9	Party Details Enrichment.....	33
3.2.10	Message Duplicate Check.....	33
3.2.11	Office SLA	34
3.2.12	Incoming Reject Return	34
3.3	Debit Side Processing.....	34
3.3.1	Debit Side Workflow	35
3.3.2	Find First in DR Chain	35
3.3.3	Load Party	35

3.3.4	Account Derivation	35
3.3.5	Debit Authorization	36
3.3.6	Debit Side FX Conversion	36
3.3.7	Debit Party SLA	36
3.3.8	Payment Classification	36
3.3.9	Incoming Risk Management	37
3.3.10	Priority	37
3.4	Credit Side Processing	38
3.4.1	Credit Side Workflow	38
3.4.2	Find First in CR Chain	38
3.4.3	Load Party	39
3.4.4	Credit Party Chain Enrichment	39
3.4.5	Account Derivation	39
3.4.6	Credit Side FX Conversion	39
3.4.7	Credit Party SLA	39
3.5	MOP Selection	39
3.5.1	MOP Selection Workflow	40
3.5.2	MOP Selection	40
3.5.3	MOP Identifier	41
3.5.4	Message Type Selection	41
3.5.5	Value Date	41
3.5.6	Membership Check	41
3.5.7	RMA Check	41
3.5.8	MOP Validation	42
3.5.9	Building Correspondent Chain	42
3.6	Payment Execution	43
3.6.1	Payment Execution Workflow	43
3.6.2	Debit and Credit Transaction Codes	44
3.6.3	Sender Credit Line Replenishment	44
3.6.4	Prevent STP	44
3.6.5	Fees	44
3.6.6	Hold Until Time	45
3.6.7	Balance Inquiry	45
3.6.8	Stop Flag	45
3.6.9	Generate Direct/Cover	45
3.6.10	Compliance Check	45
3.6.11	Warehouse	45
3.6.12	External FX	45
3.7	Execution Individual	46
3.7.1	Execution Individual Workflow	46
3.7.2	Liquidity	46
3.7.3	Posting (Before Completion)	46
3.7.4	Format Out and Transmission	46
3.7.5	Match Response to Payment	46
3.8	Execution Bulking	46
3.8.1	Execution Bulking Workflow	47
3.8.2	Posting (Customer Leg)	47
3.8.3	Out Bulk Grouping ID Selection	47

3.8.4	Bulking Sending Time	47
3.8.5	Posting (Individual Credit)	48
3.8.6	Out File Generation	48
3.8.7	Posting (Consolidated Credit)	48
3.8.8	Response Handling	48
3.9	Outward Returns	48
3.9.1	Outward Returns Workflow	49
3.9.2	Generate Transaction.....	49
3.9.3	Transaction Generation Mapping Rules.....	49
3.9.4	Manual Flow	49
3.10	Inward Returns.....	49
3.11	Single Payments Posting	50
3.12	Advices.....	50
3.13	Acknowledgements & Confirmations	50
3.14	Daily Maintenance Activities	51
3.15	Industry Directory Uploads.....	51
3.16	Standing Order and Sweeps.....	51
4	MANUAL HANDLING.....	51
	APPENDIX A: GLOSSARY	52
	APPENDIX B: SINGLE PAYMENTS WORKFLOW LEGEND	52

1 Introduction

1.1 Overview

Global PAYplus (GPP) provides financial institutions (for example, Banks) the ability to receive, process, and send Single Payments (High Value).

GPP Single Payments supports the following use cases:

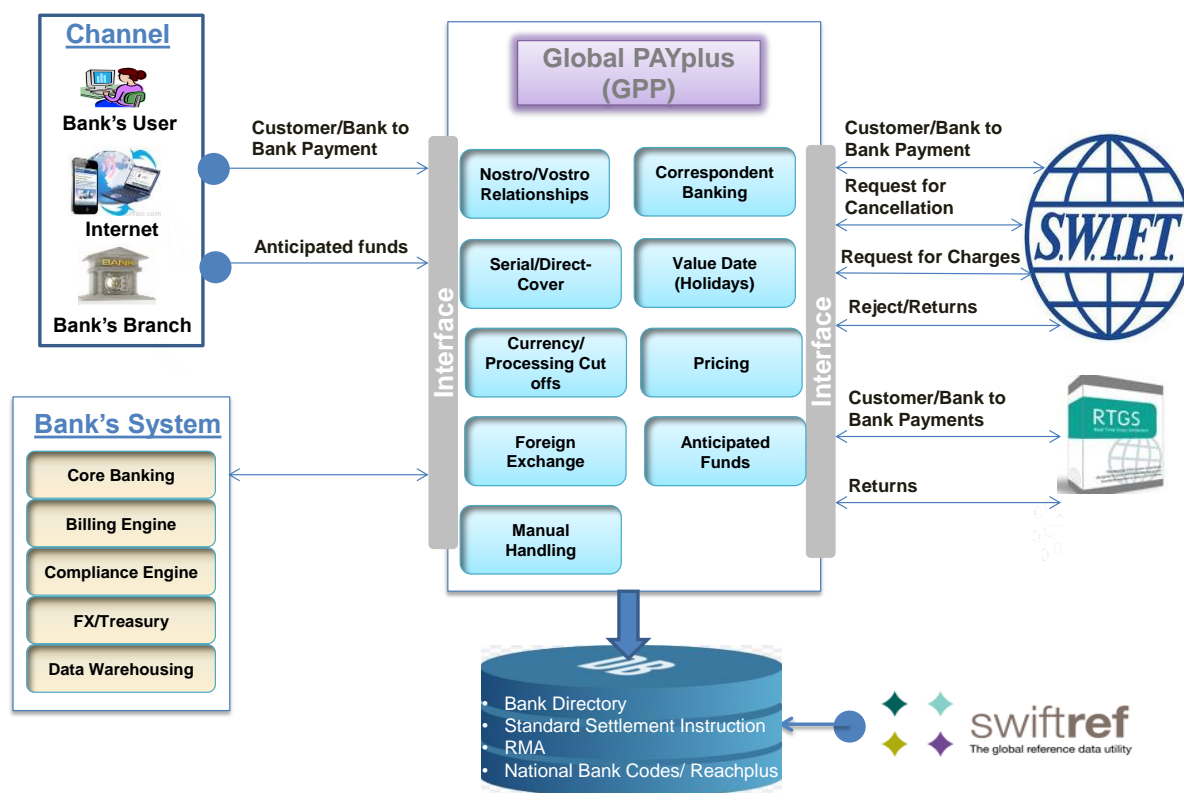
- Inward and Outward Cross border payments: Serial, and Direct/Cover
- Domestic Clearing: Direct/Indirect clearing member financial institutions
- On-Ups
- Cross flows: Single Payments to Mass Payments; Single Payments to Immediate Payments, and vice versa
- Multiple payments: Message Types MT101, and MT102

This document defines the flow processing and integration points for these use cases.

1.2 Target Audience

This document is intended for business analysts, product managers and other personnel who need to understand the business of GPP Single Payments.

1.3 Single Payments Business Ecosystem



1.4 Message Types

1.4.1 SWIFT Message Types

GPP Single Payments supports these SWIFT message types (MT).

Message Type	Description	Incoming	Outgoing
MT101	Supported	√	x
MT102	Supported	√	x
MT104	Supported	√	√
MT103	Single customer credit transfer	√	√
MT103+	Single customer credit transfer. The plus (+) refers to payment straight through processing (STP)	√	√
MT110	Generated as advice	√	√
MT190	Advice of charges, interest and other Adjustments	√	√
MT191	Request for charges	√	√
MT192	Request for cancellation	√	√
MT195	Queries	√	√
MT196	Answers	√	√
MT199	Free format message - message used by the financial institution to send or receive Information	√	√
MT200	Receive MT200 supported. send MT202	√	√
MT201	Multiple financial institution transfer for its own account	√	x
MT202COV	202 cover – General financial institution transfer	√	√
MT202	General financial institution transfer	√	√
MT203	Multiple general financial institution transfer	√	x
MT205	Financial institution transfer execution	√	√
MT210	Notice to receive	√	√
MT290	Advice of charges, interest and other adjustments	√	√
MT291	Request for charges	√	√
MT292	Request for cancellation on bank to bank payments	√	√
MT295	Queries	√	√
MT296	Answers	√	√

Message Type	Description	Incoming	Outgoing
MT299	Free Format Message - message used by financial institution to send or receive Information	√	√
MT900	Debit confirmation	√	√
MT910	Credit confirmation	√	√
MT940	Customer statement message	√	x
MT950	Statement message	√	x
MT999	Only generated from 9nn messages	√	√

1.4.2 ISO Message Types

For ISO message types supported by GPP, see GPP Business Guide Message Types.

For ISO message types supported in Single Payments flow per clearing, see GPP Business Guide Clearing Processing.

1.5 SWIFT GPI

SWIFT GPI focuses on business-to-business payments, helping corporates grow their international business, improve supplier relationships, and achieve greater treasury efficiencies.

SWIFT GPI improves the speed of transactions and the overall customer experience by creating predictable settlement times and clear statuses, through additional information on remittances and transparency around the FX rates and fees applied throughout the payment cycle. The usability of this information and the overall customer experience is enhanced through the cloud-based tracker.

Note: For information about SWIFT GPI use cases and processing, see SWIFT GPI Business Guide.

2 GPP Single Payments Use Cases

This table includes a list of Single Payments use cases supported by GPP.

Use Case	Basic Use Case
Outward Single Customer/Bank Payment	On-Us Transactions
	Outward Single Payments via Clearing
	Outward Cross Border Payment
Inward Single Customer/Bank Transfer	Inward Single Payments from Clearing
	Inward Cross Border payment Credit to Beneficiary
	Onward Cross Border Payment Credit to Domestic Bank
	Onward Cross Border Payment Credit to Overseas Bank
Outward Returns	Outward Returns for Clearing Payment
	Outward Returns for Cross Border Payment

Use Case	Basic Use Case
Inward Returns	Inward Return from Clearing
	Inward Return from SWIFT
Inward Bulk Payments	Inward Bulk Book Payments
Notice to Receive	Generate MT210

2.1 Outward Single Customer/Bank Payment

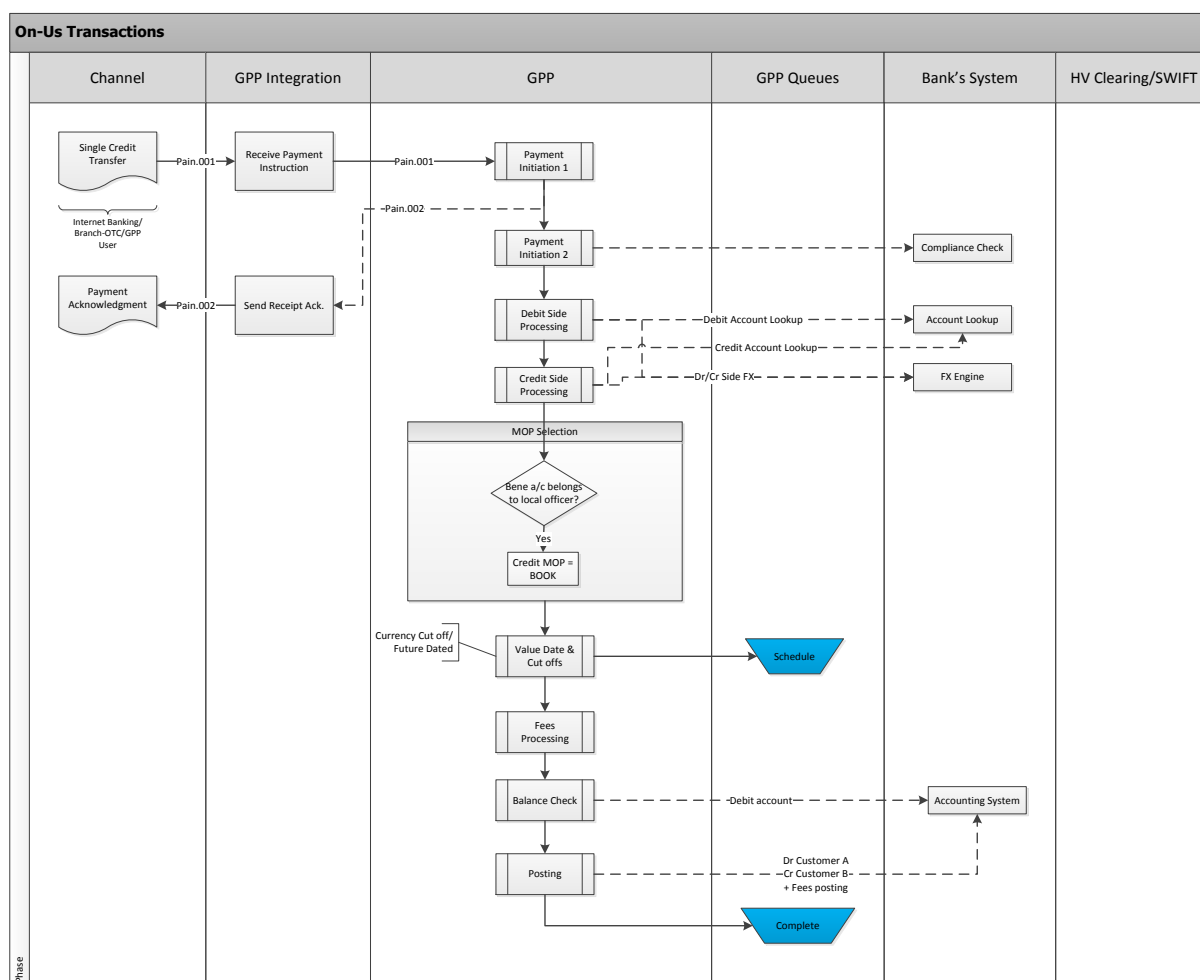
2.1.1 On-Us Transactions

Use Case Name	On-Us Transactions
Actors	Initiators are Internet banking channel, GPP user, and branch.
Description	Defines the outward single payments initiated by internet banking channels, branch users, and GPP users (manual create) for credit to beneficiary in local bank's Book.
Trigger	A customer wants to transfer funds in local or foreign currency to a beneficiary either via internet banking or via bank's user.
Pre-conditions	Channel connectivity, availability of GPP user interface, foreign exchange (FX) rates available (in case of FX payment).
Post-conditions	Payment credited to the beneficiary.
Basic flow	The system receives a single payments transfer and processes it successfully to complete using the Book method of payment.
Alternate flow	None

2.1.1.1 Business Scenario

Book transfer between accounts within local office.

2.1.1.2 Workflow



2.1.1.3 Process

On-us transactions are processed in GPP using the Single Payments workflow. These transactions go through the following high level processes.

1. GPP receives an outward single fund transfer from a channel in pain.001 format, or it is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, office) and performs payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).
3. GPP performs debit side processing to identify the party (debtor account in bank's Book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more details, see [Debit Side Processing](#). The FX conversion if applicable will also be done during debit side processing itself.
4. GPP performs the credit side processing to identify the party (creditor account in bank's Book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more details, see [Credit Side Processing](#) and [Debit Side Processing](#). The FX conversion, if applicable, is done during credit side processing.
5. GPP assigns the Book method of payment (Credit MOP), since the first in credit chain belongs to the local office. For more details, see [MOP Selection](#).

6. GPP performs value date and processing date calculation. GPP processes the payment to Complete, when the processing date is equal to the current business date. When the processing date is in future, than GPP warehouses the transaction. For more details, see [Value Date](#).
7. GPP assigns the debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
8. GPP performs the fees calculation when the fees are configured for the transaction. For more details, see [Fees](#).
9. GPP performs the balance check when applicable for the debit account. For more information, see [Balance Inquiry](#).
10. GPP creates the posting legs (Main Dr/Cr, Fees DR/CR) for the transaction. It sends the posting entries to the core banking systems. For more details, see [Posting \(Customer Leg\)](#).
11. After a successful posting response, GPP processes the payment to the Complete queue.

Note: Financial institutions may require processing On-us Book transactions at the internet banking or branch level, instead of processing in GPP.

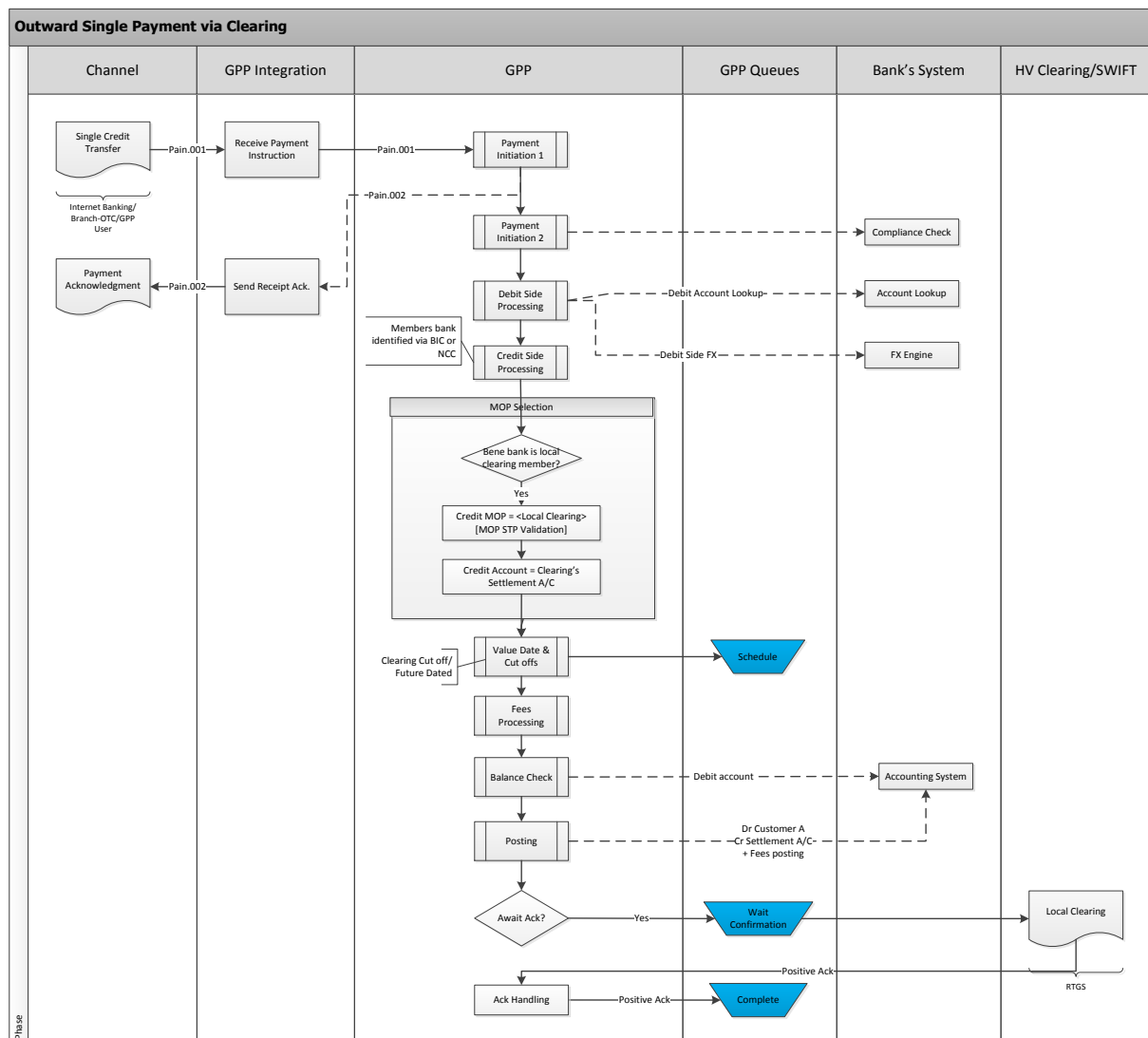
2.1.2 Outward Single Payments via Clearing

Use Case Name	Outward Single Payments via Clearing
Actors	Initiators are Internet banking channel, GPP user, and branch. Receiver is the Clearing Gateway.
Description	Defines the outward single payments initiated by Internet banking channels, branch users, and GPP users (manual create) to be settled via local clearing.
Trigger	A customer wants to transfer funds in local or foreign currency (when local clearing supports foreign currency clearing), to the beneficiary either via internet banking or via bank's user.
Pre-conditions	Channel connectivity, availability of GPP user interface, and connectivity with clearing network.
Post-conditions	Payment is processed and delivered to the clearing for further settlement.
Basic flow	GPP receives a single fund transfer and processes it successfully to complete using local clearing method of payment.
Alternate flow	Refer to Business Scenario .

2.1.2.1 Business Scenario

- Outward single payments to direct participant
- Outward single payments to indirect participant routed via its direct participant
- Outward single payments failed validations
- [Outward single payments received NAK from clearing](#)
- [Outward single payments received ACK/NAK from channel in Fndt format](#)
- Outward single payments request for cancellation

2.1.2.2 Workflow



2.1.2.3 Process

Outward single payments via clearing is processed in GPP using the Single Payments workflow. This type of transaction goes through the following high level processes:

1. GPP receives outward single fund transfer from a channel in pain.001 format, or it is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, office), and performs payment initiation business functions (for example, compliance check and duplicate check). For more information, see [Payment Initiation](#).
3. GPP performs the debit side processing in order to identify the party (debtor account in bank's Book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more information, see [Debit Side Processing](#). The FX conversion, if applicable, is also performed during the debit side processing.
4. GPP performs the credit side processing in order to identify the party (creditor agent is identified by NCC/SWIFT BIC) involved in the payment chain.
5. GPP determines the method of payment (Credit MOP) as the local clearing by evaluating the MOP Selection rule. GPP validates the Target MOP validation rules as per the scheme

requirements. For example creditor agent is member of the clearing, and minimum amount criteria is met. For more information, see [MOP Selection](#).

6. Once a MOP is assigned and validated, GPP assigns the credit account as the settlement account that the local bank holds with the clearing. For more information, see [MOP Selection](#).
7. GPP performs the value date and processing date calculation.
 - If processing date is equal to current business date, GPP processes the payment to Complete.
 - If processing date is in the future and the clearing allows same day value payments only, GPP warehouses the transaction.
 - GPP also checks whether the clearing cut off has passed. The payments post clearing cut off should be scheduled for next business day processing.
 - GPP also considers the clearing calendar to ensure that the value date provided is not a holiday. For more information, see [Value Date](#).
8. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
9. GPP perform the fees calculation when fees are configured for the transaction. For more information, see [Fees](#).
10. GPP perform the balance check if applicable for the debit account. For more information, see [Balance Inquiry](#).
11. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the payment. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).
12. When posting response is successful [the payment is routed to WaitConfirmation and once the clearing ACK is received](#), [then](#) GPP processes the payment to the [Complete](#) queue.

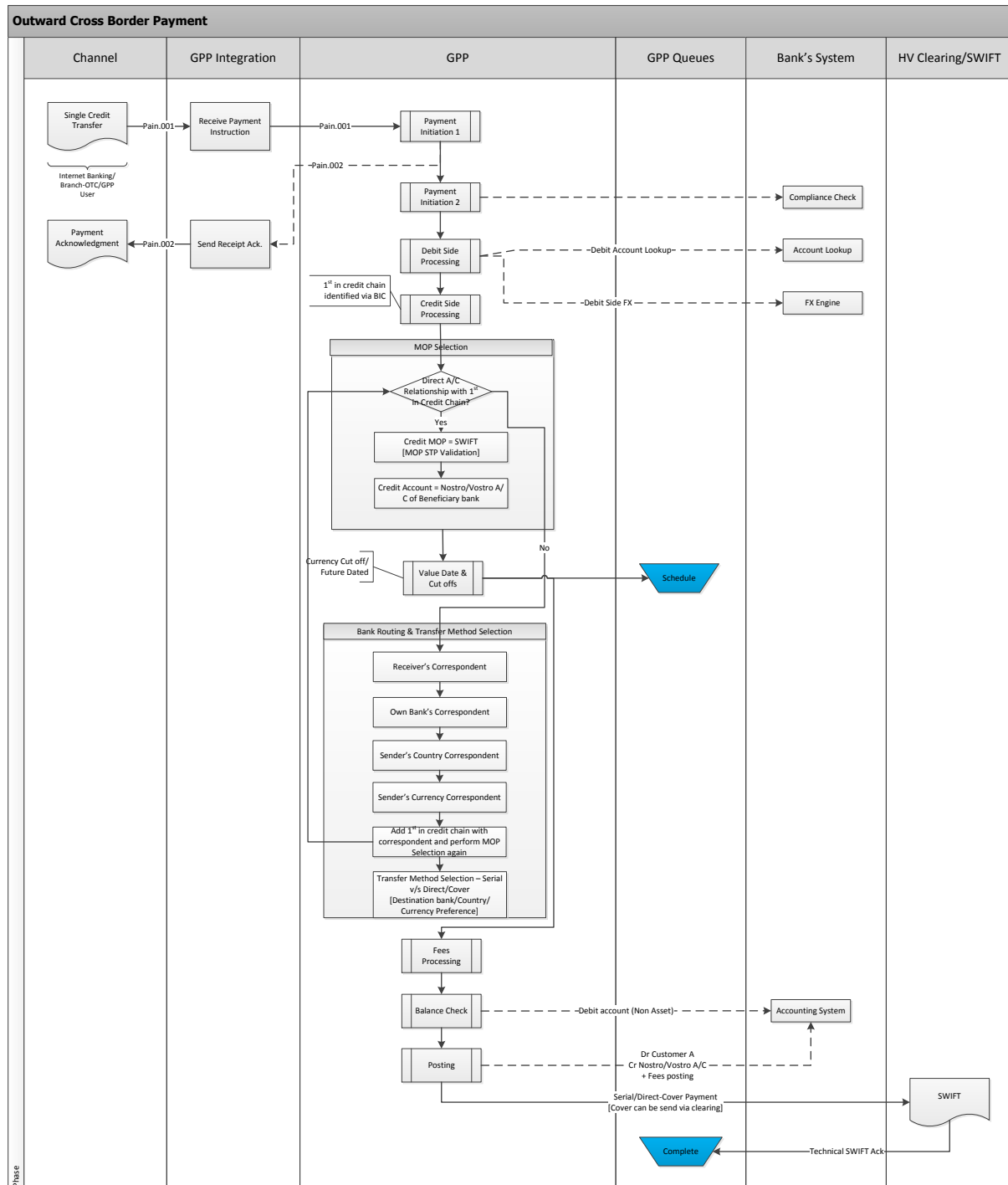
2.1.3 Outward Cross Border Payment

Use Case Name	Outward Cross Border Payment
Actors	Internet banking channel, GPP user, and branch are the initiators. SWIFT Gateway will be the receiver.
Description	This use case defines the outward single fund transfer initiated by internet banking channels/ branch users/ GPP users (manual create) to be settled via SWIFT (either direct account relationship or via correspondent banking).
Trigger	A customer wants to transfer funds in foreign currency (sometime even in local currency) to beneficiary located overseas either via Internet banking or via bank's user.
Pre-conditions	Channel connectivity, availability of GPP user interface, and connectivity with SWIFT network.
Post-conditions	Payment is processed and delivered to the SWIFT.
Basic flow	The system receives a single fund transfer and processes it successfully to Complete using SWIFT method of payment.
Alternate flow	Refer to Business Scenario

2.1.3.1 Business Scenario

- Outward cross border payment to beneficiary bank with direct relationship
- Outward cross border payment to beneficiary bank via correspondent
- Outward cross border payment using serial method
- Outward cross border payment using direct/cover method
- Outward request for cancellation

2.1.3.2 Workflow



2.1.3.3 Process

Outward cross border payments are processed in GPP using the Single Payments workflow. These transactions go through following high level processes.

1. GPP receives outward single fund transfer from the channel in pain.001 format or is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, office) and performs important payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).
3. GPP performs the debit side processing in order to identify the party (debtor account in bank's Book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more information, see [Debit Side Processing](#).
The FX conversion, if relevant, is done during the debit side processing.
4. GPP performs the credit side processing in order to identify the party (creditor agent is identified by NCC in the SWIFT BIC) involved in the payment chain.
5. GPP determines the method of payment as SWIFT (Credit MOP) by evaluating the MOP Selection rule, when any other domestic clearing methods are not valid to effect the payment to the first in credit chain. For more information, see [MOP Selection](#).
6. GPP determines if the first in chain provided in the payment has an accounting relationship with the local bank.
 - When there is a relationship, GPP derives that account (Nostro/Vostro) as the credit account.
 - When there is no direct account relationship:
 - › GPP determines the correspondent via which the payment can be effected. The correspondent can be a specific destination bank (looking at Standard Settlement Instruction), or the local bank's preferences for certain type of payments, country or currency default correspondents.
 - › GPP also determines the transfer method (Serial versus Direct/Cover) based on the destination bank's preference, rule based mechanism or country/currency preference.

For more information, see the [MOP Selection](#) (also known as credit MOP) is applied only if it passes all the MOP validations. GPP is pre-configured (system configuration) for standard clearing MOP validations for each clearing supported (for example, Max Amount, Min Amount check).

7. GPP performs the value date and processing date calculation.
 - GPP can process cross border payments as back dated, current date, or with a forward value date.
 - GPP also takes into account the currency cut offs and currency attributes (Same Day Value, Next Day Value and SPOT) for processing cross border payment, and various holidays for example, currency holiday, receiver country's calendars.

For more information, see [Value Date](#).

8. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
9. GPP performs the fees calculation if fees are configured for the transaction. For more information, see [Fees](#).
10. GPP performs the balance check if applicable for the debit account. For more information, see [Balance Inquiry](#).
11. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the transaction. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).

12. After a successful posting response, GPP processes the payment to the **Complete** queue.

2.2 Inward Single Customer/Bank Transfer

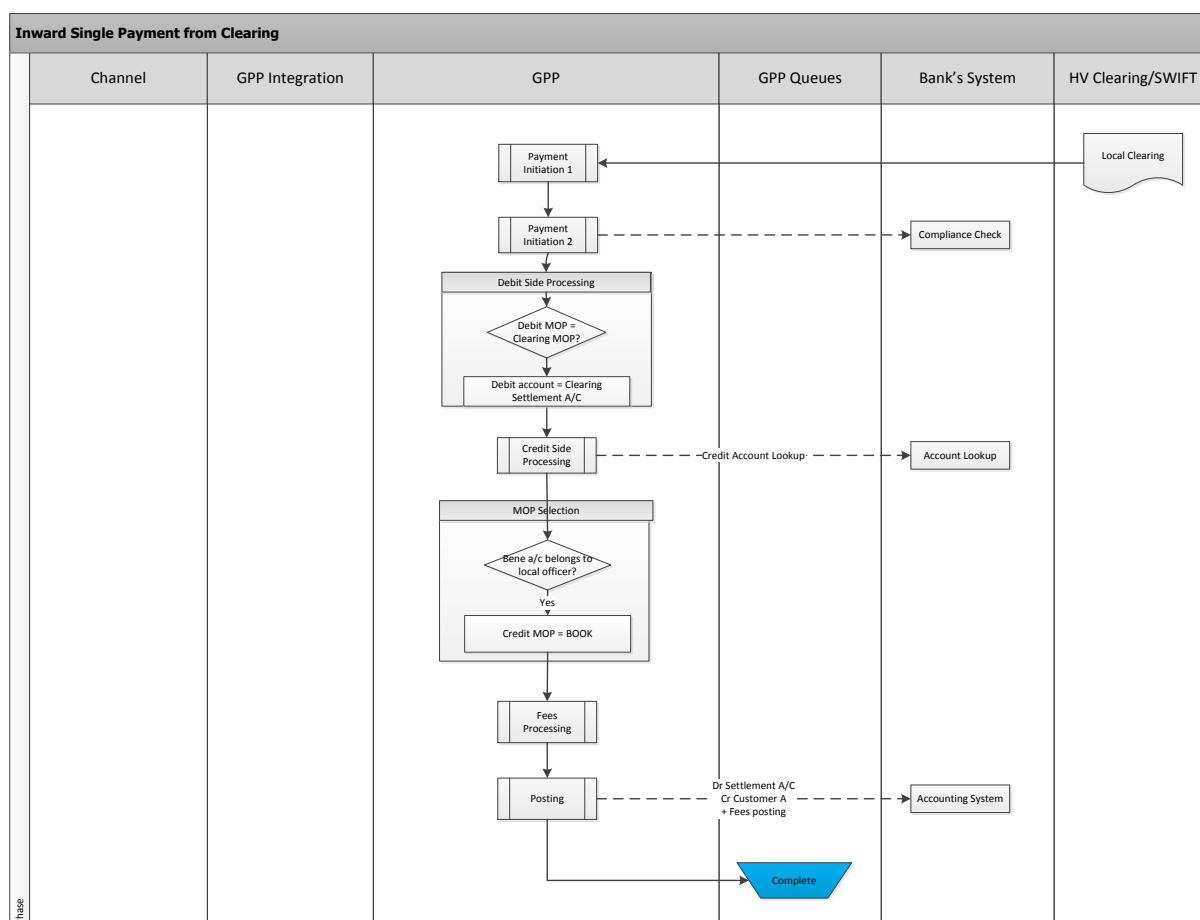
2.2.1 Inward Single Payments from Clearing

Use Case Name	Inward Single Payments from Clearing
Actors	Clearing gateway, beneficiary
Description	This use case defines the inward single fund transfer initiated via local clearing for further credit to the local office customer account (beneficiary).
Trigger	Incoming clearing message received in GPP.
Pre-conditions	Connectivity with clearing network.
Post-conditions	Payment is processed and funds credited to the clearing.
Basic flow	GPP receives a single fund transfer from a local clearing, such as CHAPS, FEDWIRE, CHATS, MEPS, RENTAS2. GPP identifies the payment and the credit account. GPP credits the beneficiary after debiting the local clearing settlement account.
Alternate flow	Refer to Business Scenario

2.2.1.1 Business Scenario

- Inward single payments from clearing successful credit to beneficiary
- Inward clearing returned due to errors in payment

2.2.1.2 Workflow



2.2.1.3 Process

An inward single payments from clearing is processed in GPP using the Single Payments workflow. This transaction goes through following high level processes.

- GPP receives an outward single fund transfer from the channel in pain.001 format or is created manually.
- GPP parses the payment instruction, assigns basic attributes (for example, MID, and office) and performs important payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).
- GPP performs the debit side processing in order to identify the party.
 - For a payment received via clearing, GPP assigns the debit MOP as a clearing MOP based on the scheme defined criteria. For example, clearing using SWIFT Fincopy model will have tag 103 (Fincopy service), which determines that the payment has been sent by which clearing (for example, MEP for MESP in Singapore).
 - If the clearing supports a multiple currencies clearing (for example, CHATS in Hong Kong or RENTAS in Malaysia) then GPP has a rule based mechanism which can additionally consider the currency criteria to determine which currency clearing MOP the payment belongs to. For more information, see [Debit Side Processing](#).
- GPP performs the credit side processing in order to identify the party (usually creditor account in the bank's Book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more information, see [Credit Side Processing and Debit Side Processing](#).

The FX conversion, if applicable, will also be done during credit side processing itself.

5. GPP assigns the Book method of payment (Credit MOP) when the first in the credit chain belongs to the local office. For more information, see [MOP Selection](#).
6. GPP performs the value date and processing date calculation.
 - GPP processes the payment to Complete when the processing date is equal to the current business date.
 - When the processing date is in the future, GPP warehouses the transaction.
 For more information, see [Value Date](#).
7. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
8. GPP performs the fees calculation when fees are configured for the transaction. Usually inward clearing payments are not charged to the beneficiary. For more information, see [Fees](#).
9. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the transaction. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).
10. After a successful posting response, GPP processes the payment to the Complete queue.

Note: Balance checking is not applicable when the settlement account as the debit account.

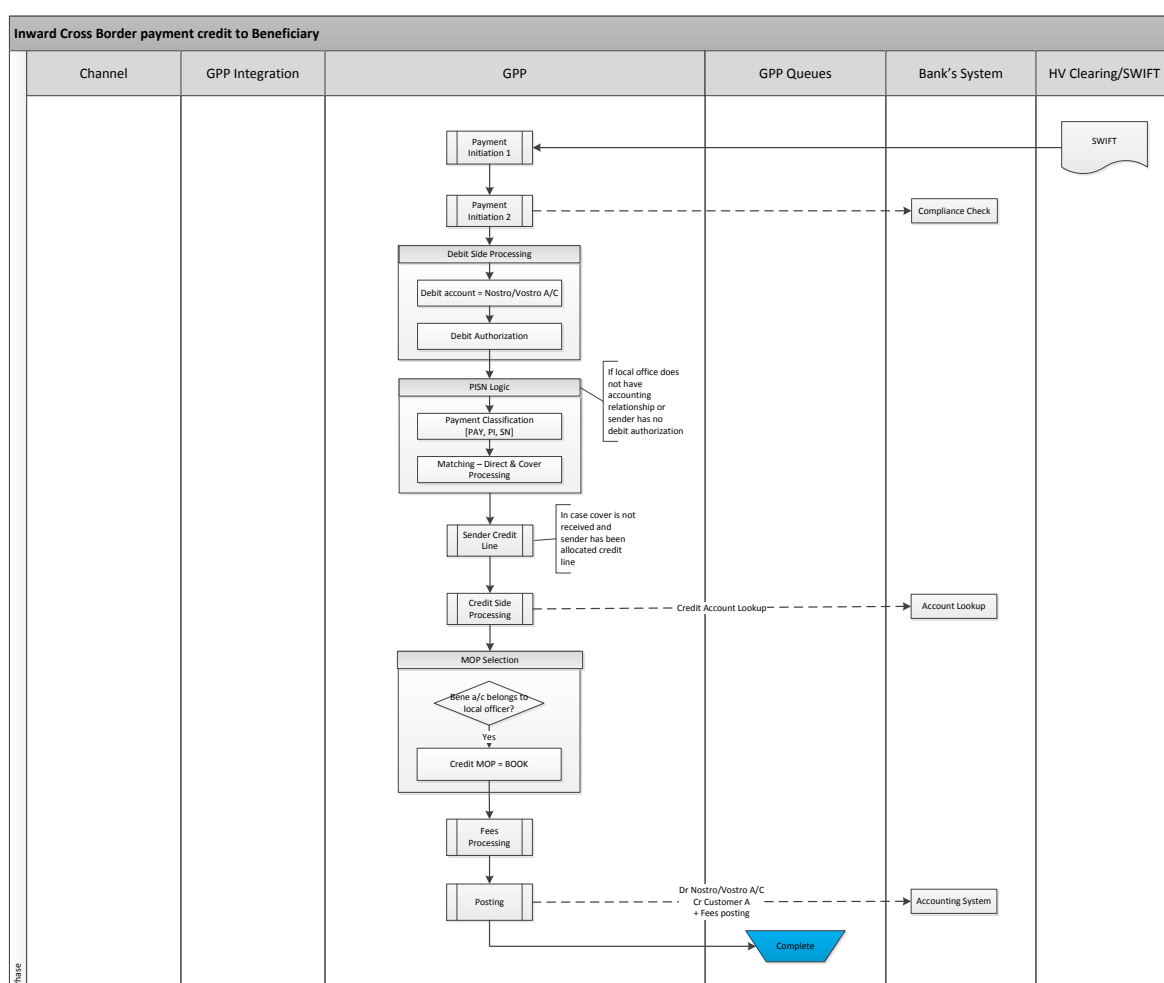
2.2.2 Inward Cross Border Payment Credit to Beneficiary

Use Case Name	Inward Cross Border Payment credit to Beneficiary
Actors	SWIFT Gateway, Beneficiary
Description	This use case defines the inward cross border fund transfer initiated by overseas bank via SWIFT for further credit to local office customer account (beneficiary).
Trigger	Incoming clearing message received in GPP.
Pre-conditions	Connectivity with SWIFT network.
Post-conditions	Payment is processed and funds credited to the beneficiary.
Basic flow	GPP receives a single fund transfer from overseas bank via SWIFT. GPP identifies such payments and the credit account. GPP credits the beneficiary after debiting the Nostro/Vostro account of sender/correspondent.
Alternate flow	Refer to Business Scenario

2.2.2.1 Business Scenario

- Inward single payments received serially
- Inward Direct-Cover payment
- Inward request for cancellation for an inward message

2.2.2.2 Workflow



2.2.2.3 Process

The inward cross border payments that credits to local bank's account (beneficiary in local bank's Book) follows the GPP Single Payments workflow. These transactions go through the following high level processes.

1. GPP receives an outward single fund transfer from the channel in pain.001 format or is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, and office) and performs important payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).
3. GPP performs the debit side processing in order to identify the party. Cross border payments can be received either from:
 - Financial institution with whom the local bank has a direct accounting relationship or financial institutions authorized to debit the account belonging to another entity (debit authorization)
 - Correspondents (cover payments)
 - Financial institution sending direct payments.

GPP determines the Nostro/Vostro account from the closed party in the payment chain.

In the case of a Direct/Cover scenario, upon receipt of the direct payment, GPP waits for its cover and vice versa. If the local bank has provided a credit line to the sending bank (of direct

message), GPP can also utilize the sender credit line to credit the beneficiary without waiting for the cover.

For more information, see [Debit Side Processing](#).

4. GPP performs the credit side processing in order to identify the party (usually creditor account in bank's book) involved in the payment chain. GPP can also integrate with core banking systems to validate or get account details. For more information, see [Credit Side Processing and Debit Side Processing](#).

The FX conversion, if applicable, is also done during the credit side processing.

5. GPP assigns the Book method of payment (Credit MOP) if the first in credit chain belongs to the local office. For more information, see [MOP Selection](#).
6. GPP performs the value date and processing date calculation.
 - When the processing date is equal to current business date, GPP processes the payment to Complete.
 - When the processing date is in the future, GPP warehouses the transaction.

For more information, see [Value Date](#).

7. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
8. GPP performs the fees calculation if fees are configured for the transaction. For more information, see [Fees](#). Usually, inward clearing payments are not charged to the beneficiary.
9. GPP performs the balance check, if applicable, for the debit account. For more information, see [Balance Inquiry](#).
10. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the transaction. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).
11. After a successful posting response, GPP processes the payment to the **Complete** queue.

Note: Balance checking is not applicable for Nostro Account (asset accounts) when it is a debit account.

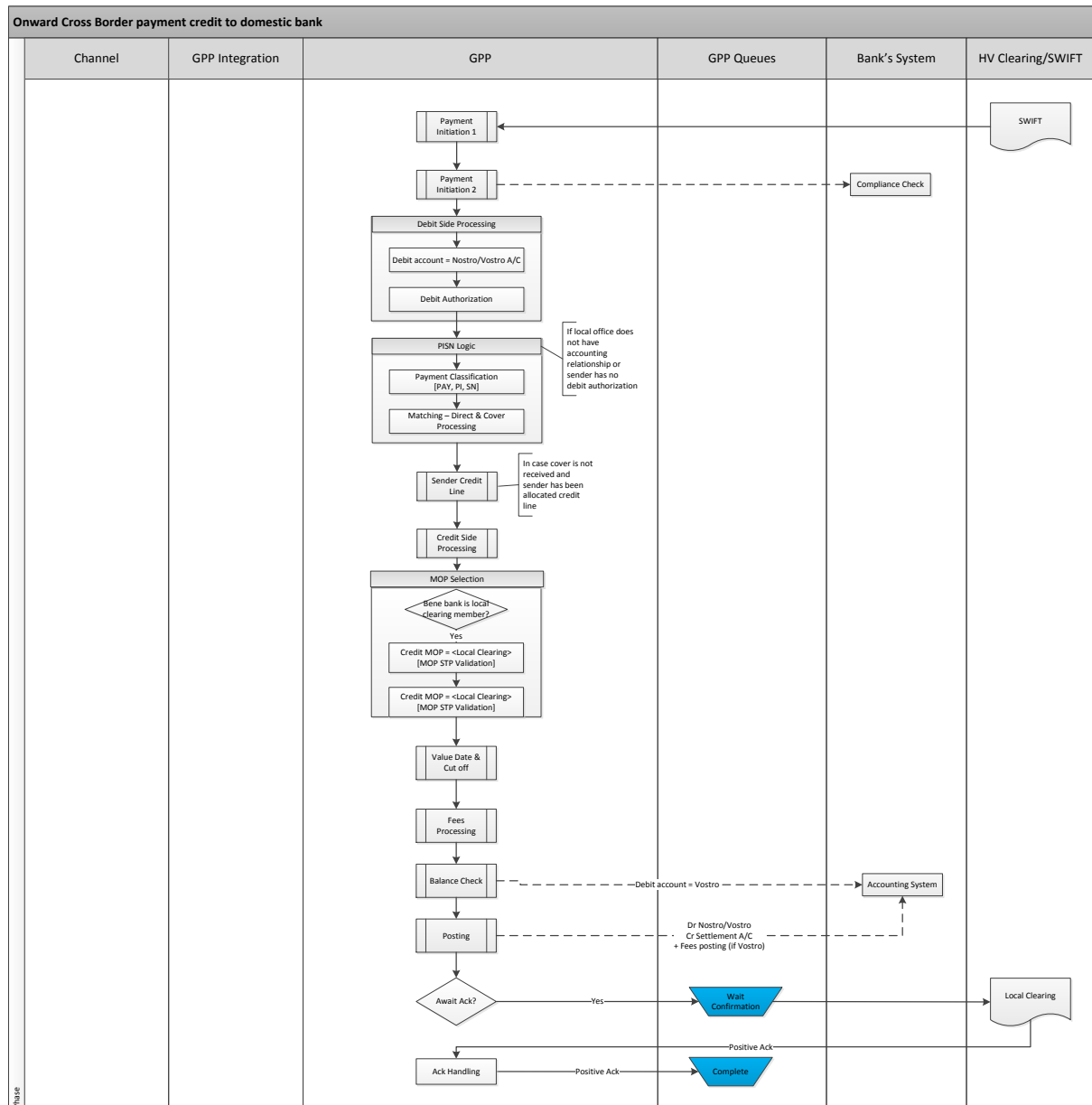
2.2.3 Onward Cross Border Payment Credit to Domestic Bank

Use Case Name	Onward Cross Border Payment Credit to Domestic Bank
Actors	SWIFT Gateway, Beneficiary Bank
Description	This use case defines the onward single fund transfer coming from SWIFT for further credit to the domestic bank's customer account (beneficiary) either via local clearing or SWIFT.
Trigger	Incoming SWIFT message received in GPP.
Pre-conditions	Connectivity with SWIFT/Clearing network.
Post-conditions	Payment is processed and funds credited to the clearing.
Basic flow	GPP receives a single fund transfer from SWIFT. GPP identifies the payment and the domestic beneficiary bank. GPP credits the local clearing settlement account or Nostro/Vostro account held with beneficiary bank.
Alternate flow	Refer to Error! Reference source not found.

2.2.3.1 Business Scenario

- Onward payment via Clearing
- Onward cross border via SWIFT

2.2.3.2 Workflow



2.2.3.3 Process

The onward cross border payments with creditor agent as a local clearing member bank follows the GPP Single Payments workflow. These transactions go through the following high level processes.

1. GPP receives an outward single fund transfer from channel in pain.001 format or is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, and office) and performs important payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).

3. GPP performs the debit side processing in order to identify the party. Cross border payments can be received either from:
 - Financial institution with whom the local bank has a direct accounting relationship, or financial institutions authorized to debit the account belonging to another entity (debit authorization)
 - Correspondents (cover payments)
 - Financial institution sending direct payments.

GPP determines the Nostro/Vostro account from the closed party in the payment chain.

In the case of a Direct/Cover scenario, upon receipt of the direct payment, GPP waits for its cover and vice versa. If the local bank has provided a credit line to the sending bank (of direct message), GPP can also utilize the sender credit line to credit the beneficiary without waiting for the cover.

For more information, see [Debit Side Processing](#).

4. GPP performs the credit side processing in order to identify the party (creditor agent is identified by NCC and SWIFT BIC) involved in the payment chain.
5. GPP determines the method of payment (credit MOP) as a local clearing by evaluating the MOP Selection rule. GPP validates the Target MOP validation rules as per the scheme requirements. For example, the creditor agent is a member of the clearing, and the minimum amount criteria is met. For more information, see [MOP Selection](#).
6. Once a MOP is assigned and validated, GPP assigns the credit account as the settlement account that the local bank holds with the clearing. For more information, see [MOP Selection](#).
7. GPP performs the value date and processing date calculation.
 - If processing date is equal to current business date, GPP processes the payment to Complete.
 - If processing date is in the future, GPP warehouses the transaction if clearing allows same day value payments only.

GPP also checks whether the clearing cut off has passed or not. The payments post clearing cut off will be scheduled for next business day processing.

GPP also considers the clearing calendar to ensure that the value date provided is not a holiday.

For more information, see [Value Date](#).

8. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
9. GPP performs the fees calculation if fees are configured for the transaction. For more information, see [Fees](#). Usually, inward clearing payments are not charged to the beneficiary.
10. GPP performs the balance check, if applicable, for the debit account. For more information, see [Balance Inquiry](#).
11. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the transaction. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).
12. After a successful posting response, GPP processes the payment to the Complete queue.

Note: Balance checking is not applicable for Nostro Account (asset accounts) when it is a debit account.

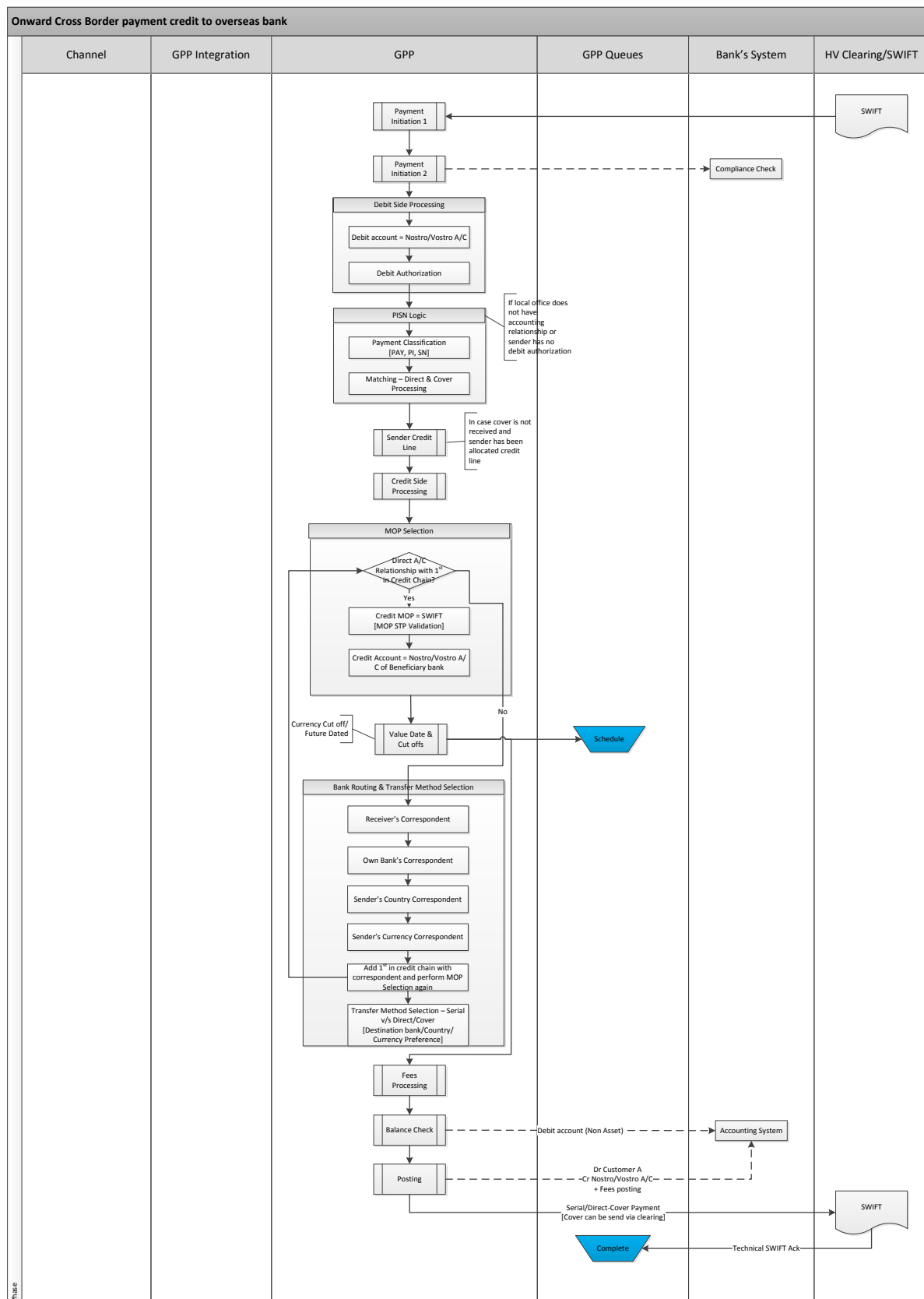
2.2.4 Onward Cross Border Payment Credit to Overseas Bank

Use Case Name	Onward Cross Border Payment Credit to Overseas Bank
Actors	SWIFT Gateway, Beneficiary bank
Description	This use case defines the onward single fund transfer coming from SWIFT for further credit to an overseas bank's customer account (beneficiary) SWIFT.
Trigger	Incoming SWIFT message received in GPP.
Pre-conditions	Connectivity with SWIFT network.
Post-conditions	Payment is processed and funds credited to the beneficiary bank.
Basic flow	GPP receives a single fund transfer from SWIFT. GPP identifies the payment and the overseas beneficiary bank. GPP credits the Nostro/Vostro account held with beneficiary bank.
Alternate flow	Refer to Error! Reference source not found.

2.2.4.1 Business Scenario

- Onward Cross Border via SWIFT

2.2.4.2 Workflow



2.2.4.3 Process

The onward cross border payments with creditor agent as overseas bank follows the GPP Single Payments workflow. These transactions go through the following high level processes.

1. GPP receives an outward single fund transfer from the channel in pain.001 format or one is created manually.
2. GPP parses the payment instruction, assigns basic attributes (for example, MID, and office) and performs important payment initiation business functions (for example, compliance check, and duplicate check). For more information, see [Payment Initiation](#).
3. GPP performs the debit side processing in order to identify the party. Cross border payments can be received either from:
 - Financial institution with whom the local bank has a direct accounting relationship or financial institutions authorized to debit the account belonging to another entity (debit authorization)
 - Correspondents (cover payments)
 - Financial institution sending direct payments.

GPP determines the Nostro/Vostro account from the closed party in the payment chain.

In the case of a Direct/Cover scenario, upon receipt of the direct payment, GPP waits for its cover and vice versa. If the local bank has provided a credit line to the sending bank (of direct message), GPP can also utilize the sender credit line to the credit beneficiary without waiting for the cover.

For more information, see [Debit Side Processing](#).

4. GPP performs the credit side processing in order to identify the party (creditor agent is identified by NCC and SWIFT BIC) involved in the payment chain.
5. GPP determines the method of payment as SWIFT (credit MOP) by evaluating the MOP Selection rule, when other domestic clearing methods are not valid to effect the payment to the first in credit chain. This means that the payment cannot be effected with local clearings and SWIFT, as a default method needs to be used (provided there is a Nostro/Vostro relationship or correspondent relationship with first in credit chain bank). For more information, see [MOP Selection](#).
6. GPP determines if first in chain provided in the payment has an accounting relationship with the local bank
 - If there is a relationship, GPP derives that account (Nostro/Vostro) as the credit account.
 - If there is no direct account relationship, GPP determines the correspondent via which the payment can be effected. The correspondent can be destination bank's specific (looking at standard settlement instruction), local bank's preferences for certain type of payments, country or currency default correspondents.

GPP also determines the transfer method (serial versus direct/cover) based on destination bank's preference, rule based mechanism or country/currency preference.

For more information, see [MOP Selection](#) (also known as credit MOP) is applied only if it passes all the MOP validations. GPP is pre-configured (system configuration) for standard clearing MOP validations for each clearing supported (for example, Max Amount, Min Amount check).

7. GPP performs the value date and processing date calculation.
 - GPP can process cross border payments as back dated, current date or with forward value date.
 - GPP also takes into account the currency cut offs and currency attributes (Same Day Value, Next Day Value and SPOT) for processing cross border payment.
 - Additionally various holidays, for example, currency holiday, receiver country's calendars, are also taken into account.

For more information, see [Value Date](#).

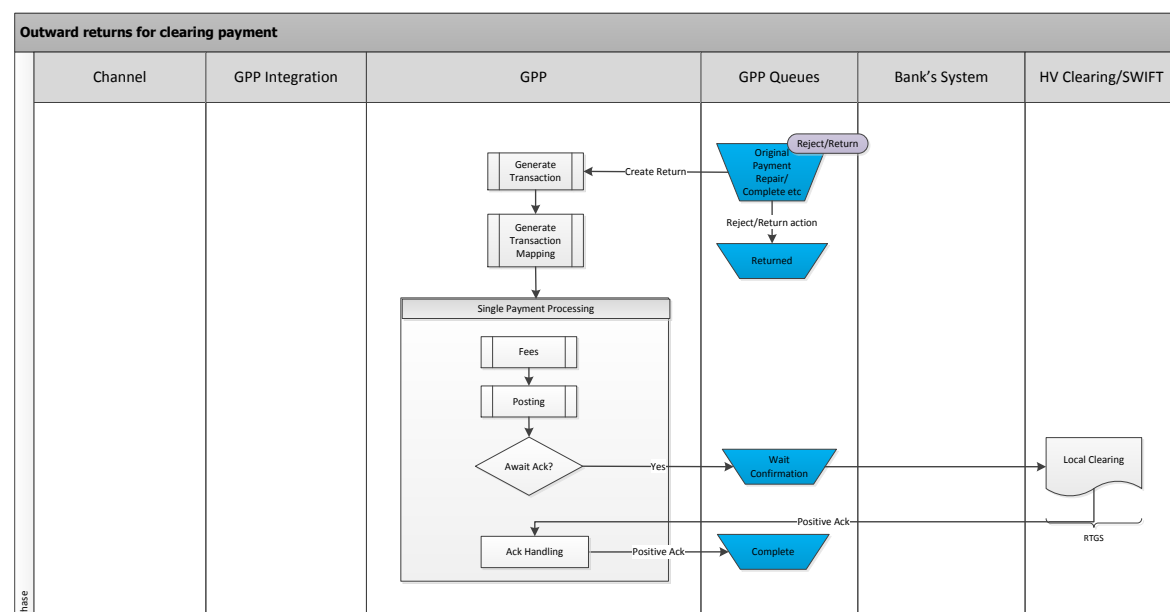
8. GPP assigns a debit and credit transactions code. For more information, see [Debit and Credit Transaction Codes](#).
9. GPP performs the fees calculation if fees are configured for the transaction. For more information, see [Fees](#).
10. GPP perform the balance check, if applicable, for the debit account. For more information, see [Balance Inquiry](#).
11. GPP creates the posting legs (Main Dr/Cr, Fees Dr/Cr) for the transaction. It sends the posting entries to the core banking systems. For more information, see [Posting \(Customer Leg\)](#).
12. After a successful posting response, GPP processes the payment to the **Complete** queue.

2.3 Outward Returns

2.3.1 Outward Returns for Clearing Payment

Use Case Name	Outward Returns for Clearing Payment
Actors	Operation users
Description	Defines the outward returns initiated by an operation user (GPP user) for an inward clearing payment.
Trigger	Incoming clearing payment is received in GPP.
Pre-conditions	Connectivity with clearing network, access to GPP message pages with relevant access rights to return payments.
Post-conditions	Payment is processed and funds are returned to the clearing.
Basic flow	GPP receives a single fund transfer from a local clearing, such as CHAPS, FEDWIRE, CHATS, MEPS, RENTAS2 and the financial institution must return the payment.

2.3.1.1 Workflow



2.3.1.2 Process

GPP receives the inward clearing payments. If the user needs to return the inward payment instruction, the inward payment can be returned from specific queues that allows return (for example, Repair, Posting Restriction, or Complete).

GPP follows following steps when generating an outward return.

Return message can be created using the Return button.

This button should appear under one of the below conditions:

1. User clicks Return from a designated queue. The Return button is only displayed when Debit posting was done, or Debit account is an asset account (for example, message was received from a clearing house).
2. GPP generates a page, which allows a user to select the return reasons and codes as per the clearing requirements.
3. GPP derives the debit account for the ROF (return of funds) as follows:
 - When credit side posting is performed the original credit account is used as the debit account of the ROF message.
 - When credit side posting is not performed on the original payment, the debit account of the return payment is populated with the ROF account from the credit MOP profile.
 - When no ROF account exists, then the user must enter a debit account (mandatory field) in order to submit the payment.
 - The ROF account (or the debit account entered by the user) is copied later in the processing as the credit account of the original payment.
4. GPP automatically generates the return transaction.
5. GPP creates the relationship between the original payments with its return – Original Payment^Outgoing Reject Return.
6. GPP assigns the MOP as follows:
 - Return payment
 - › Debit MOP is set to BOOK and credit MOP is set to the debit MOP of the original payment.
 - Original payment
 - › When the return payment is initiated before the credit MOP of the original payment is derived, then the credit MOP is automatically set to BOOK after processing is complete.
7. GPP performs posting as follows:
 - When posting on the original payment is done successfully on both the debit and credit sides, then posting on the return message debits/credits the same accounts.
 - When posting on the original payment is done only on the debit side or not at all, then posting on the return message debits the ROF account/user selected account and credits the original debit account.
 - › Once the funds are returned the credit account of the original message is set with the debit account from the return message.
 - › Once set, the posting on the original payment is completed. When no posting is done on the original payment, then both debit and credit posting is performed, otherwise, if only debit posting was done, the credit posting is performed.
8. The return transaction can be mapped with a specific set of values using a system rule based mapping mechanism.

9. After submit, GPP processes the return payment using the Single Payments workflow for charges, reversal of posting and message delivery. The original payment is sent to the Returned queue.

For more information, see [Outward Returns](#).

Note: The return transaction generation is based on system configuration.

2.3.2 Outward Returns for Cross Border Payment

Use Case Name	Outward Returns for Cross Border Payment
Actors	Operation users
Description	This use case defines the outward returns initiated by an operation user (GPP user) for an inward SWIFT payment.
Trigger	Incoming SWIFT payment is received in GPP and falls into Repair queue.
Pre-conditions	Connectivity with SWIFT network, access to GPP message pages with proper access rights to return payments.
Post-conditions	Payment is processed and funds are returned to the sender via SWIFT.
Basic flow	GPP receives a single fund transfer from SWIFT. GPP identifies the payment but it drops to Repair queue (for example, due to invalid account, posting restrictions, validations).
Alternate flow	Refer to Business Scenario

2.3.2.1 Business Scenario

- Outward returns when beneficiary is a local bank's customer
- Onward return upon receiving inward return from clearing for an onward payment

2.3.2.2 Workflow

Same as [Outward Returns for Clearing Payment](#).

2.3.2.3 Process

The process for outward returns is similar to the outward returns for clearing payments.

The only difference is the way the message is being formatted. For example, F72 of cross border SWIFT payment has /REJT/ and /RETN/, whereas it may be different for certain clearings as per the clearing interfacing requirements.

2.4 Inward Returns

2.4.1 Inward Return from Clearing

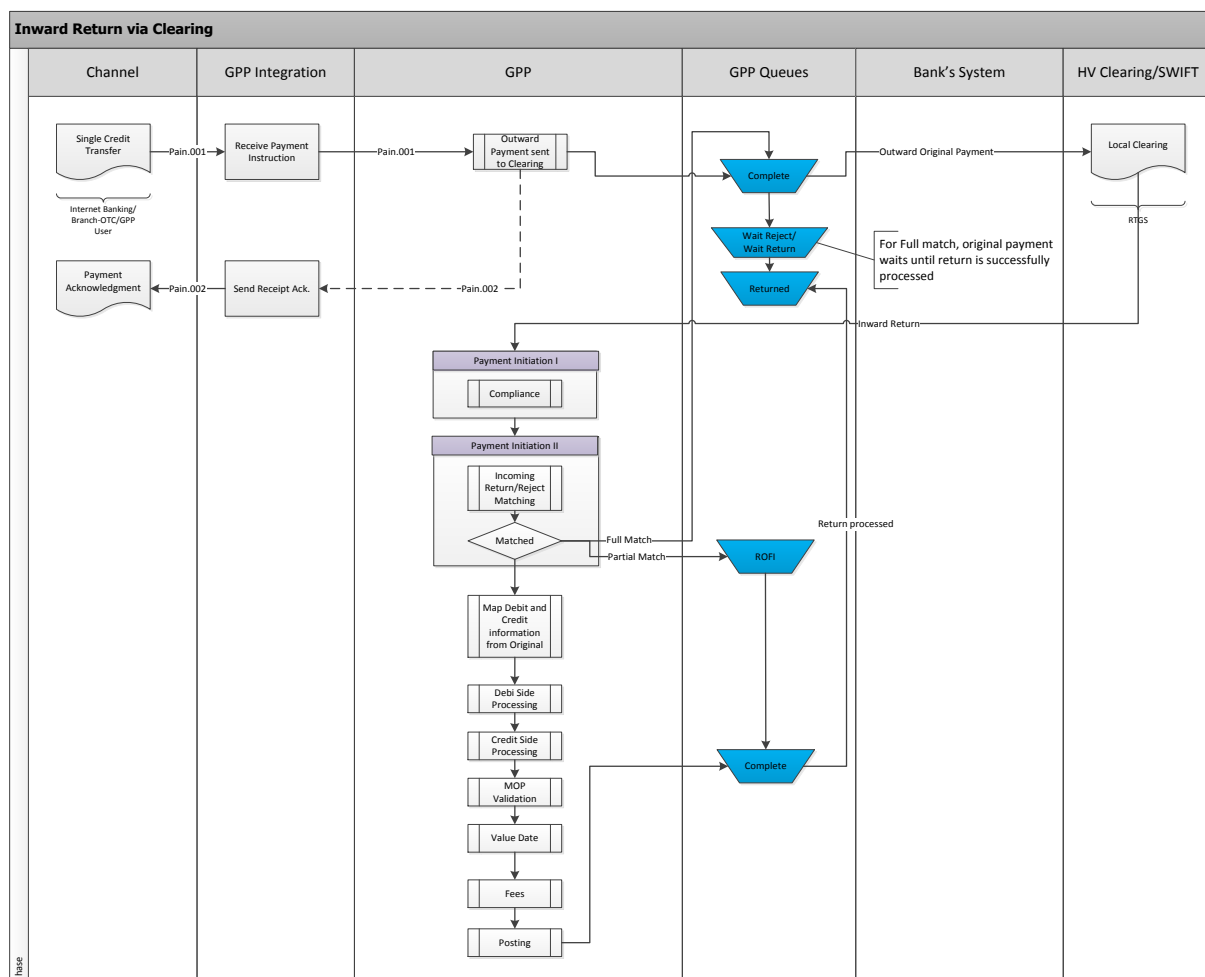
Use Case Name	Inward Returns from Clearing
Actors	Clearing

Use Case Name	Inward Returns from Clearing
Description	This use case defines the inward returns from clearing for an outward clearing payment.
Trigger	Incoming clearing return is received in GPP for an outward clearing payment sent out.
Pre-conditions	Connectivity with clearing.
Post-conditions	Payment is processed and funds are credited back to the ordering customer/debtor.
Basic flow	GPP receives an inward return from clearing for an outward clearing payment sent out earlier. GPP identifies the return and matches it with original outward payment. Post successful matching (full), funds are credited back to the ordering customer/debtor.
Alternate flow	Refer to Business Scenario

2.4.1.1 Business Scenario

Inward return from clearing for an outward payment

2.4.1.2 Workflow



2.4.1.3 Process

GPP may receive inward return payments from the clearing. GPP has the capability to identify payments as returns and match them with its outward payment. GPP follows the following main steps for processing inward returns.

1. GPP sends out payments to the clearing and original payment is successfully sent to the **Complete** queue.
2. GPP receives an inward clearing payment.
3. GPP can be configured to identify the clearing payment as a return based on the unique attributes defined by the clearing. For more information on the clearings, see GPP Business Guide Clearing Processing.
4. GPP performs the matching of this inward return with its original outward payment using the matching criteria that can be configured as per clearing requirements using a system configuration.
5. GPP creates the relationship between the original payments with its inward return; Incoming Reject Return^Original Payment.
6. The full match returns are processed (Straight Through Processing) and GPP swaps the debit and credit accounts to return the funds.
7. GPP can be configured to take charges for the return and then posting can be performed for charges and reversals.
8. The partial match returns are sent to the ROFI queue for manual intervention.
9. The original payment is sent to the Returned queue after waiting for returns to be processed completely.

For more information, see [Outward Returns](#).

2.4.2 Inward Return from Cross Border

Use Case Name	Inward Returns from Cross Border
Actors	SWIFT
Description	This use case defines the inward returns from SWIFT for an outward SWIFT payment.
Trigger	Incoming SWIFT return is received in GPP for an outward SWIFT payment sent out.
Pre-conditions	Connectivity with SWIFT.
Post-conditions	Payment is processed and funds are credited back to the ordering customer/debtor.
Basic flow	GPP receives an inward return from SWIFT for an outward SWIFT payment sent out earlier. GPP identifies the return and matches it with original SWIFT payment. Post successful matching (full), funds are credited back to the ordering customer/debtor.
Alternate flow	Refer to Business Scenario

2.4.2.1 Business Scenario

Inward return from SWIFT for an outward Cross border payment

2.4.2.2 Workflow

Same as [Inward Return from Clearing](#).

2.4.2.3 Process

An inward return from cross border follows a similar process to returns received from clearing.

The only difference is that GPP identifies cross border payment returns as per the standard SWIFT guidelines (F72 with /REJT/ and /RETN/ codeword). The SWIFT return payments do not swap the F50 and F59, whereas for clearing payments the parties might be swapped as per the clearing guidelines. In GPP, the party information (F50 and F59) does not affect the return processing.

For reversing the posting, GPP matches the incoming returns and swaps its debit and credit accounts for reverse posting.

2.5 Inward Bulk Payments

GPP supports message types MT101, MT102, MT102 STP, MT203, and MT204, multiple customer, financial transfer, and direct debit messages. These messages are de-bulked and individual MT103 and MT202 messages are created as per the Sequence B information received. These transactions are processed to Complete after de-bulking and no further user actions are required on these messages. GPP creates a link between multiple messages with its single child messages and can also navigate to them.

The individual messages created are processed as per the standard Single Payments Workflow.

GPP supports MT102 message processing in two modes, as per the prior agreement with debit party:

- Debit Lump Sum mode: GPP takes into consideration the debit posting already handled on a parent message. If there is a cancellation, GPP also handles the reversing of the individual posting already performed using the parent message.
- Non-Debit Lump Sum mode: Individual payments are processed independently including its posting.

For more information, see GPP Business Guide Message Types.

2.6 Notice to Receive

GPP processes the message MT210 (notice to receive) for the following business scenarios:

1. Service to Vostro Customer: Customers/financial institutions can send an MT210 for anticipated funds which they are expecting to receive in their accounts or one of its account serving institutions. It is used to track the projected end of day balance.

GPP accepts such payments and supports automatic as well as manual matching with incoming receipt of funds (serial as well as cover messages). Multiple matching methods can be supported via system configuration. GPP supports full match as well as possible match. The possible match is to be manually reconciled and this is facilitated by an easy-to-use split screen user interface.

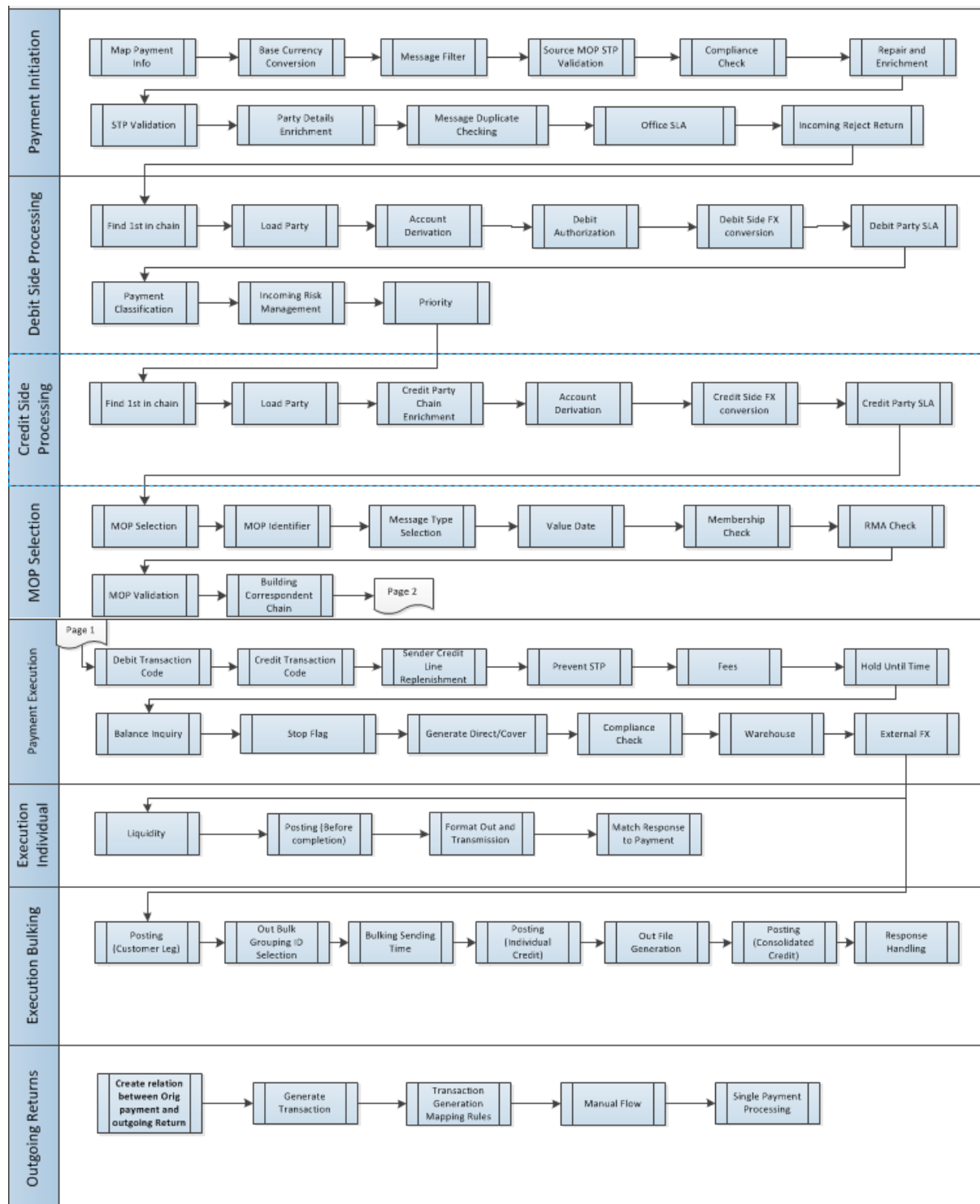
2. Internal MT210 against Charges: GPP supports the automatic generation of MT210 messages when creating an outward MT191 - Request for Charges. These MT210s are used to track the expected charges.

3 GPP Processing

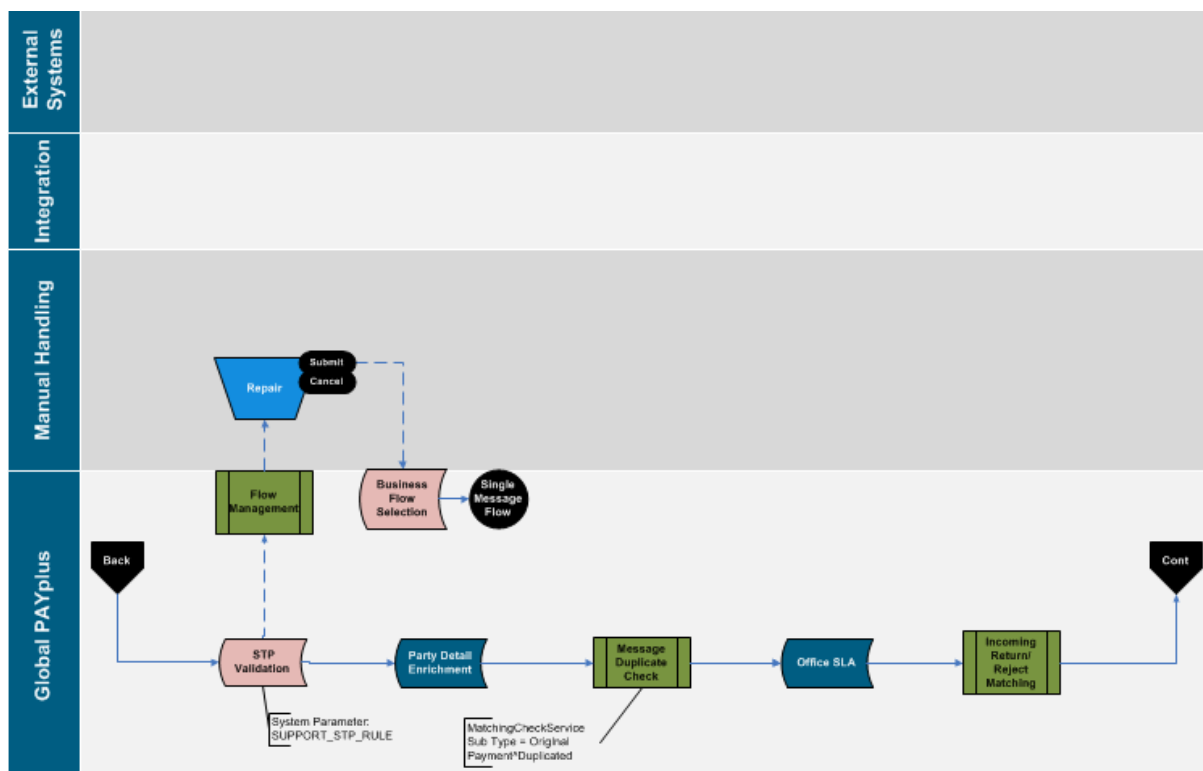
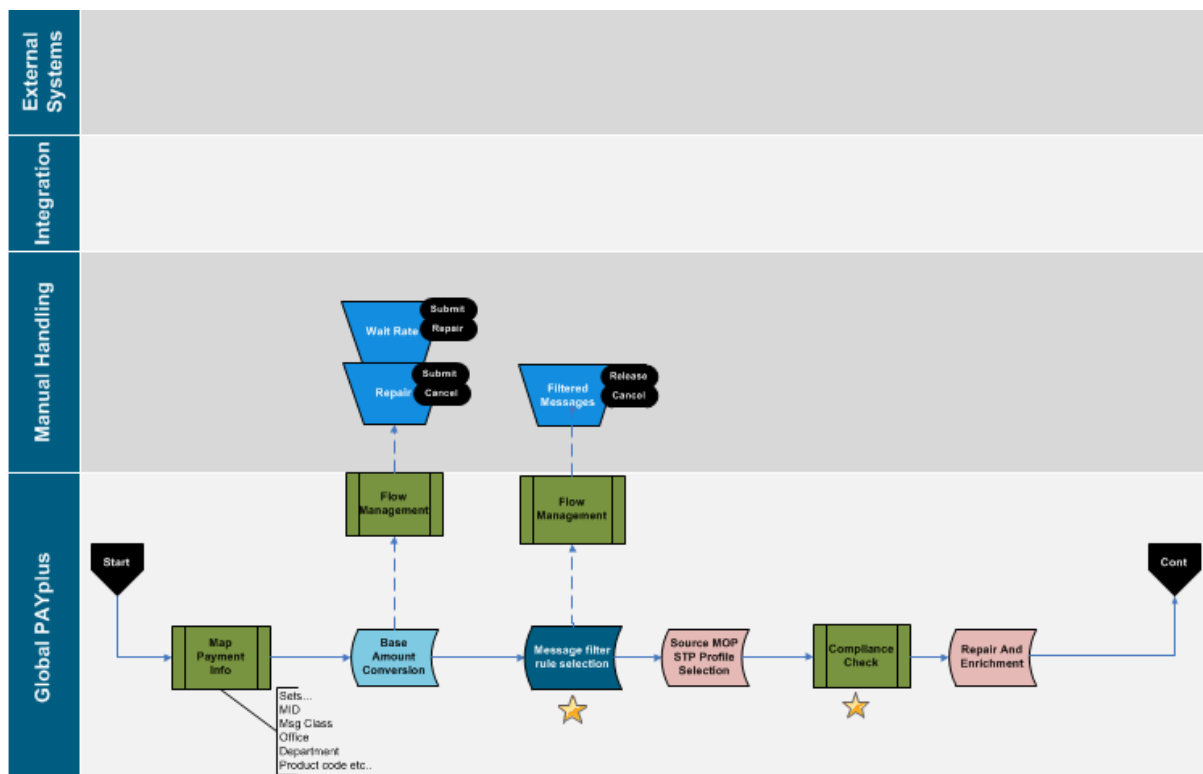
GPP processes incoming and outgoing credit and debit transactions. This section provides details of the end to end GPP processes describing each step in the Single Payments flow.

For the legend used in the processing workflows, see [Appendix B: Single Payments Workflow Legend](#).

3.1 Single Payments High Level Workflow



3.2.1 Payment Initiation Workflow



3.2.2 Map Payment Info

GPP derives and identifies fundamental payment attributes, for example, Message ID (uniquely identifies message in GPP), Local Office (for across legal entities or countries implementation), Department, Business Area, and Product. The message type of an incoming payment message may

be set using the Inbound Message Type Selection rules, and the payment priority using the Prioritization business rules.

3.2.3 Base Currency Conversion

GPP converts all payments to a base currency equivalent and calculates the base amount in the local office currency equivalent. This base amount is used in GPP processing in various places in the payment workflow, for example, during account posting, amount validation like foreign exchange thresholds.

3.2.4 Message Filter

GPP excludes payments that meet specific rule conditions, which are defined in the Message filter business rule, from being processed at the initial stage in payment processing. For example, the financial institution only processes USD payments, all other currency payments are stopped (until the filter is removed).

3.2.5 Source MOP STP Validation

GPP performs the required validation on the payment, which is based on the source of the payment. For example, for incoming clearing payments, a system rule can be configured to ensure allowed values are only received in certain fields, defining mandatory fields.

3.2.6 Compliance Check

GPP determines whether the payment is compliant as per regulations. GPP can interface with external compliance engines to perform the compliance check.

3.2.7 Repair and Enrichment

GPP has the ability to automatically repair payments and enrich specific payment fields by deriving required information, which increases STP rates.

Payments can be automatically repaired and enriched using the Repair and Enrichment rules, which can derive missing information that was not included in the original payment message.

GPP can use these rules to do the following:

- Set values of missing transaction attributes
- Remove values from transaction attributes
- Update transaction statuses

3.2.8 STP Validation

The STP validation mechanism in GPP provides an ability to apply complex validations and manipulations on the payment.

3.2.9 Party Details Enrichment

To enrich the party's information, GPP identifies and loads relevant account information for the first in chain party. For example, derives local clearing code from BIC.

3.2.10 Message Duplicate Check

Duplicate checking is executed on payments that are either:

- Received by GPP from external networks (ACH) or internal applications
- Manually entered or handled by a user

Based on the selected algorithm (key message fields such as message type, currency, amount and beneficiary), GPP examines every payment for possible duplication. If a payment is a duplicate, GPP routes the payment to the Dupex queue for manual handling.

3.2.11 Office SLA

In the payment processing flow, GPP checks as early as possible whether the payment is associated with a specific Service Level Agreement (SLA) profile, which defines payment processing constraints. For example, processing the payment by a specific time (EBA priority payments processed within 90 minutes), SLA for Continuous Linked Settlement (CLS) payments.

GPP can alert a user when the SLA is about to be exceeded. When multiple SLAs are defined, then the earliest or most urgent SLA is considered. SLA can be defined at a local office level.

3.2.12 Incoming Reject Return

GPP matches incoming reject and return payments with the outward payment processed and reverses the accounting.

3.3 Debit Side Processing

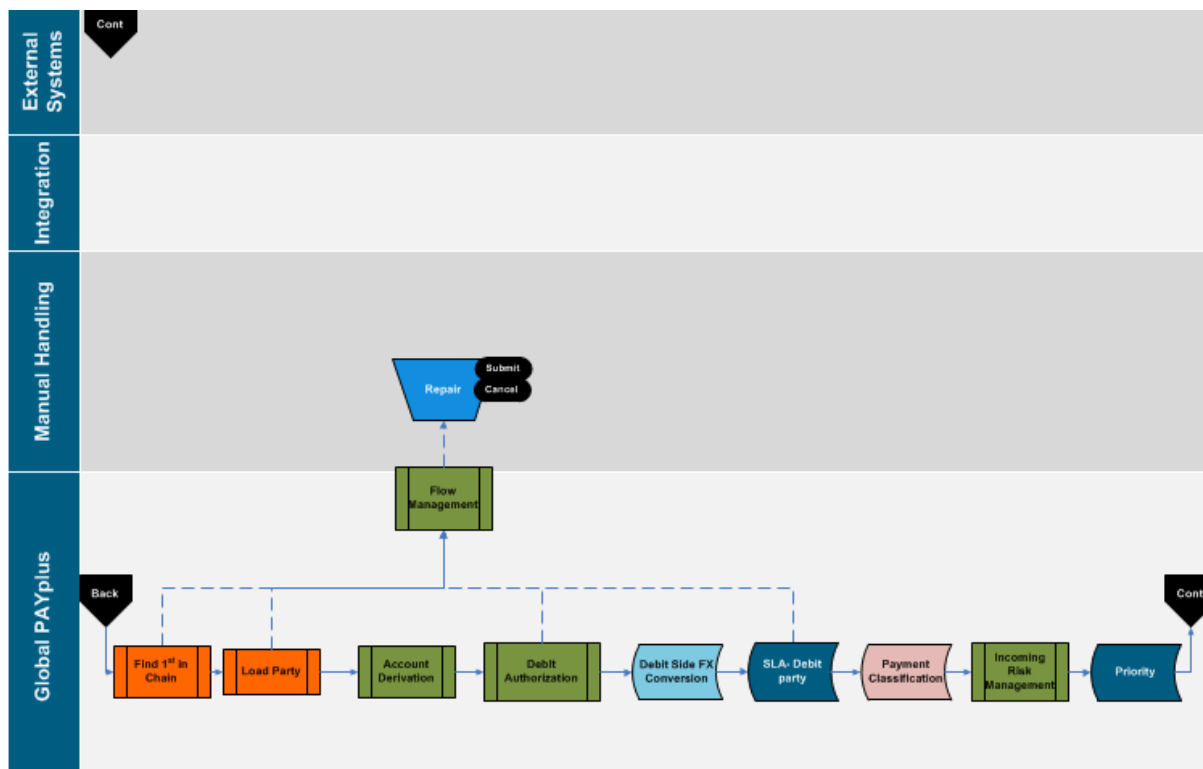
The Debit side process is responsible for identifying the debit party, its account and performing debit side foreign exchange conversion if required.

GPP supports identification of parties by SWIFT BIC, Local National Clearing Codes, IBAN and GPP assigned customer codes (for pain transactions). GPP maintains the customers and financial institutions (typically banks) records in the Parties profile. The SWIFT BIC's can be uploaded by Bank Directory Plus. Other parties identified by national clearing codes or bank's customers can be uploaded by the GPP Profile Multi-Action service.

To validate party information, GPP can interface with the financial institution's accounting system, to validate the party information, using the GPP standard Account Lookup interface. For more information, see Account Lookup Interface in the GPP Business Guide System Integration - Single Payments.

This section describes the high level steps that the payment follows during the Debit Side processing. For a detailed description of the steps, see GPP Business Guide Parties Identification, unless stated otherwise in the specific section.

3.3.1 Debit Side Workflow



3.3.2 Find First in DR Chain

The transaction source (from where the payment is being sent) can be identified for the first party in the debit chain.

This process involves GPP identifying the first party from the parties quoted in the SWIFT payment debit chain. The debit party can be any of the following:

- Another bank (sender)
- A clearing
- Field 53 - example, debit account to be debited, Instructing Reimbursement Agent
- Field 54 - Instructed Reimbursement Agent
- Field 55 - example, Third Reimbursement Agent

Identification of the debit party can be performed using the BIC, NCC, IBAN or GPP internal customer codes.

When the first in chain party cannot be identified, the transaction is sent to Repair.

3.3.3 Load Party

After successful identification of the party, GPP loads the party information from the GPP Parties profile.

3.3.4 Account Derivation

GPP derives the relevant accounts (debit account of a credit transfer) either from:

- Payment Information; Or

- Account Profile; Or
- External account lookup (customer database (CDB) lookup). Performed when a specific account cannot be found in GPP Accounts profiles. It stipulates whether an account lookup call to the financial institution's back office system is required. When using external lookup, GPP parks the payment in **Wait CDB** queue.

GPP is able to receive a Fee Account number from the CDB interface response and use it during message processing when posting fees. This Fee Account is considered when no matching Fee Account Selection rules are found and when there is a different account in the Party or Account profile.

In addition, users can manually insert the fee account to a message (Create, Repair, Wait/Stop queue), and GPP uses this account when posting fees.

The debit account can also be derived in other currencies (other than payment currency) if currency conversion is allowed.

GPP can override the account derived automatically with the account assigned by business rules for specific type of payments. For example, when an outward payment is pre-debited at the channel, GPP can derive a suspense account as the debit account overriding the customer account derived as the debit account using the automated derivation process.

3.3.5 Debit Authorization

GPP checks if the sender of the payment is authorized to debit the account which does not belong to the sender.

For example, all branches are authorized to debit specific head office account.

This step can be bypassed based on the payment's attributes. Also debit authority can be defined at global level by allowing exceptions for a specific regional branch.

3.3.6 Debit Side FX Conversion

When the debit account currency of the derived debit account is not equal to the payment's currency, there is a need to perform debit side foreign exchange. GPP supports calculation of debit amount when payment amount is fixed as well as calculation of payment amount when debit amount is fixed (reversal sell).

For more information, see GPP Currency Conversion Business Guide.

3.3.7 Debit Party SLA

GPP allows specific service level agreements to be defined with the debit party.

3.3.8 Payment Classification

GPP assigns the message class to the payment in order to distinguish specific processing needs. For example, the message class PAY indicates that the payment is a normal accounting message, whereas message class NAC indicates that the payment does not require accounting.

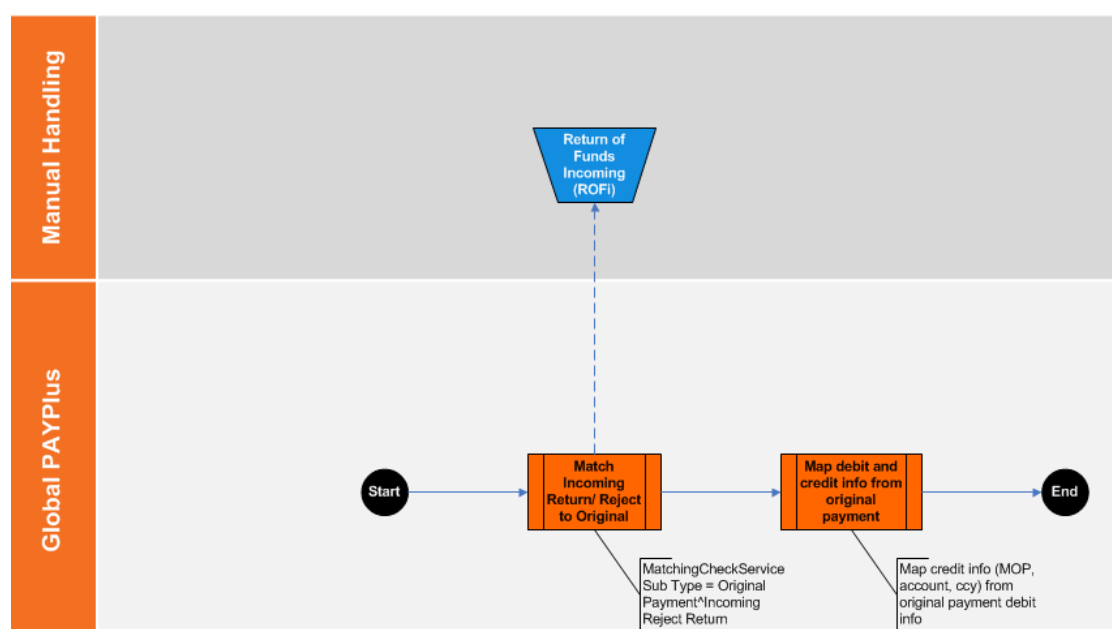
The default message class is assigned upon receipt of the payment, which is based on the type of message received, which can be adjusted later once GPP derives the debit party information. For example, message class PI is derived once GPP identifies that the payment MT103 is a direct message.

3.3.9 Incoming Risk Management

Incoming Risk Management covers Private Integrated Services Network (PISN) logic and Liquidity and Risk Management, which is an optional part of the Single Payments Flow invocation.

This section describes the high level steps that the payment follows during Incoming Risk Management. For a detailed description, see GPP Business Guide Liquidity & Risk Management.

- **Party Limits:** GPP accumulates the value of transactions and restricts the transactions when it crosses the amount limit defined for the specific party.
- **Anticipated Funds Matching:** GPP supports MT210 message type that allows businesses to match the MT210s sent by their customer for notifying the anticipated funds to their accounts. GPP is also capable of generating MT210 to track the receipt of charges to their account for an outgoing MT191 – Request for charges sent.
- **Matching Check:** GPP generic matching check mechanism is designed to perform the matching requirements between various types of payments. This mechanism is also used for matching incoming direct payments (message class PI – Payment Initiation) with its cover payments (message class SN – Settlement Notification). For a full match, GPP establishes the relationship between direct with its cover and proceeds further with payment completion. When there is a partial match, GPP allows users to manually match the PI or SN.



- **Sender Credit Line:** GPP allows credit to beneficiary upon receipt of only direct message (without its cover). Different credit lines (credit limits – specific amount to Unlimited) can be defined for the sender of the direct message.
- **Settlement confirmation matching.**
- **Ledger confirmation matching.**

For more information, see GPP Business Guide Liquidity & Risk Management.

3.3.10 Priority

A financial institution can define the priority (from lowest to extra special with 9 pre-defined priorities) for processing different types of payments in GPP. For example, CLS payments are typically high priority and therefore can be categorized as extra special priority payments. GPP processes the payment based on the defined priority.

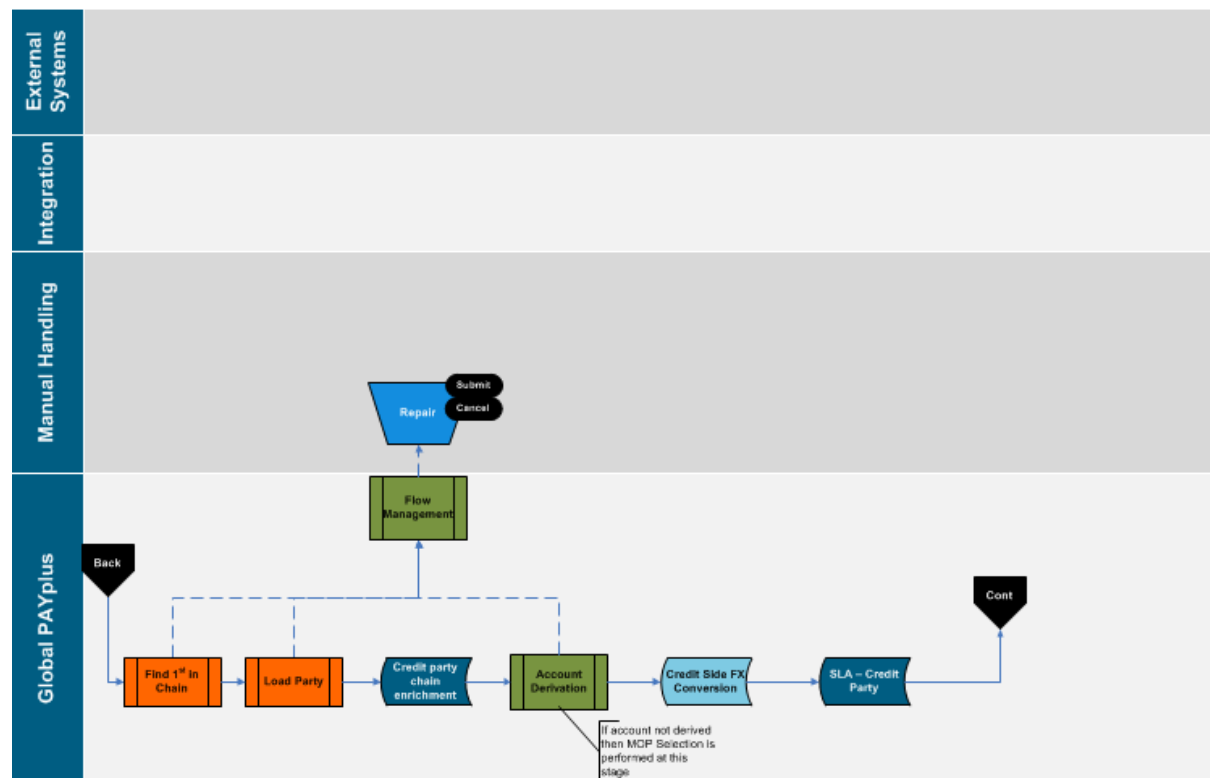
3.4 Credit Side Processing

The Credit side process is accountable for identifying the credit party in the payment chain. GPP supports identification of party's by SWIFT BIC, Local National Clearing Codes and IBAN. GPP maintains the customer's and financial intuitions (typically banks) records in the Parties profile. The SWIFT BIC's can be uploaded by Bank Directory Plus. Other parties identified by national clearing codes or bank's customers can be uploaded by GPP Profile Multi-Action service.

GPP can interface with the financial institution's accounting system, to validate the party information, using the GPP Standard Account Lookup interface. For more information, see Account Lookup Interface in the GPP Business Guide System Integration - Single Payments.

This section describes the high level steps that the payment follows during the Credit Side processing. For a detailed description of the steps, see GPP Business Guide Parties Identification, unless stated otherwise.

3.4.1 Credit Side Workflow



3.4.2 Find First in CR Chain

This process involves GPP identifying the credit party from the parties quoted in payment chain. Identification of the credit party can be performed using a BIC, NCC and/or IBAN.

The credit party can be any of the following:

- Instructed Agent/Receiver
- InstdRmbrsmntAgt/F56-Intermediary Institution
- CdtrAgt & CdtrAgtAcct/F57-Account with Institution
- Cdtr & CdtrAcct/F58/59-Beneficiary

3.4.3 Load Party

After successful identification of the party, GPP loads the party information from the GPP Parties profile.

3.4.4 Credit Party Chain Enrichment

Using the credit party chain enrichment process, a financial institution can add a new party to the credit chain or replace an existing party based on the payment attributes.

3.4.5 Account Derivation

GPP performs the account derivation either from the payment, Account's profile, or using an external account lookup (CDB lookup). GPP puts the payment in Wait CDB queue in case of external lookup. Credit account can also be derived in other currencies (other than payment currency) when currency conversion is allowed.

GPP is able to receive a Fee Account number from the CDB interface response and use it during message processing when posting fees. This Fee Account is considered when no matching Fee Account Selection rules are found and when there is a different account in the Party or Account profile.

In addition, users can manually insert the fee account to a message (Create, Repair, Wait/Stop queue), and GPP uses this account when posting fees.

3.4.6 Credit Side FX Conversion

Once the credit account is derived and if credit account currency is not equal to the payment's currency, there is a need to perform the credit side FX.

For more information, see GPP Currency Conversion Business Guide.

3.4.7 Credit Party SLA

GPP allows specific service level agreements to be defined with credit party.

3.5 MOP Selection

Method of Payment (MOP) defines the means via which a payment is executed and delivered, for example, Book Transfer, SWIFT, via the RTGS/Clearing House.

The method of payment determines many aspects of the processing such as:

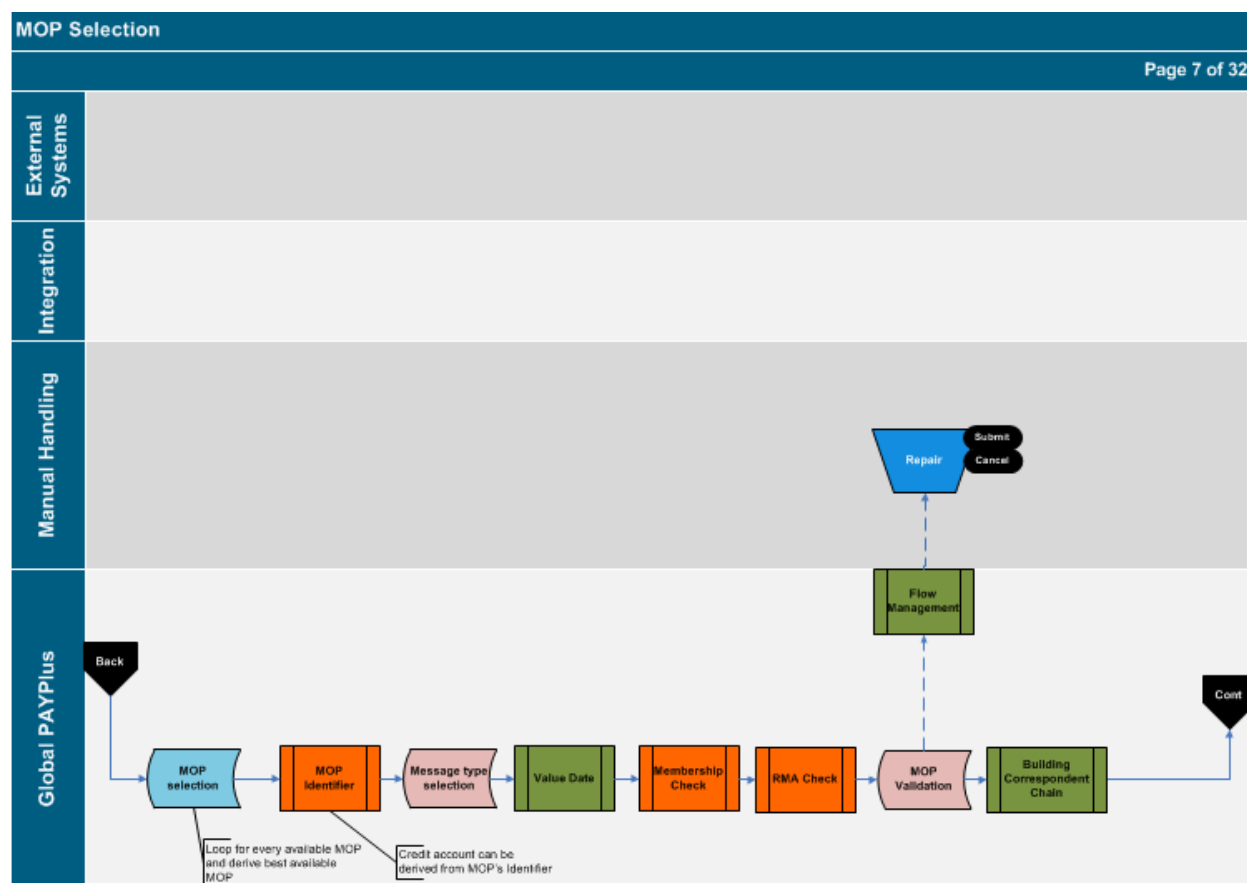
- Clearing settlement account (when using RTGS such as TARGET2).
- Value date determination (by taking into account the cut-off restrictions, currency attributes and the relevant calendars to be used)
- Formats and message types to be used
- Whether membership validation is required (for example, EBA membership)
- Whether exchange of bilateral keys or RMA is required
- Whether routing through correspondents is allowed or not

GPP supports both automated and manual MOP selection.

Once the MOP is identified, it is required to validate the payment as per the MOP formatting rules. For example, a payment to a specific clearing must comply with a certain format or follow minimum amount criteria.

This section describes the high level steps that the payment follows during the MOP Selection. For a detailed description of the steps, see GPP Business Guide Method of Payment, unless stated otherwise.

3.5.1 MOP Selection Workflow



3.5.2 MOP Selection

Credit Side Processing business process is dependent on the method via which the payment is going to be settled. For example, if after identifying the credit party, it is found that a local financial institution does not maintain any account relationship with its first in credit party but it is a member of an RTGS MOP or can be paid via correspondents, GPP performs the MOP Selection even if the credit account is not available.

GPP provides the list of pre-defined method of payments (MOP) supported, for example, BOOK, SWIFT, TARGET2, MEPS.

The financial institution can define the MOP selection rules for different types of payments based on their payment's attributes. For example, a payment above 200,000 within India should be settled via RTGS for India local office GPP implementation. GPP evaluates all the MOP selection rules and find out all the possible MOPs. It can derive the best MOP in which the payment should be settled.

3.5.3 MOP Identifier

GPP may need to enrich the payment with additional information, for example enrich the payment with NCC from its BIC for payments settled via a clearing that requires NCC.

For a clearing MOP (RTGS and low value clearing), GPP needs to identify the settlement account. Using the MOP Identifier's profile, the settlement account of the local bank (in local bank's Book) can be defined.

3.5.4 Message Type Selection

GPP evaluated the message type selection rule and converts the original message type into a different one depending on the candidate MOP. For example, TARGET2 supports SWIFT MT message and does not support ISO message. In order to evaluate TARGET2, the pain message needs to be converted to a SWIFT MT message.

3.5.5 Value Date

Value date determination is an integral part of MOP selection process. GPP calculates the value date and determines the best MOP with the earliest value date to process the payment.

For every candidate MOP, GPP calculates the value date, release date, and debit value date. Calculation of the date depends on the MOP (min/max dates allowed by MOP) and payment currency attributes (same day value, next day value, and SPOT currencies). Additionally, various calendars, such as, local office calendar, MOP calendar, and currency calendar are considered to calculate the desired value date on a business day.

GPP adjusts the value date post cutoff evaluation.

GPP supports these cutoff types:

- Processing cutoff: Required to set the time limit for processing any kind of payment within the local office.
- Clearing cutoff: Required for local clearing (RTGS, low value clearing) payments.
- Treasury/Currency cutoff: Also known as currency cutoff and is required for processing foreign currency cross border payments.

For more information, see GPP Business Guide Value Date and Cutoff Time.

3.5.6 Membership Check

For clearing MOPs (RTGS, and low value), GPP can be configured to validate that the first in credit chain is a direct or indirect member of the clearing system associated with the MOP. If the first in credit chain is an indirect participant then GPP can automatically add its direct participating bank to the credit chain.

3.5.7 RMA Check

GPP supports the pre-defined validation rules as per the MOP guidelines for Relationship Management Application (RMA) check. The RMA is a service provided by SWIFT to manage the business relationships between financial institutions.

For SWIFT payments, GPP checks the RMA before exchanging the SWIFT message with receiver of the payment.

3.5.8 MOP Validation

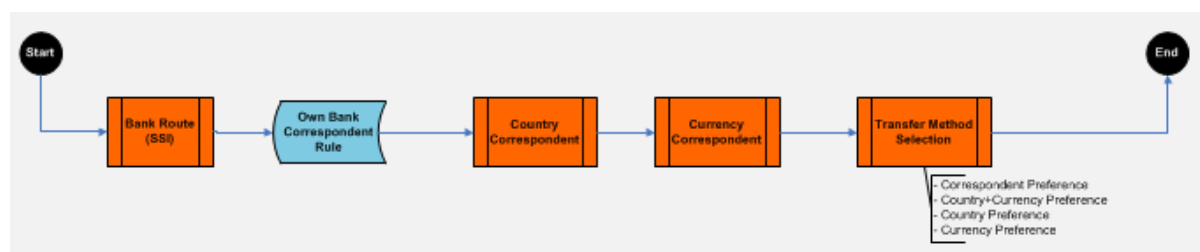
The Target MOP (also known as credit MOP) is applied only if it passes all the MOP validations. GPP is pre-configured (system configuration) for standard clearing MOP validations for each clearing supported (for example, Max Amount, Min Amount check).

3.5.9 Building Correspondent Chain

When no relationship exists with the credit chain party, the financial institution can transfer funds using another financial institution for processing and define the transfer method.

The building correspondent chain is an automated procedure that is performed by GPP when MOP selection fails on the party quoted in the payment chain. For example, for payments where no direct account relationship exists, first in chain is not a member of any clearing. GPP automatically identifies the alternate party through which payment can be made. GPP also determines the payment method (serial or cover) as per the preferences defined at the party, country and currency levels.

GPP determines the correspondent in the following order.



1. Receiver's correspondent (SSI), referred to as bank route in GPP flows.
2. Own bank's correspondent rule
3. Sender's country correspondent
4. Sender's currency correspondent - Multiple currency correspondents can also be defined and GPP randomly makes the payment via different currency correspondents.
5. After determining the correspondent, GPP determines the transfer method (Direct-Cover v/s Serial) by which the payment can be made.

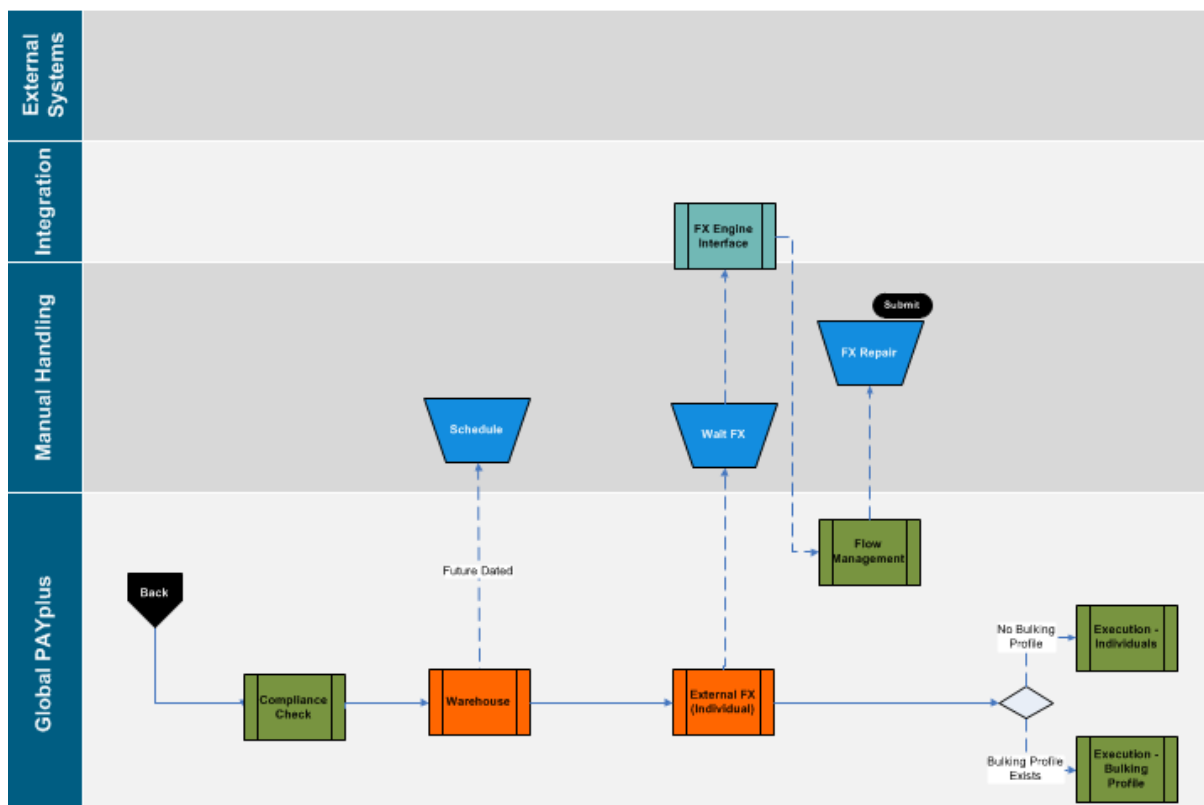
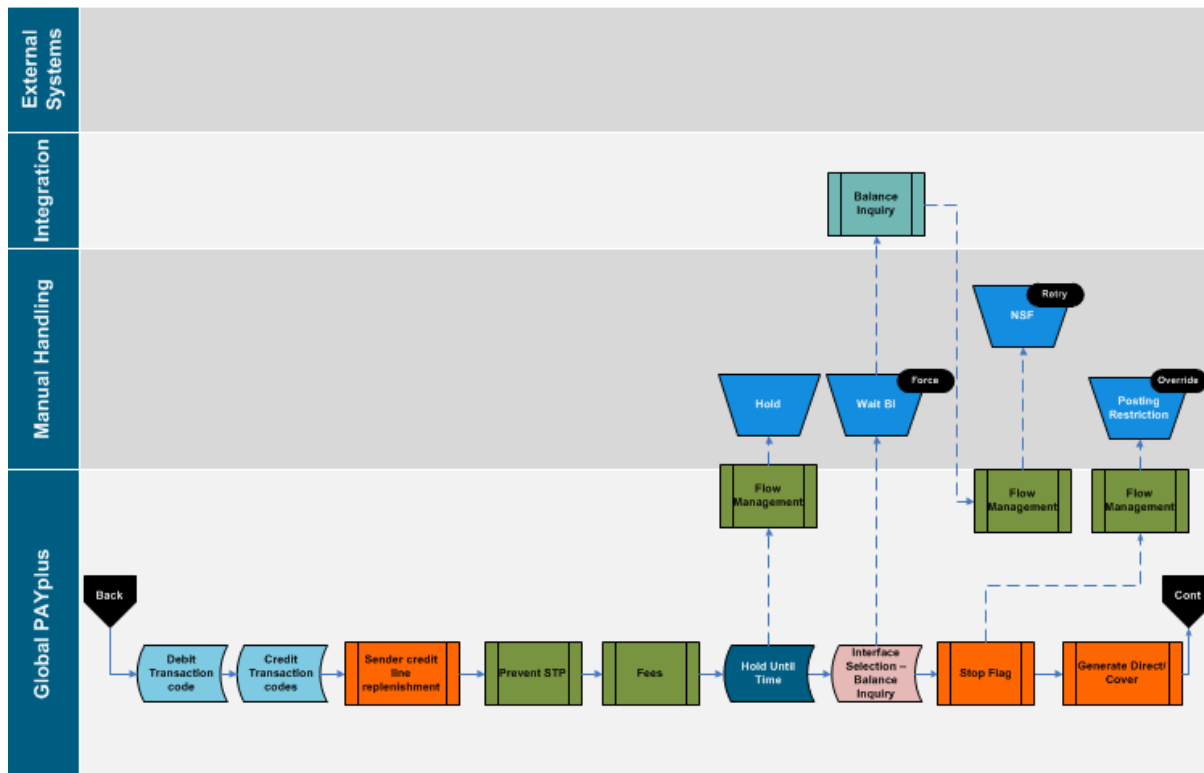
Transfer method is derived in following order:

- a. Operator provides the transfer method during manual create or repair.
- b. Transfer method selection rule, which is based on a set of payment attributes.
- c. Bank Routing – Destination bank's agent (may be defined for specific currency and message type) using Standard Settlement Institution (SSI) directory. This directory can be defined at global level in a multi-office environment.
- d. Transfer Method profile, which is based on country, and currency combination.
- e. Override serial flag in Debit Party's Profile.
- f. Default Serial.

For more information, see GPP Business Guide Building Correspondent Chain.

3.6 Payment Execution

3.6.1 Payment Execution Workflow



3.6.2 Debit and Credit Transaction Codes

GPP provides rule based mechanism to assign the debit and credit transaction codes. The transaction codes can be set based on various payment attributes, for example, MOP, product code, currency. These transaction codes are used during posting.

3.6.3 Sender Credit Line Replenishment

When an incoming direct message is processed to Complete by applying the Sender Credit Line, then upon receipt of its cover, the credit line is replenished by the cover amount.

For more information, see GPP Business Guide Incoming Direct-Cover Processing.

3.6.4 Prevent STP

GPP provides a mechanism to attach special instructions to a specific payment. Payments with special instructions attached can be routed to specific manual queues for manual handling. Multiple special instructions can be attached to a single payment.

GPP also supports validation rules which impose customized validations on certain types of payment. An authorized user must fix the payment in order for GPP to further process the payment. GPP continues the payment processing until all validations applicable for the given messages are passed. There is no override allowed for the validation rule.

For more information, see GPP Business Guide Special Processing.

3.6.5 Fees

GPP enables a financial institution to apply fees and charges for each transaction during the transaction processing.

GPP Fee service involves:

- Waiving or skipping fees for specific payment.
- Finding relevant fee types, for example, cable charges, commission, and agent fees.
- Finding Fee Formula Selection rules to calculate the charges. GPP supports a charges calculation based on fixed fees, percentage fees. It also supports the tiered pricing structure.
- Determining the fee account from which the charges are to be deducted (can be different than the main Dr/Cr account).
- Implementing fees, including fees calculation and validations.

GPP should be able to receive fee account number in CDB interface response

GPP should use this account number during message processing when posting fees.

After receiving the Fee account from CDB, when performing posting, fee posting will be done using the received customer fee account (even when there is a different fee account in account profile and different fee account in party profile).

In case fee account is not configured in GPP DB, GPP will ignore the received fee account and continue with the standard behavior of the flow (use the fee account from account profile).

For more information, see GPP Business Guide Pricing.

3.6.6 Hold Until Time

GPP can process the payment up to fees calculation and hold a particular type of transaction until a pre-defined time during the day. This is performed using the Timed Hold rule. At the selected time, the payment is automatically released from the hold queue and continues to be processed towards completion.

3.6.7 Balance Inquiry

GPP provides a standard interface to perform the balance inquiry on debit account before performing the posting step. GPP parks the payment in Wait BI queue until the response is received from the accounting system.

For single payments, GPP also supports the automatic retry mechanism after a specified interval when an insufficient funds response is received. A user can also trigger the retry of funds checking manually. The balance inquiry interface also supports the posting restriction functionality. If the stop flag/posting restriction is found, GPP sends the payment to Posting Restriction queue for manual handling.

For more details, see Balance Inquiry in the GPP Business Guide System Integration - Single Payments.

3.6.8 Stop Flag

Account stop flag check is performed on the S message account. The stop flag is either received from the balance inquiry response or setup in the Account profile.

3.6.9 Generate Direct/Cover

If transfer method of the payment is assigned as Direct/Cover then GPP generate Direct message using Generate Transaction mechanism and convert the existing payment as Cover payment.

3.6.10 Compliance Check

GPP performs a compliance request on the payment.

3.6.11 Warehouse

Payments whose processing date is not the same as, or later than the office business date are warehoused and moved to the Scheduled queue.

The Release Warehoused Payments task releases the payment from the Scheduled queue, when the processing date is the same as, or less than the office business date. It checks whether messages with the Schedule status for a specific office or MOP, can be released for further processing.

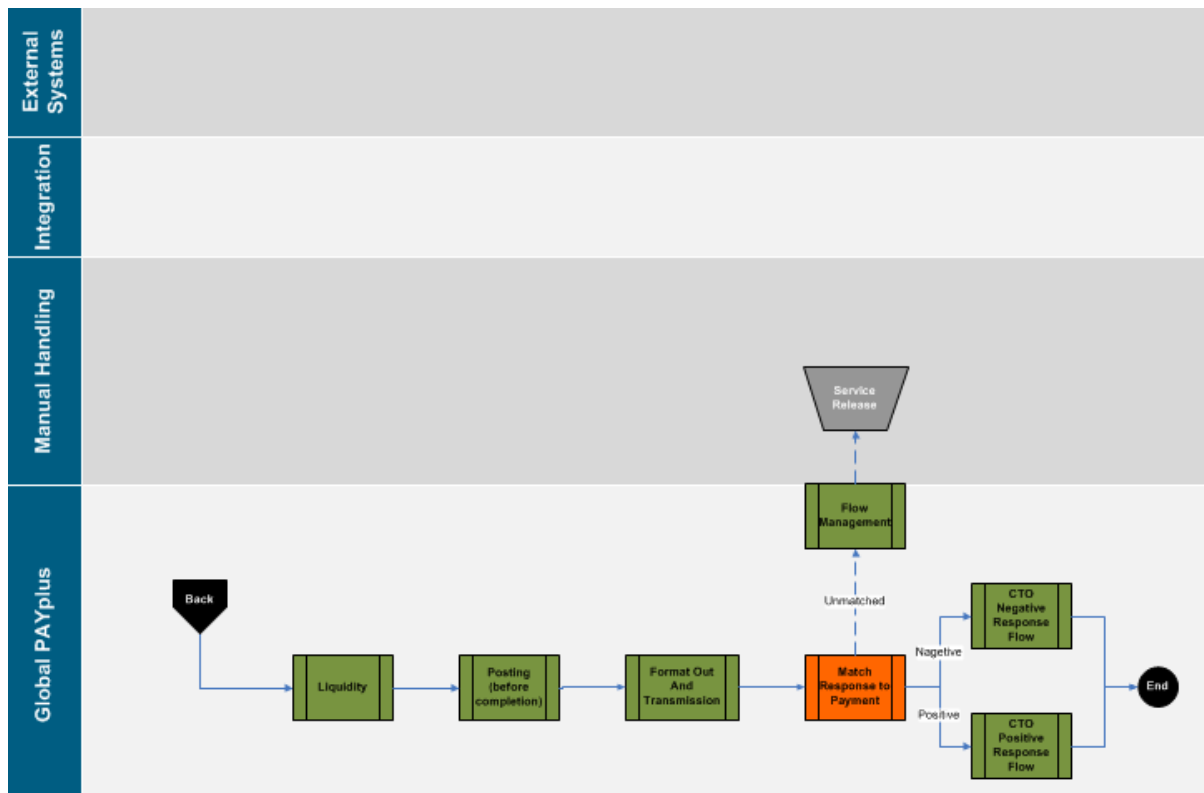
3.6.12 External FX

GPP performs currency conversion for the lump sum amount when the payment currency is different than the account currency.

GPP calculates conversions using a foreign exchange rate obtained from GPP, or using a rate from an external system.

3.7 Execution Individual

3.7.1 Execution Individual Workflow



3.7.2 Liquidity

In this step, GPP checks the liquidity status for clearing the settlement account.

For more information, see GPP Business Guide Liquidity & Risk Management

3.7.3 Posting (Before Completion)

GPP triggers the relevant interface to perform the required posting.

For more information, see GPP Business Guide Posting.

3.7.4 Format Out and Transmission

GPP generates the out payment.

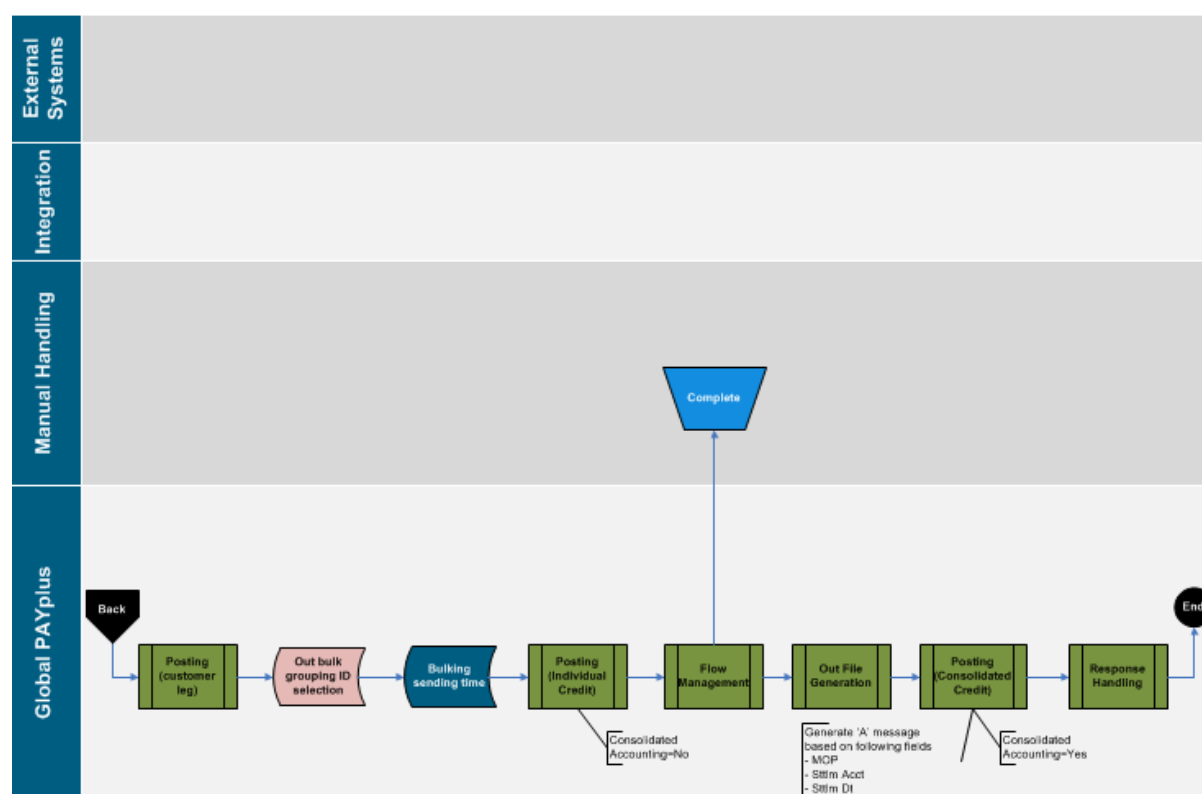
3.7.5 Match Response to Payment

GPP matches the response to the individual payment.

3.8 Execution Bulking

Execution Bulking is used when single payments are settled via a low value MOP. For example, when a channel initiated payment is below 10,000 and CT MOP is applied, the single payment goes into a file.

3.8.1 Execution Bulking Workflow



3.8.2 Posting (Customer Leg)

GPP performs the customer leg posting. The customer can be debited either in a lump sum or individually for each payment.

3.8.3 Out Bulk Grouping ID Selection

GPP invokes Out Bulk Grouping ID Selection rules to determine the group ID - Out data manipulation rule that GPP uses to build the outgoing file ID (OFID), and outgoing group ID (OGID).

- The OFID is used to place transactions into the relevant outgoing file.
- The OGID is used to place transactions with common attributes into relevant groups in the outgoing file.

When generating an outgoing customer file (pain.001 and pain.008), GPP determines:

- The relevant file into which the transaction should be placed using the OFID. The OFID determines, for example, if a file must only contain transactions of a single message type or value date.
- The relevant group header within the outgoing file into which the transaction should be placed using the OGID.

3.8.4 Bulking Sending Time

GPP invokes Bulking Sending Time rules to determine the appropriate time to generate and send outgoing files of payment messages. Each sending time defined in the Bulking profile must have a corresponding Bulking Sending Time rule.

This rule also enables authorized GPP users to define a last sending time for a specific message type.

Bulking profile can be configured to send out the relevant transaction upon incoming file processing. In this case, Bulking sending time rules are not evaluated and Out file generation is triggered once incoming file processing is completed (i.e. all transactions received in the incoming file are processed).

3.8.5 Posting (Individual Credit)

GPP triggers the relevant interface to perform required posting.

3.8.6 Out File Generation

GPP routes all individual transactions to the Complete queue and creates the A message for file generation.

GPP invokes Bulking Sending Time rules to determine the time to generate and send outgoing files of payments. Each sending time defined in the Bulking profile must have a corresponding Bulking Sending Time rule. This rule also enables authorized GPP users to define a last sending time for a specific message type.

GPP also enables authorized users to generate outgoing files containing groups of transactions that have successfully completed processing and send them to a CSM, regardless of the defined sending time.

3.8.7 Posting (Consolidated Credit)

GPP triggers the relevant interface to perform required posting.

3.8.8 Response Handling

GPP matches the response to the file.

3.9 Outward Returns

GPP provides a facility for a user to manually reject/return an inward payment (serial as well as direct/cover).

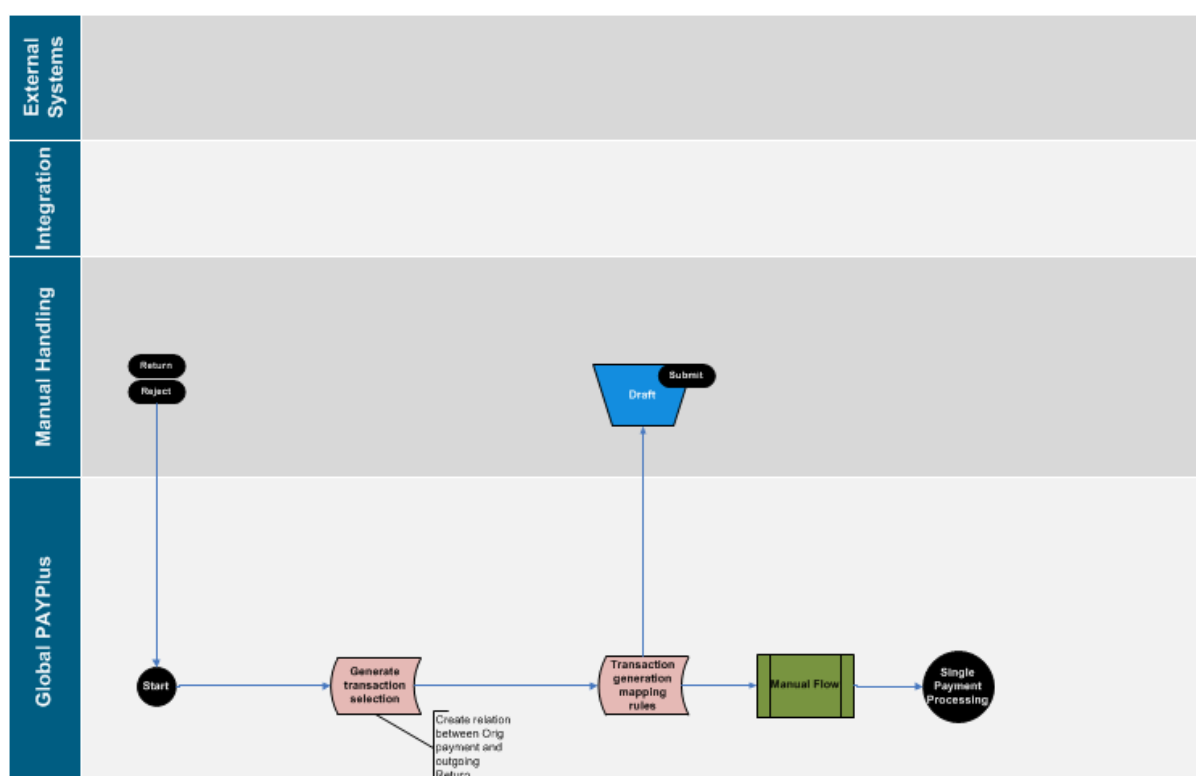
- Reject occurs when posting is not yet done (for example, Repair queue, Posting Restriction queue, Payments/Covers queue).
- Return occurs when posting has already been done (Complete queue). GPP provides a mechanism to generate a transaction return and map specific attributes for various types of returns. If posting has already been done, GPP also creates reverse posting to return the funds.

Fees can be configured for charging return payments (incoming as well as outgoing).

Note: Return matching is driven by a rule based mechanism which can be configured (using system configurations) for any type of payments as per the financial institution's requirement.

For more information, see GPP Business Guide SWIFT Reject Return.

3.9.1 Outward Returns Workflow



3.9.2 Generate Transaction

GPP generates the outgoing return payment upon click on Reject/Return button. It also establishes the links between the original payment and its outgoing return.

3.9.3 Transaction Generation Mapping Rules

GPP maps the specific field's values in the outgoing returns using transaction generation mapping rules mechanism. For example, populate the REJT, RETN codewords in F72 of an outgoing SWIFT return.

3.9.4 Manual Flow

GPP allows users to select the reject/return reason for an outgoing return.

3.10 Inward Returns

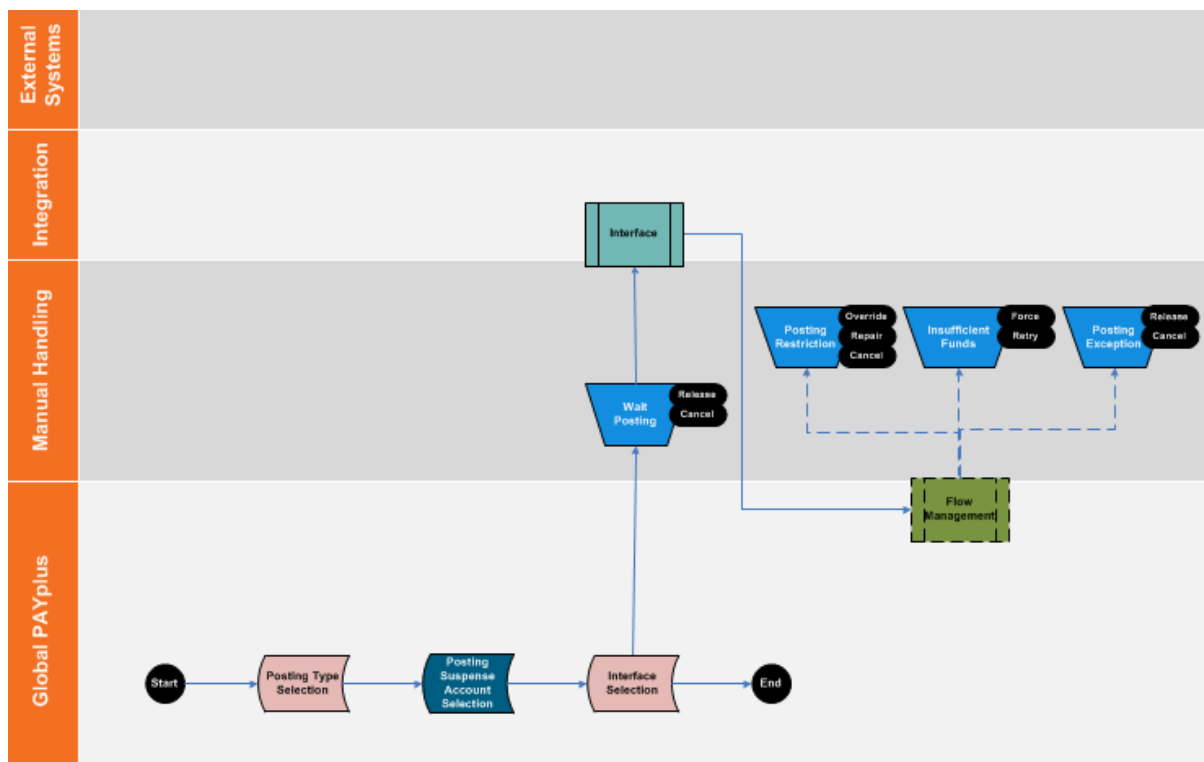
GPP processes inward returns when it receives returned payments for outgoing serial as well as direct/cover payments. GPP automatically matches these inward returns with the original outgoing payment. GPP supports the automatic matching facility for SWIFT as well as pacs payments.

Note: Return matching is driven by a rule based mechanism which can be configured (using system configurations) for any type of payments as per the financial institution's requirements.

GPP can be configured for compliance checking and add fee charges, if required for Incoming returns.

For more information, see GPP Business Guide SWIFT Reject Return.

3.11 Single Payments Posting



GPP posting logic supports various accounting models. It includes creation of posting entries within GPP and an invocation of an interface that includes some payment details and the posting entries details. The interface updates the bank's ledger books with relevant data, for example, debit/credit account, amount, currency, value date, and fees details (fee accounting and its P&L, FX balancing entries for cross book).

For more information, see GPP Business Guide Posting.

3.12 Advices

At the end of every payment processing flow, using flow management rules, GPP triggers the advising mechanism. There are two major types of advices:

- Electronic advices created by GPP (for example, MT900, and MT910)
- Electronic advices generated by a GPP interface

GPP can also be configured to generate acknowledgements to the partner systems (for example, receipt acknowledgment, and completion acknowledgement).

For more information, see GPP Business Guide Advices.

3.13 Acknowledgements & Confirmations

The acknowledgement and confirmation business services enables GPP to process the following types of notices:

- **Acknowledgement:** For each transmitted message, GPP can either receive a positive or negative acknowledgement message from the target entity.

- **Confirmation:** GPP supports both ISO as well as SWIFT message type based confirmation messages. SWIFTNet network enables a third party to return a confirmation or rejection message to the message sender.

Upon receiving either type of message, GPP matches the received message to the original message.

For more information, see GPP Business Guide Acknowledgements and Confirmation.

3.14 Daily Maintenance Activities

GPP is a multi-office system where all offices share the same application server but also require performing periodic maintenance activities according to the office local time. This means that the maintenance activities are done at the office local time and for the office data only.

At the end of each business day, GPP must engage in sequential start of day (SOD) activities in preparation for the following business day.

For more information about SOD and EOD procedures involved, see GPP Business Guide Daily maintenance Activities.

3.15 Industry Directory Uploads

GPP requires certain industry data as a reference during payment processing. GPP supports certain directories upload from SWIFTRef or from clearings like SEPA. SWIFTRef data includes upload of information, for example, SWIFT BICs, National Clearing Codes, RMA. Uploads from different clearing schemes are also supported to ensure the banks are participating banks (direct or indirect).

For more information on upload procedures, see GPP Business Guide Uploads.

3.16 Standing Order and Sweeps

GPP provides the ability to create templates to assist the user in creating payments that are made repeatedly, with few or no changes. The template functionality may specify that a template can be used to create payments on a pre-defined schedule. Templates can be created and saved, so that they can be used for different types of regular and/or predefined payments including Standing Orders and Sweeps.

GPP generates Standing Orders from a predefined template. In addition, using the Sweeps option in the Standing Orders functionality, the financial institution can ensure that a predefined amount, or the current debit account balance is not exceeded when payments are made.

For more information, see GPP Business Guide Standing order & Sweeps.

4 Manual Handling

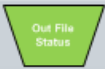













GPP supports straight through processing of payments. In certain scenario's, transactions may require manual intervention. GPP provides a user friendly interface that facilitates all manual handling activities.

For more information, see GPP Business Guide Manual Payment Handling.

Appendix A: Glossary

Term	Description
FI	Financial Institutions
GPP	Global PAYplus
HV	High Value Payments

Appendix B: Single Payments Workflow Legend

  	Message Status /Queue
	Interface
	Service
	Service (with an inner flow)
  	Rule (Business/System)
	Action button (from a queue)
 	Start/End/Previous/Next linkage points
	Flow connection (dashed = optional)
	Step is skipped when payment returns to workflow from manual queue



© **Finastra Limited**

All rights reserved

Registered in England & Wales

No. 01360027

Registered Office

4 Kingdom Street Paddington

London W2 6BD

