FINASTRA

Global PAYplus

Database Replication

Business Guide

Product Version: 4.5
Catalog ID: GPP4.5-00-B41-07-201511

Copyright

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

Version	Date	Summary of Changes
1.0		Document Created
2.0	Mar 24, 2015	Added JOURNALMESSAGES to the File Processing Tables
3.0	Mar 31, 2015	Added BUSINESS_AREA to the Master Static Data
4.0	Apr 24, 2015	Added PROFILE_UPDATE, PROFILE_UPDATE_COMPLEX, PROFILE_UPDATE_DETAILS tables to the Master Static Data
5.0	May 27, 2015	Added BATCH_SUMMARY and ERRORLOG tables to the Master Static Data
5.1	Jun 04, 2015	Added MSG_STMT_INF table to the Message Ancillary System Replication
5.2	Jul 14, 2015	Added the OUT_FILE_BUFFERS table to the File Processing Tables
6.0	Aug 26, 2015	Added BPROFILE, MPROFILE, QPROFILE, APROFILE, PRULE_TYPE_LEVEL_PROFILE, PRULE_TYPE_PROFILES to the Users and Permissions
7.0	Nov 2015	Updated for rebranding
8.0	August 2018	Document rebranded to Finastra template

Table of Contents

1 Introduction

The Database Replication is an add-on to Global PAYplus (GPP).

This functionality enables financial institutions to replicate the database from the source database (OLTP – Online Transaction Processing) to the target database using the Golden Gate tool of Oracle. The financial institutions can use the target database as a reporting database and create reports on the payment transactions domain.

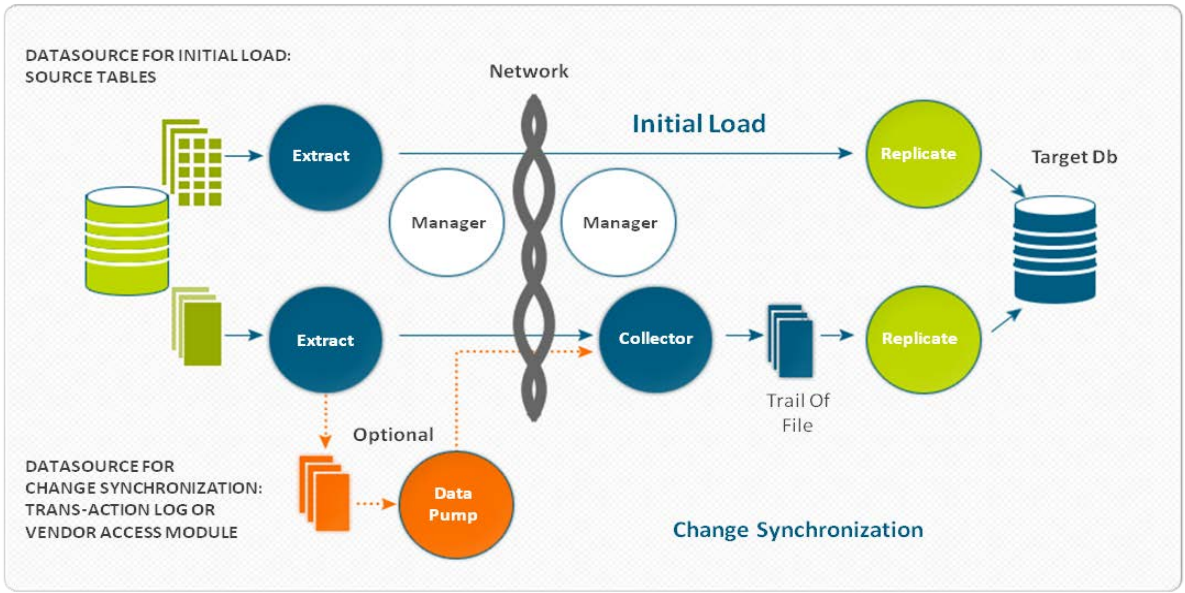
1.1 Oracle Golden Gate Tool for Replication

Oracle Golden Gate (OGG) is a comprehensive software package for enabling the replication of data in heterogeneous data environments. The product set enables high availability solutions, real-time data integration, transactional change data capture, data replication, transformations, and verification between operational and analytical enterprise systems.

Oracle Golden Gate:

- Uses Oracle Redo Logs - Requiring no additional transaction processing performance overhead
- Has a built-in mechanism for parallel processing that enables scale-up and minimizes latency
- Enables high availability replication upon network failure
- Provides monitoring capabilities via the Oracle Golden Gate Monitor
- Captures and replicates data manipulation language (DML) as well as data definition language (DDL) operations
- Invokes D+H dynamic transformation module for transforming OLTP/XML to OLAP/relational schema

This image from Oracle, represents the change synchronization using Oracle Golden Gate.



1.2 Oracle Golden Gate Configuration & Data Transformation

The database replication solution includes a D+H proprietary OGG configuration and DB stored procedures that perform the following:

- Data transformation: Performs a conversion between OLTP structure and Reporting scheme structure, including, but not limited to converting GPP XML to relational data model.
- Indexing: The target database (reporting scheme) is indexed to optimize the execution of long running and complex queries.
- Dynamic structure: Automatically replicates database scheme changes driven by data updates in the OLTP database, including:
  - Newly added Message custom fields
  - Extracting additional message fields, new MINF columns and logical fields stored in the XML. Note: Flattening additional message logical fields from the XML to MINF table columns is not automatic.
- Multiple data capture processes are defined: Each one covers a different set of data elements.

Attributes of the replication process:

- Compatibility: The replicated database remains fully aligned with GPP operational database from one release to the next (including structure changes being reflected in both databases).
- Extendibility: Ability to extend replicated database scheme with additional data elements to existing tables without changing the OGG component.

1.3 Monitoring

- Monitoring of the replication process is performed using OGG Monitor (Oracle Golden Gate Monitor product, additional Oracle add-on tools can be used).
- Errors encountered during replication are captured in DB logs

2 Processing

2.1 Replication Workflow

The configuration of Oracle golden gate includes several independent replication processes for replication of:

- Reference (static) data
- Transaction data
- Non transaction dynamic data

2.1.1 Reference (Static Data Profiles) Replication

Reference data replication process is replicating the static data profile tables from the active database into the reporting database.

The replication processes copy the information in tables as is, in the current structure including column names, foreign keys and constraints.

Not in Use columns - there are columns in some of the profile tables that are no longer being used by GPP.

The replicated tables are:

- Master Static Data

- Dynamic Static Data
- Users and Permissions
- File Processing Tables

2.1.1.1 Master Static Data

Table Name	Description
ACCOUNTS	Account attributes.
ACCOUNT_CAPS	Stores the different CAP figures per account to be used when evaluating sufficient liquidity on outgoing payments to a Nostro/Settlement account, prior to the release of the payment.
ACCOUNT_GROUP_MEMBERS	Stores the list of accounts belonging to a certain group of accounts (as in ACCOUNT_GROUPS).
ACCOUNT_GROUPS	Each entry in this table defines a group of accounts.
BANDS	Bands profile attributes. Holds the setup of the different bands used to prevent outgoing payments from being released based on their amount.
BANKS	Stores the Local Office attributes (bank branch(s) that have GPP).
BATCH_SUMMARY	Stores the entry for each batch received in a file. GPP continues to update the batch summary record as the batch/file continues processing.
BUSINESS_AREA	Business Areas and their descriptions
CUSTOMRS	Other financial institutions and customers attributes. Maintains detailed customer, other financial institutions, and branch information.
CUTOFF_PROFILE	Stores the Cutoff Time Profiles.
DEPARTMENT	Stores the departments by the system (messages are assigned to a department).
ERRORLOG	Records system errors that occur in the PAYplus RTGS GUI and modules. For example, the TRC, CPA keeps errors that are not payment related, for example Select statements that failed.
FEE_TYPES	Stores fee type profiles.
MANDATE	Mandate attributes.
MOP	Stores the Method of Payment attributes.
PARTY_LIMITS	Party Limits profile attributes.
POL_DEFINITION	Stores the senders that are subject to POL checking and the POL amount and currency.
PRODUCT	Records the different products used by the system (messages are assigned to a product) and their descriptions.
PROFILE_UPDATE	Audit/approval information on Profile Changes. It stores the information about a change activity that was done on a profile including the Initiator and approver id and the relevant time stamps.
PROFILE_UPDATE_COMPLEX	Extension of the above (PROFILE_UPDATE) for special cases like changes to the order of rule attachment to an object.

Table Name	Description
PROFILE_UPDATE_DETAILS	Audit/Approval of additional information on profile changes where the profile is composed of more than one table. Capture per field, the old and the new value that was changed with an update activity. These changes are displayed to the approver before the change is approved and are displayed on the profile page.

2.1.1.2 Dynamic Static Data

Table Name	Description
ACCOUNT_DAILY_BALANCES	Stores the balance information for the position keeping accounts. Each entry includes the different balances available per a specific account and a specific date.
DYNAMIC_PARTY_LIMIT	Dynamic data for validation and accumulation of party limits. Stores the primary identifier of the Party for each party quoted in a specific message, as available in the GPP database.
EXCHRATE_BU	Foreign exchange rates
EXCHRATE_RTR	Real time FX interface.
POL_DYNAMIC	Maintains the accumulated amounts against the POL of each Sender per value date.

2.1.1.3 Users and Permissions

Table Name	Description
ACCESS_LEVEL_PROFILE	Definition of Access Levels to menus and sub menus and their hierarchy.
ALERT_LEVEL_PROFILE	Stores the security access for alerts.
DEPARTMENT_LEVEL_PROFILE	Stores the security access for departments.
MESSAGE_LEVEL_PROFILE	Stores the security access for Message types.
QUEUE_LEVEL_PROFILE	Stores the security access for queues.
USERS	Stores the usernames that can log in to GPP system and their attributes. Maintains detailed information and security levels for User Level profiles.
USER_ENTITLEMENT	Stores the user entitlement profile names that groups the different level profiles in the system.
BPROFILE	Holds all the departments' types that are being included under a specific department level profile and their read/write privileges. Available departments for a specific category. A user with this profile will be able to view/update any profile within his APROFILE with Department (a column in the profile) within the BPROFILE list of Departments.
MPROFILE	Holds all the message types that are being included under a specific message level profile and their read/write privileges.
QPROFILE	Holds all the queue types that are being included under a specific queue level profile and their read/write privileges.

Table Name	Description
APROFILE	Holds all the access rights for menus and all access to GPP that are being included under a specific access level profile and their read/write privileges. Maintains Access Level security profiles. (GUI only)Access profile. All of the access levels for a specific role. This is an associative file. Updated through GUI. Background does not touch.
PRULE_TYPE_LEVEL_PROFILE	Process rule types profile level definition.
PRULE_TYPE_PROFILES	Process rule types profiles definition.

2.1.1.4 File Processing Tables

Table Name	Description
FILE_SUMMARY	Defines all attributes for an incoming and outgoing mass payment files.
JOURNALMESSAGES	A list of error messages and their properties (description, severity, etc.) for the journal.
OUT_FILE_BUFFERS	This table accumulates payments that are based on the bulking profile. Once the sending time for the payment is reached, the outgoing file is generated (based on the transactions accumulated). Once the ICF (input credit file) is generated, the Out File ID is generated for the same and the record gets updated in this table.

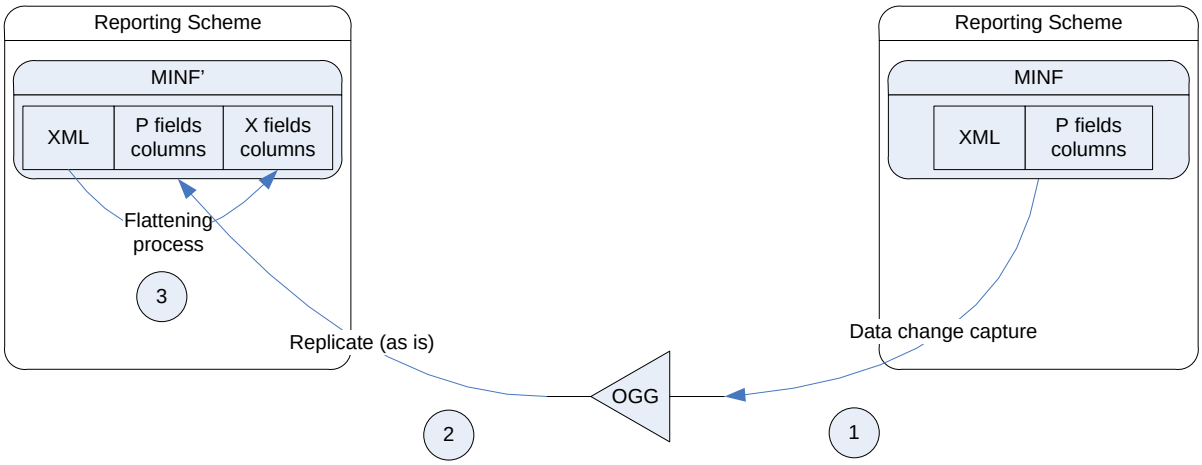
2.1.2 Transaction Data Replication

Transaction data replication is comprised of these major steps:

- Replicating the transaction table (MINF) from the OLTP scheme to the replicated scheme
- Replicating transaction ancillary tables
- Flattening the transaction data from XML structure to relational structure

2.1.2.1 MINF Table Replication

The MINF table stores the transaction information.



2.1.2.1.1 Ignoring Transaction Deletion

In order to support different transaction retention periods in the OLTP scheme and the replicated scheme, the replication process refrains from applying transaction deletion in the OLTP scheme to the replicated scheme.

2.1.2.1.2 MINF Fields Replication

For a list of fields in the MINF table which can be replicated, see Appendix A: Replicated Fields in MINF DB Table.

2.1.2.2 Message Ancillary System Replication

The following message ancillary systems are replicated as is:

Table Name	Description
MESSAGERATES	Stores information on rates used for each specific message, including forward contracts and dealers rates.
MESSAGE_EXTERNAL_INTERACTION	Records the information, including the actual text, of the different Interface Requests and Interface Responses relating to each specific message, if such logging is configured to be required per the specific interface.
MFAMILY	Stores the link and relation types between additional messages to the original message.
MSGERR	Records errors relating to specific messages.
MSGNOTES	Records notes attached to messages.
MSG_FEES	Stores the fees allocated for the message.
MSG_PARTIES	Stores the primary identifier of the Party for each party quoted in a specific message, as available in the GPP database.
MSG_POSTING	Stores all the posting entries created for a specific payment.
MSG_POS_FIGURES	Stores the current position figures assignments per message.
MSG_RULE_LOG	Contains log of user defined rules that were applied to the message.
MSG_SPECIAL_INSTRUCTIONS	Stores all special instructions attached to a specific message.
MSG_STMT_INF	Stores reporting data for Outward DD messages.
MSG_STOP_FLAGS	Maintains the stop flags attached to messages.
NEWJOURNAL	Records audit trail lines relating to each specific message.
TEMPLATE_UNCHANGED_FIELDS	Template unchanged fields.

2.1.2.3 Flattening Process

Logical fields which are stored in the OLTP scheme as XML tags in **MINF.xml_msg** and **MINF.xml_orig_msg** columns are captured and their value are populated to additional columns in the replicated MINF table. The assigned column names are the logical fields IDs (**logical_fields.field_logical_id**)

- Which logical fields are flattened?

  As there is a DB imposed limitation on the possible number of columns allowed for a DB table (999), not all logical fields are flattened to a relational structure.

  The following criterion defines the logical fields that are flattened by default:

- XML logical fields - stored in the XML columns of MINF ('X' and 'OX' fields - **logical_fields.location_type** in { XML, ORIG_XML})
- Single occurrence logical fields that contain data and are not parent tags (**logical_fields.field_xml_type** not in { DETACHED_MULTI, DOCUMENT, GROUP, MULTI
- Made available for lists (**logical_fields.available_for_qview** = 1)

- Capturing the value of flattened logical fields

  The location (XML tag and path) in the XML of the same logical field is not necessarily the same for all message types.

  The message type of the transaction is specified in MINF.p_msg_type and MINF.p_orig_msg_type.

  The location is defined in the **logical_fields_xpath** table.

  When retrieving the value from the XML, the tag and path is retrieved from logical_fields_xpath by matching:

  - logical_fields.field_logical_id to logical_fields_xpath.field_logical_id
  - MINF.p_msg_type to logical_fields_xpath.xml_type or
  - MINF.p_orig_msg_type to logical_fields_xpath.xml_type
  - XML type version of the XML and XML type version of the orig XML are also taken into account

2.1.2.4 Message Custom Fields Replication

- Message custom fields meta data is stored in the OLTP scheme is a shared table (UDFS) for profile custom fields and message custom fields. Message custom field is indicated by custom field designated usage for message and no association with a specific profile (UDFS.USAGE_TYPE = M and UDFS.PROFILE_ID is null).
- Message custom fields' data is stored in the XML extension.
- Making message custom fields available to reports in the replicated scheme, involves flattening process.
- The flattening process creates a column in MINF table for each message custom field
- The column name is the custom field identifier as defined in custom field meta data table (UDFS.UDF_ID)
- The content is retrieved from the XML content in MINF.XML_MSG column from the following path: *FndtMsg\Msg\Extn\UserDefinedFields*

2.2 Initial Data Load

When the replication solution is implemented, there is a need for an initial replication process to bring the data in the replicated scheme to be in line with the data in the OLTP.

2.3 Scheme Changes Workflow

Whenever a scheme change is performed on the OLTP scheme it is possible that the scheme change has to be cascaded to the replication scheme.

These scheme changes can be triggered as a result of:

- Adding a logical field with replication flattening flag turned on - a column for this logical field should be added to the MINF table
- Updating a logical field – turning on replication flattening flag – a column for this logical field should be added to the MINF table

- Adding a message custom field – column should be added to MINF table for the custom field
- Adding a profile field – a column in the corresponding profile table should be added, including conversion/population script when applicable
- Amending a column in a profile – conversion script should be applied on the corresponding profile table
- In very rare case of column removal this scheme change is also be performed as part of scheme update

Most of these change triggers are a result of a version upgrade, therefore the scheme changes are applied on the replication scheme as part of the version upgrade.

Changes to profile custom field and to message custom field may be performed out of context of a version upgrade. Therefore, an additional mechanism for cascading these scheme changes to the replication scheme is applied.

2.4 Guidelines for Replicated Scheme Changes

The primary use of the replicated scheme is expected to be the generation of reports.

The financial institution may require to perform scheme changes to the replicated scheme to better support report development and generation.

Adhering to the following guidelines allows D+H to support and upgrade the replication solution.

2.4.1 Changes to Replicated Tables

The financial institutions can perform the following changes to replicated tables:

- Add indices
- Add triggers to affect non replicated tables. The financial institutions should not add triggers that will manipulate data in the replicated tables.

Note: The financial institutions must not make any changes to the definition of the replicated tables, columns and keys. Any change is required to be coordinated with D+H, as it may have an impact on the replication process.

2.4.2 Additional Tables and Views

The financial institutions can:

- Create additional tables in the replicated scheme and populate them with data from external systems. However, conflicts with existing DB elements must be avoided.
- Create additional views querying over the replicated tables.

3 Manual Handling (N/A)

4 System Configuration and Business Setup (N/A)

5 Message Data (N/A)

Appendix A: Replicated Fields in MINF DB Table

This is a list of the fields in the MINF database table that can be replicated.

Field Name	Description
P_DELIVERY_INDEX	Contains interface reference via which the message was received or sent. For FED and CHIPS this will be the direction and LTERM and PN respectively. Multiples should be separated by ^
P_EXT_REF3	Accounting reference 3. This field stores references created by external systems for incoming messages. For FED it will contain the OMAD; for CHIPS, the OSN.
P_CDTR_AGT_BIC_2AND	Cdtr agt BIC (indexed) copy of X_CDTR_AGT_BIC_2AND.
P_TX_ID	Unique identification, as assigned by a sending party, to unambiguously identify the payment information group within the message
P_MSG_STS_CHG_DT	Message Status Changed Office Date
P_FINAL_CUTOFF_TM_SYS	P_FINAL_CUTOFF_TM_SYS
P_CDT_ACCT_CYCLE	The settlement cycle to be applied to the credit account position, populated based on the current clearing cycle of the credit MOP.
P_DBT_ACCT_CYCLE	The settlement cycle to be applied to the debit account position, populated based on the current clearing cycle of the debit MOP
P_TX_CTGY	Transaction category which differentiates between incoming and outgoing credit and debit transfers, as well as the various R messages. Example of values: CTO for outbound credit transfers, DDI for inbound direct debits, etc.
P_EXT_REF2	Accounting reference 2. This field stores external references received in acknowledgements back from external systems.
P_MANDATE_UID	The UID of the Mandate profile the specific message is one of its collections.
P_AF_EXPIRE_TIME	Specifies the time (24HH:MM) in which the pre-advice should expire on the value date. Applicable only to Pre-advice.
P_LC_INDEX	Ledger confirmation index.
P_PAY_CAP	The relevant cap set for the payment after invoking the cap selection rules. This field will be used for the screen set buttons selection for messages in the CRNSF queue
P_SC_INDEX	Settlement Confirmation index - used to match Settlement confirmation messages with payment messages.
P_PAY_CAP_DR	The relevant cap set for the payment after invoking the cap selection rules. This field will be used for the screen set buttons selection for messages in the DRNSF queue
P_ORIG_STTLM_CCY	Original Settlement (SWIFT tag 32A) Currency.
P_ORIG_STTLM_AMT	Original Settlement (SWIFT tag 32A) Amount.
P_ORIG_STTLM_DT	Original Settlement (SWIFT tag 32A) Date of the transaction.
P_ORIG_INSTR_ID	Orig Instruction ID (SWIFT tag 20 Sender's Reference).
P_REPRESENTED_COLL	Represented Collection. Where direct debit collection needs to be resubmitted.
P_LIQ_PRIORITY	Holds a value representing the liquidity priority of the payment,

Field Name	Description
	set by Liquidity priority selection rule action. Possible values are defined in user codes.
P_POSTING_STATE_MONITOR	Posting State Monitor.
P_LAST_ACTION	The name of the button last clicked by the user.
P_STTLM_CCY	Settlement (SWIFT tag 32A) Currency.
P_STTLM_AMT	Settlement (SWIFT tag 32A) Amount.
P_STTLM_DT_1B	Settlement (SWIFT tag 32A) Date.
P_DBTR_AGT_BIC_2AND	Initiating party customer unique code. The code must exists in GPP Parties Profile.
P_INSTG_AGT_BIC_2AND	Instructing agent (SWIFT Sender) BIC.
P_INSTD_AGT_BIC_2AND	Instructed agent (SWIFT Receiver) BIC.
P_FINALIZATION_DT	Finalization Date.
P_BTCH_CTRL_ID	Batch Control ID.
P_END_TO_END_ID	End To End ID (SWIFT tag 21Related Reference).
P_STANDING_ORDER_UID	Unique ID for the associated standing order.
P_LAST_SUBMIT_TS	Stands for the time stamp of the last submit that was performed for that message.
P_CCY_CONV_TP	One of the following: Debit if Inst. currency is different than Dr currency, Credit if Inst. currency is different from Cr currency.
P_DUPLICATE_INDEX	Duplicate index generated for all messages subject to duplicate checking
P_PISN_INDEX	PISN matching index generated for PI and SN messages, and used for matching the two types.
P_CHUNK_ID	The internal chunk ID associated with message.
P_UNIQUE_GROUPING_ID	Unique internal grouping ID that associates a message to a sub-batch.
P_OUT_CHUNK_ID	Data chunk used for outgoing files.
P_BULKING_REC	Not in use.
P_BATCH_MSG_TP	Batch message type indicates the batch type of the message. One of the following: A=Bulk credit message, I=Individual message, S=Bulk debit message.
P_OUT_GROUPING_ID	Out grouping Id
P_SERVICE_STATE_MONITOR	Service State Monitor - internal monitors in the code that track the payment processing flow
P_ORG_INITG_PTY_CUST_CD	Initiating party customer unique code. The code must exists in GPP Parties Profile.
P_AF_INDEX	Anticipated funds index used in matching between AF messages and either SN/SC/PAY.
P_IS_HISTORY	Used for partition. One of the following: 0=Regular, 1=History, 2=Template.
P_PAY_BY_DATETIME	Pay By Date Time as derived from the SLA profile
P_WHOSE_ERROR	Whose error indicator automatically derived from the error code and may be changed by the user in Repair: O = Our system error, C = Customer error, N = Not relevant
P_CHARGES_PAID	Indicates whether the customer paid charges. One of the

Field Name	Description
	following: 0=Not paid, 1=Paid.
P_SERVICE_MESSAGE	Service message indicator as defined for the P_MSG_TYPE in MSG_TYPES table
P_DISPLAY_MSG_TYPE	Displayed Message type - message type as it is displayed in the UI, e.g. 210RVR, 103PLS, CAMT_053, PACS008, etc.
P_DUAL_USERS	Dual users
P_DBT_MOP	Debit method of payment (MOP)
P_INSTR_ID	Instruction Identification. SWIFT tag 20 Sender Reference.
P_BASE_MSG_STS	FX Base Message status
P_TEMPLATE_MID	Unique message template ID used for payment generation.
P_TEMPLATE_TYPE	Type of template. Possible values: F=Fully repetitive, P=Partially repetitive, S= Standing Order.
P_HOLD_TIME	Office time (in HH:MM format) till which the payment should be held. Derived by Office Hold Until Time business rule that selects time of day in 10 minute intervals. Value set as BYPASS means this attr is not set.
P_CORRESPONDENT	Holds the correspondent information if the credit chain is full and where direct and cover are required
P_TRANSFER_METHOD	Transfer Method. Possible values: S=Serial, C=Cover, D=Direct.
P_RELEASE_INDEX	Release Index - defines the release order when payment parks in a wait queue, for example when payment is in SCHEDULE status.
P_RETRY_COUNT	Retry count - counter for NSF retries
P_FOLLOWUP	The follow-up code of the payment. It is used to allow the definition of follow-up queues (customized queues) based on its value. Codes are defined in the User Codes Profile.
P_CUST_BASE_AMT	Base amount (expressed in the base currency Base amount (expressed in the base currency of the originitiating customer)
P_RELEASE_DT	Date on which the payment moves to the COMPLETE queue and the accounting entries are sent.
P_INTERFACE_STATE_MONITOR	String of values that the interface state monitors for the payment, each character represents one monitor value. For example: XPXXXXXXXXXXXXXXXXX where the first character represents the value of Advising sts monitor, the second Interface monitor posting file sts.
P_PAYMENT_TP	Payment Type, either provided or derived by Payment Type Selection rules.
P_TEMPLATE_NM	User-supplied template name used during template creation.
P_TEMPLATE_CD	Template code given by a user (or received from an imported template) when defining a message as a template.
P_OFFICE_SLA	Name of office-level SLA profile assigned to the payment using SLA- Office rule.
P_DBT_SLA	Name of debit party SLA profile assigned to the payment using SLA- Debit Party rule.
P_CDT_SLA	Name of credit party SLA profile assigned to a party using SLA-Credit Party rule.

Field Name	Description
P_SLA_NOTIFY_DATETIME	Set by the soonest of cutoff time and pay-by-time fields from SLA profile. This is then being used by the Alerts and Notifications process
P_RAW_MSG_TYPE	Incoming SWIFT header block 2 message type.
P_RTR_QUOTE_REQ_ID	FX RTR quote request ID holds the ID that was generated in response to the request to FXT.
P_RATE_REQ_STATUS	Rate request status.
P_RTR_VALID_UNTIL_DATETIME	RTR Valid until date time.
P_ACK_STS	Payment acknowledgment status. One of the following: ACTC, PDNG, ACSC, RJCT.
P_PMNT_SRC	The payment source based on the interface or the source (e.g. FEEDER, CREATE) from where the payment is imported/created
P_COUNTRY_CODE	Country code. Relevant to the drawee country capability.
P_INIT_SRC_ID	Initial source ID.
P_IS_RSTRCT	Not in use.
P_SUSPENSE_ACCT_SIDE	Posting side (Dr or Cr) for suspense accounting.
P_SUSPENSE_ACCT_UID	The UID of the suspense account used for bulk processing.
P_FINAL_CUTOFF_TM	Final cutoff time (the nearest time of all 3 type of assessed cut-off).
P_AF_GROUP_INTERNAL_ID	Anticipated fund group internal ID.
P_AF_PARTIAL_INDEX	Anticipated fund partial index.
P_CDTR_ID_KEY	Creditor ID key.
P_R_MSG_INDEX	Reversal message index.
P_VERSION	Message type version of the outgoing message.
P_ORIG_VERSION	Message type version of the original message.
P_ACK_CHUNK_ID	Out Chunk Id.
P_OUT_FILE_GROUPING_ID	Out file grouping ID assigned to the payment using Out Grouping ID rules.
P_INIT_R_MSG_INDEX	Init R message index.
P_ACK_MATCH_ID	The index id used for matching when receiving an ACK/NAK or Confirmation/Rejection.
P_AF_TYPE	Indicates the type of pre-advice, possible values: Adjustment, Earmark, Reservation, Pre-advice (default).
P_DESTINATION_OFFICE	Destination office where multi office functionality is in place. Derived as per method of payment is selection.
P_DESTINATION_DEPARTMENT	Destination department where multi office functionality is in place. Users that are associated with this department are allowed to view the message.
P_EXT_REF1	Accounting reference 1. This field stores external references received in acknowledgements back from external systems.
P_CDT_ACCT_NB	Credit Account No
P_CDT_ACCT_CCY	Credit Account Currency
P_CDT_AMT	Credit Amount

Field Name	Description
P_CDT_RATE	Credit Rate
P_CDT_MID_RATE	Credit Mid Rate
P_CDT_SPREAD	Credit Spread. The maximum difference in rate between the standard (or quoted) rate and the rate given to the customer on the credit side.
P_CDT_AMT_STEP1	Credit amount step1 - amount after conversion from credit ccy to triangulation ccy
P_CDT_RATE_STEP1	Credit Rate Step1. The rate for conversion from credit ccy to triangulation ccy.
P_CDT_RATE_STEP2	Credit Rate Step2. The rate for conversion from triangulation ccy to requested ccy.
P_CDT_CROSS_CONV	Credit cross conversion indicator
P_CDT_TRIANGULATION_CCY	Credit conversion triangulation currency
P_CDT_RATE_USAGE_NM	Credit Rate Usage Name
P_CDT_APPLY_FEE	Credit apply fee - available values are (FIELDS_VALUES): LATER, NOW, WAIVE
P_CDT_FEE_ACCT_NB	Credit Fee Account Number
P_CDT_FEE_ACCT_CCY	The currency of the account to which the credit fees are debited
P_CDT_FEE_ACCT_OFFICE	Credit Fee Account Office
P_CDT_FEE_PMT_CCY	The currency defined originally for credit payment fee
P_CDT_TX_CD	Credit Transaction code
P_FC_INFO_IND	Forward Contract Information indicator used during currency conversion. One of the following: M=Manual message rate, B=Blind off-shore rate, R=Real-time rate, Null=Take from standard exchange rate.
P_BASE_CCY	Base Currency (local office currency)
P_BASE_AMT	Base Amount (expressed in base currency)
P_BASE_RATE_USAGE_NM	FX Base rate usage name
P_RVS_SELL	Reverse sell indicator (fixed debit) - for payments initiated by the customer where the Dr amount is specified and the payment amount should be calculated
P_BA_CD	Business area code. Values as set in Business Area profile
P_PRODUCT_CD	Product Code
P_PRIORITY	Payment priority. Defined by the prioritization rule and also by a specified SLA profile. The possible values are 100-900 where 100 is a non-urgent payment and 900 is the most urgent
P_USER_MSG_TYPE	User message type.
P_INSTG_AGT_CUST_CD	Instructing agent customer code.
P_TIME_STAMP	Standard GPP GUI management field that defines the date and time of the most recent update.
P_PROC_DT	Message processing date
P_TREASURY_CUTOFF_TM	Treasury cutoff date time quoted in office time
P_TREASURY_CUTOFF_NM	Treasury Cutoff Name
P_TREASURY_CUTOFF_STS	Treasury Cutoff Status. One of the following: B=Before, A=After, M=Manual intervention, N=None.

Field Name	Description
P_CLEARING_CUTOFF_TM	Clearing cutoff date and time, expressed in office time.
P_CLEARING_CUTOFF_NM	Clearing Cutoff Name
P_CLEARING_CUTOFF_STS	Clearing Cutoff Status. One of the following: B=Before, A=After, M=Manual intervention, N=None.
P_PROC_CUTOFF_TM	Processing cutoff date and time as expressed in office time.
P_PROC_CUTOFF_NM	Processing cutoff name
P_PROC_CUTOFF_STS	Processing cutoff status. One of the following: B=Before, A=After, M=Manual intervention, N=None.
P_IN_INTERNAL_FILEID	Internal file ID generated by GPP for an incoming file.
P_OUT_INTERNAL_FILEID	Internal file ID generated by GPP for an outgoing file.
P_IN_BULK_MSGID	Incoming bulk ID as generated internally by GPP.
P_OUT_BULK_MSGID	Outgoing bulk ID as generated internally by GPP.
P_BULKING_PROFILE	The name of the bulking profile associated with the Credit MOP
P_CREATE_DT	Message creation date, expressed in office time.
P_MSG_CLASS	The message class of the payment. Values as defined in FIELDS_VALUES for FIELD_TYPE=MSGCLASS
P_RATE_TYPE	Rate Type (FIELDS_VALUES): CROSS - Calculated Cross Rates, PREFER - Preferred Rates, STANDARD - Standard Rates, MARGN - Margin Rates, EMUFIXED - EMU Fixed Rate
P_DBT_VD	Debit Value Date
P_CDT_VD	Credit Value Date
P_USER_STATE_MONITOR	User State Monitor. Tracks GPP GUI user actions, such as forcing a payment from the insufficient funds queue.
P_POL_CODE	Sender credit line used for the payment or for which the payment is waiting.
P_POL_AMOUNT	Sender Credit Line amount
P_POL_STATUS	Sender Credit Line status: N - Sender Credit Line not applicable, U - Used credit from Sender Credit Line, W - Waiting for credit from Sender Credit Line
P_ORIG_MSG_TYPE	Original message type and can receive same values as P_MSG_TYPE.
P_ORIG_MSG_SUB_TYPE	Original message subtype and can receive same values as P_MSG_SUB_TYPE.
P_PREVIOUS_MSG_STS	Previous Message Status
P_MID	Unique internal message ID allocated by GPP.
XML_ORIG_MSG	Original XML payment format, including details received by the system.
XML_MSG	XML payment format, including final details after processing (might differ from the original).
P_OFFICE	Payment processing office.
P_DEPARTMENT	Payment department code
P_MSG_TYPE	Message type. For example, pacs_008, SWIFT_298_012, SWIFT_192, SWIFT_910, and so on.
P_MSG_SUB_TYPE	Message sub-type, e.g. RVR, PLS, COV

Field Name	Description
P_CDT_MOP	Credit MOP.
P_PREFERRED_CDT_MOP	Preferred credit MOP
P_NON_ACC	Non-accounting payment indicator.
P_MSG_STS	Message internal status, system queue.
P_DBT_CUST_CD	Debit party internal ID (Cust_code)
P_DBT_ACCT_OFFICE	Debit Account Office
P_DBT_ACCT_NB	Debit Account Number
P_DBT_ACCT_CCY	Debit Account Currency
P_DBT_AMT	Debit Amount
P_DBT_RATE	Debit Rate
P_DBT_MID_RATE	Debit MID rate
P_DBT_SPREAD	Debit spread - the max difference in rate between the standard (or quoted) rate and the rate given to the customer on the debit side
P_DBT_AMT_STEP1	Debit Amount Step1. The amount after conversion from debit ccy to triangulation ccy.
P_DBT_RATE_STEP1	Debit Rate Step1. The rate for conversion from debit ccy to triangulation ccy.
P_DBT_RATE_STEP2	Debit Rate Step2. The rate for conversion from triangulation ccy to requested ccy.
P_DBT_CROSS_CONV	Debit cross conversion indicator
P_DBT_TRIANGULATION_CCY	Debit conversion triangulation currency
P_DBT_RATE_USAGE_NM	Debit Rate Usage Name
P_DBT_APPLY_FEE	Debit Apply Fee: One of the following: LATER, NOW, WAIVE.
P_DBT_FEE_ACCT_NB	Debit Fee Account Number
P_DBT_FEE_ACCT_CCY	The currency of the account to which the debit fees are debited
P_DBT_FEE_ACCT_OFFICE	Debit Fee Account Office
P_DBT_FEE_PMT_CCY	The currency defined originally for debit payment fee
P_DBT_TX_CD	Debit transaction code
P_CDT_CUST_CD	Credit party internal ID (Cust_code)
P_CDT_ACCT_OFFICE	Credit Account Office

Appendix B: Glossary

Term	Description
OLTP scheme	Online transaction processing. GPP transaction processing DB scheme, storing all GPP data required for transaction processing
Replicated scheme	DB scheme populated with data by the replication processes
GPP	Global PAYplus powered by D+H Services Platform
OGG	Oracle Golden Gate
DML	Data manipulation language
DDL	Data definition language
DB	Database
UI	User Interface

Registered in England & Wales
No. 01360027

Registered Office
4 Kingdom Street Paddington
London W2 6BD