



Global PAYplus

# STP Validation

Business Guide

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## Version Control

Version	Summary of Changes
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2.0	Document updated for rebranding
3.0	Document rebranded to Finastra template

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# 1 Introduction

## 1.1 Overview

The STP Validation service helps to increase STP rates by providing a validation tool that validates payment attributes up front. For example, if a payment needs to be sent from the USA to the UK, then the final beneficiary account number (not an IBAN) must be either 8 or 14 characters long. If it is not, then only after the payment reaches the UK will it return because it is unable to identify the final beneficiary.

The STP Validation service makes it possible to specify an STP Validation profile that handles unique validations for payments that are going to the UK and to generate an error to the user before the message is submitted.

This document only handles the functionality around STP Validation.

## 1.2 Target Audience

This business guide describes the STP Validation workflow. It is designed for business analysts and system administrators who need to set up and configure this feature. It is also of value to anyone who wants to know more about how this feature is implemented.

# 2 Processing Description

The STP Validation service can be activated in two different modes:

- **Full mode:** Where the payment is fully validated against all of the Validation profile fields.
- **Partial mode:** Where the service receives a list of payment fields that need to be validated against the payment.

The service follows the following processing steps:

## 2.1 Define Payment Type

If payment type is provided along with the service inputs (P\_PAYMENT\_TP is not null) then skip this step.

If it is not provided, then define message type by assessing the Payment Type Selection business rules. If no matching rule is found, the service fails with the relevant error, for example.

## 2.2 Enrich Payment

With Payment Type profile in hand, if an enrichment mapping rule is defined, execute it (i.e. it allows message data).

## 2.3 STP Validation Profile Selection

Using payment type, assess STP Rules Selection business rules to define a matching STP validation profile.

Perform payment attribute enrichment/manipulation by assessing the associated manipulation profile (STP field mapping selection rules).

## 2.4 STP Profile Fields Validation

1. Using STP Validation profile, assess each one of the profile validation attributes.
2. When an error occurs, if it is a soft error STP processing continues. If it is a hard error, STP processing stops.
3. If no error is found during the profile fields' validation, continue with the following validation.

## 2.5 Fields Validation Business Rules

1. This step allows an additional level of validation.
2. Assess STP Field Validation business rules.
3. With the rule engine capabilities, it is possible to specify unique and advance validations. For example, it is possible to validate the length of the debtor account number and ensure it is exactly 8 characters or 25.

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Note: When an error occurs, the Treat soft errors as hard errors check box in the debit Party profile defines how to treat the errors and enables soft errors to be treated as hard errors.

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## 3 Manual Handling (N/A)

## 4 System Configuration and Business Setup

### 4.1 Business Setup

This section describes the solution building blocks that are described and used by the processing flow description.

#### 4.1.1 System Parameters

Name	Description
SUPPORT_STP_RULE	<p>Specifies whether to assess the STP validation service for the processing office.</p> <ul style="list-style-type: none"><li>• When set to Yes, the STP validation is being assessed at the beginning of the processing flow (after basic properties service).</li><li>• If it is set to No, then the service is skipped (default)</li></ul>

#### 4.1.2 Profiles

These are the details of the required setup in GPP profiles for the STP Validation.

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Note: For a detailed description of all the fields in the profiles, see GPP Online Help.

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#### 4.1.3 Parties

The Parties profile maintains customer data. Customers can be financial institutions with which the office has a relationship or a private (non-financial) customer. The Parties profile defines bank information within the SWIFT or similar payment network. In this context, a party can include any financial institution in the payment network, including your institution.

These are the specific attributes that need to be defined in the Parties profile for STP Validation.

Field	Description
Treat soft errors as hard errors	<p>Message errors are divided into soft and hard errors. Soft errors are not critical and allow payment processing to continue. Hard errors stop payment processing and send the payment to the Repair queue. If selected, a flag is set to "treat soft errors as hard errors".</p> <p>Select to treat soft errors as hard errors.</p>

##### 4.1.3.1 Message STP Validation

The Message STP Validation profile is used by the STP rules as part of the STP Validation service. The purpose of the service is to increase STP rates by providing a tool that performs certain payment validations (different validation profiles are selected and performed for different payments).

The Message STP Validation profile is a set of payment attributes and a list of validations that need to be performed on these attributes. Once a validation check fails, a proper error is shown to the user and the service fails. The profile also enables the creation of validation rules (robust validations) that ensure, for example, that certain attributes exist, depending on another attribute.

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**Note:** The Insert STP Rule Fields task is used periodically to amend the profile message attribute grid.

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In addition, the user can click on these buttons to perform the relevant action:

- **STP Validation:** Open the Business Rule infrastructure to set up a rule that is attached to the profile and allows additional and complex validations for messages.
- **STP Manipulation:** Open the Manipulation Rules infrastructure to allow creation of message manipulation (given that all validations were passed).
- **STP Fields:** Open the Message STP Field Rule infrastructure to change the attributes of fields that are not automatically filled, in the Message STP Validation Profile. In the Message STP Field Rule page, the user also can click the Field Navigation button to setup a rule that is attached to OBJECT\_UID = UID\_MESSAGE\_STP\_FIELD\_RULE, RuleType = FieldSTPValidation, Rule Sub Type = FIELD\_LOGICAL\_ID.

#### 4.1.3.2 Character Set

The Character Set profile is used to define the characters that can be used in a specific field. For example, the field Beneficiary Account ID can be configured to only allow numeric characters.

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**Note:** This profile can be activated as part of an external STP validation service and also to validate the Dr and Cr accounts.

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Term	Code	Value
Character set indicator	A	All
Character set indicator	V	Valid
Character set indicator	I	Invalid
Character set type	V	Account Valid
Character set type	A	Accents
Character set type	R	Restricted
Character set type	I	Account Invalid
Character set type	P	Printable
Character set type	S	Standard

#### 4.1.3.3 Payment Type

The Payment Types profile is used to define a code to categorize the payment with a business rule. When Payment Type information is not specified, such as with a non-manually created payment, GPP assesses the defined business rule.

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**Note:** This profile is activated as part of an external service and does not take place in the normal payment processing flow.

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These are the specific attributes that need to be defined in the Payment Type profile for STP Validation.

Field Name	Description
Mapping Rule	Provides the ability to manipulate some payment attributes given the selected payment type. The mapping rule holds the manipulation rules that need to be assessed.

#### 4.1.3.4 Internal Errors and Audit

The Internal Errors and Audit profile enables the manual creation of errors and audit by system users so that these errors take effect as part of the STP validation service. A static data profile is created to support the ability to create and maintain these message error entries.

These are the specific attributes that need to be defined in the Internal Errors and Audit profile for STP Validation.

Area #	Field Name	Description
	Code	Automatically generated code
1.	Description	An error/audit description that explains the error that occurred. This field cannot be left blank.
2.	Entry type: Message Error	Defines whether the entry should be set for message error. Default is checked.
3.	Entry type: Audit trail	Check box. Defines whether the entry should be set for audit. Default is unchecked.
4.	Entry type: Error log	Check box. Defines whether the entry should be set for system error log. Default is unchecked.
5.	Notes	A textbox that displays the additional error in the error template so that it would be more understandable. It is intended for the user who created the entry. This is not shown on the message error/audit or log.
6.	Corrective action	A textbox that displays the template corrective actions for the user who created the entry.
7.	Category	Select from drop-down list of values.
8.	Severity	Select a number from the drop-down list, where 0 represents not severe, to 9 representing severe.
9.	Fault	Radio button to select between: <ul style="list-style-type: none"><li>• Our</li><li>• Their</li><li>• N/A</li></ul>

#### 4.1.4 Business Rules

##### 4.1.4.1 Payment Type Selection

###### Description

Payment Type is a code that helps categorize the payment into different business offerings the bank provides. The Payment Type business rule defines a code for every payment. This rule is assessed whenever the Payment type information is not specified (usually for non-manually created payments).

###### Rule Action

Payment Type code (selection from Payment Type profile).

###### Rule Attachment

Payment Type rules are attached to a global office. Multiple rules may be attached.

The rules are evaluated in their attachment order. The first fitting rule is used.



## **Example**

If originating country code = JP (Japan) and Destination country code = JP

and

Ordering party residency is true and receiving party residency is true then Payment type code is ZENGIN

### **4.1.4.2 STP Rules Selection**

This rule is evaluated only when the Validations are to be applied on the office level. However, there are also MOP STP Profile Selection and Source MOP STP Profile Selection which are attached to target and source MOPs (accordingly), and also choose an STP validation profile (via their action).

#### **Description**

STP Validation selection defines the correct setup of validations that need to be applied over the message. The business rule defines an STP Validation profile.

#### **Rule Action**

STP validation profile.

Additionally, the action STOP applies and means that there would be no STP validation for the payment.

#### **Rule Attachment**

Global office only. Multiple rules may be attached.

The rules are evaluated in their attachment order. The first fitting rule is used.

### **4.1.4.3 Message STP Validation**

#### **Description**

Enables the creation of a set of additional validations that are not covered by the simple STP validation profiles. These validations are based on the rule engine capabilities and allow variety of endless different validations

#### **Rule Action**

Internal errors and audit profile where CATEGORYCODE is set to code 4

Rule sub action defines whether the error should be considered as a soft or hard error.

When it is set as soft error, the validation continues although an error is created and when it is set to hard error the validation fails.

#### **Rule Attachment**

All matching rules are being picked up. Rules are attached to a Message STP Validation profile.

### **4.1.4.4 STP Mapping Selection**

#### **Description**

Enables the selection of manipulation profile. Allows robust payment manipulation capability.

#### **Rule Action**

The rule action is an STP mapping rule (Data Manipulation).

#### Rule Attachment

Rule are attached to a Message STP profile.

##### 4.1.4.5 STP Field Validation

#### Description

Enables an advanced STP validation criteria setup, and definition of the relevant error that is returned if the rule is caught. For example, this feature allows for the set-up of a UK creditor account number to be exactly 8 or 14 characters long and if it is not set to that length, a user-defined error is returned (see rule action).

Note that the rule sub-action is the STP validation profile associated message attribute, for example X\_CDTR\_ACCT\_ID for the UK example.

#### Rule Action

Internal errors and audit profile where CATEGORYCODE is set to code 4

Rule sub action defines whether the error should be considered as a soft or hard error.

When it is set as soft error, the validation continues although an error is created and when it is set to hard error the validation fails.

#### Rule Attachment

All matching rules are picked up.

Rules are attached at the Office level Attached to an STP Field Rule.

### 4.1.5 Statuses (N/A)

### 4.1.6 Tasks

#### 4.1.6.1 Insert STP Rule Fields

Amends the list of message attributes (taken from LOGICAL FIELDS table and marked as Available for external UI) that are shown in STP validation profile.

### 4.1.7 Access Class Entitlements

The following Access Class Entitlements I should be added:

Class	Selection
Access	Profiles: STP validation, character set and payment types Rules: Payment type selection & STP validation

### 4.1.8 Message Attributes

Every attribute in LOGICAL FIELDS system table that is set as AVAILABLE\_FOR\_EXTERNAL\_UI = 1 (or -1) would be a possible attribute for STP validation profile.

Field ID	Name	Default	Type
P_PAYMENT_TP	Payment type	[Empty]	String

### 4.1.9 Errors

These are examples of system errors defined in GPP.

Code	Description
60060	Value [Field value] of STP field [STP field alias] does not exist in following list: [Related content source list]
60061	Validation failed for STP field [STP field alias] Rule action: [Rule action]
60046	No payment type was selected
60047	Payment type [Payment type] is not defined in the system
60048	No STP rule was defined for payment type [Payment type]
60049	Field [Field logical ID] is not defined in the system
60050	STP rule for the following field is not provided: [Field logical ID]
60051	STP field [STP field alias] is marked as mandatory but has no value
60052	STP field [STP field alias] is marked as hidden but has a value in it
60053	Length of STP field [STP field alias] value is less than defined minimum length: [Defined min length]
60054	Length of STP field [STP field alias] value is greater than defined maximum length: [Defined max length]
60055	Precision of STP field [STP field alias] value is less than defined field precision: [Defined field precision]
60056	Value of STP field [STP field alias] value is less than defined minimum value: [Defined min value]
60057	Value of STP field [STP field alias] value is greater than defined maximum value: [Defined max value]
60058	No char sets can be derived for STP field [STP field alias]. MESSAGE_STP_FIELD_RULE UID: [MESSAGE_STP_FIELD_RULE UID]
28560	A generic error has occurred while trying to perform this action

## 4.2 Recommended Setup

### 4.2.1 Profile Setup

#### 4.2.1.1 Payment Type

1. Create a Payment Type profile.
2. For the relevant profiles, define a manipulation profile that allows the enrichment of the payment attributes.

#### 4.2.1.2 Party Profile

Define the relevant parties that require Treat soft errors as hard errors

#### 4.2.1.3 Character Set

Define the list of relevant character set validations

#### 4.2.1.4 Internal Errors and Audit

Define the specific relevant errors that are going to be initiated by the STP Field Validation business rule action

#### **4.2.1.5 STP Profile**

1. Ensure the list of attributes for validations are correct.
2. Define STP validation profile.
3. Define the validations for each attribute.
4. Where applicable, define the STP manipulation set of enrichments.
5. Define STP validation.

---

Note: STP validation is considered an object where different manipulations can be set and attached to it.

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6. Define the different profiles that are required for validation.

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Note: Remember that you can use the same profile name as the payment type to reduce the setup effort.

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#### **4.2.2 Business Rules**

1. Define the required business rules for payment type selection.
2. Define the STP rules selection business rules so that the profile is stored.

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Note: There is no need to create business rule if the STP Validation profile has the same name as the Payment Type profile

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3. Attach the rule to the office.
4. Create the specific STP validation business rules that are associated to a field in the STP profile.

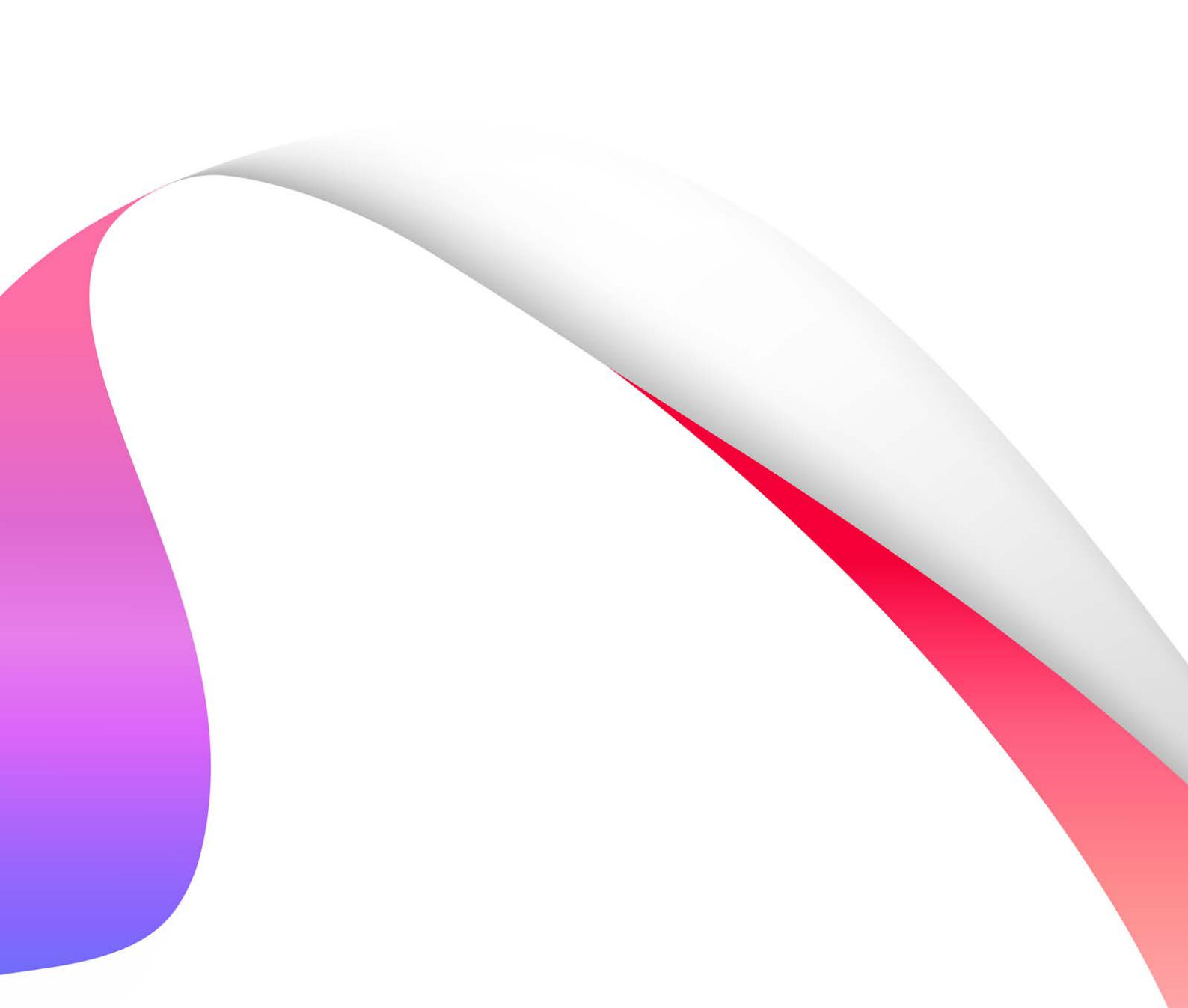
## **5 Message Data**

### **5.1 Message Attributes (N/A)**

### **5.2 Errors (N/A)**

## Appendix A: Glossary

Term	Description
GPP	Global PAYplus
STP	Straight Through Processing



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