



Global PAYplus

# NACHA Message Processing

Business Guide

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## Version Control

Version	Date	Summary of Changes
1.0	Oct 2015	Document created
2.0	May 2016	Updated for rebranding, corrections made
3.0	September 2018	Document rebranded to Finastra template

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# 1 Introduction

## 1.1 Target Audience

This document is intended for business analysts and system administrators who need to understand NACHA message processing in Global PAYplus (GPP).

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Note: This document assumes that the reader is familiar with generic GPP processing flows and concepts.

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## 1.2 Related Documents

For additional information, see the following documents:

- [GPP Mass Payments Business Guide](#): This business guide is intended for technical and business personnel who need to understand the GPP mass payment functionality. It describes the GPP Mass Payment functionality, which enables banks to receive, process, and send files that contain multiple payment, collection, and related transaction messages.
- [GPP NACHA Basic Setup Business Guide](#): This business guide is intended for business analysts and system administrators who need to understand business and system setup basics for GPP NACHA message processing. It provides detailed descriptions of the set of basic reference data definitions, such as business rules and profiles, which are delivered with GPP and enable basic GPP operation.
- [GPP Online Help](#): This online help system is intended for GPP application users. It describes the basic procedures required during message processing via the GPP user interface. This guide also describes GPP profiles, business rules, and interface entities.

# 2 NACHA Transaction Processing

## 2.1 NACHA Transaction Processing Overview

GPP mass payment processing enables GPP to receive, process, and send files that contain multiple National Automated Clearing House Association (NACHA) transactions and payment-related messages. These can include credits, debits, and other transaction-related messages.

GPP is fully compliant with all NACHA rules, which enable GPP to interface with the ACH Network to transmit electronic messages.

The GPP NACHA message processing functionality enables a financial institution (FI) to do the following:

- **Receive Incoming Files:** GPP receives and parses incoming mass payment files that contain multiple NACHA-compliant messages. For more information, see [GPP Flat File Processing](#).
- **Process NACHA messages:** GPP routes each NACHA message to the mass payment workflow where GPP uses system setup options and business rules to process each payment.
- **Generate Outgoing Files:** GPP generates outgoing mass payment files that contain multiple NACHA-compliant messages.

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Note: This document describes NACHA-specific mass payment functionality and processing. For information about generic GPP mass payment processing, see the GPP Mass Payments Business Guide.

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## 2.2 GPP Roles

In NACHA message communications, the transmission flow originates from an Originating Depository Financial Institution (ODFI) and flows through an Automated Clearing House (ACH) to a Receiving

Depository Financial Institution (RDFI). The flow of funds can be in either direction, incoming or outgoing, depending on the message type (see [NACHA Message Types](#)).

The role of GPP in message processing depends on the location of the GPP application in each workflow:

- **ODFI:** An originator initiates the process by sending a mass payment file or an individual payment message to an ODFI. The ODFI, which is running GPP, receives, parses, and processes the incoming file and each payment message. GPP can also generate an outgoing payment message in response to an incoming message, as required. GPP can consolidate multiple messages into a single mass payment file that is transmitted to an ACH or message originator.
- **RDFI:** An RDFI, which is running GPP, receives a mass payment file of incoming messages from an ACH. GPP receives and parses the file, as required. GPP groups similar messages into more manageable bulks of messages and routes each bulk to the GPP mass processing workflow, where GPP processes each bulk, and in turn, each individual message.

For more information about GPP mass payments processing, see the GPP Mass Payments Business Guide.

## 2.3 NACHA Participants

The following parties participate in NACHA message processing:

- **ACH:** A central clearing facility that acts on behalf of Depository Financial Institutions (DFIs) by receiving mass payment files of ACH entries from ODFIs and RDFIs. The ACH processes the incoming files, generates outgoing mass payment files, and transmits the files to relevant ODFIs and RDFIs. An ACH can be a private organization or governmental institution, such as the Federal Reserve Bank in the United States.
- **Foreign Bank Correspondent:** A bank or other FI, located outside the United States that is a participant in a correspondent chain of an International ACH Transaction (IAT) payment message. A foreign bank correspondent is a participant in an IAT message but is not acting as an ODFI, RDFI, or gateway operator.
- **Gateway Operator:** A gateway operator is a financial institution required to execute an IAT payment message, which is used to transfer funds between a participant located in the United States and a participant located outside the United States.
- **Originator:** An originator initiates an ACH entry to transfer funds, either a credit or debit, between an originator's account and a receiver's account. An originator can be a company or an individual. An originator transmits payment messages (ACH entries) to an ODFI.
- **ODFI:** An FI that receives initiating payment messages from an originator to transfer funds between an originator's account and a receiver's account. An ODFI combines payment messages from one or more originators into a single mass payment file, transmits the file to the relevant ACH, and posts the entries to relevant depositor accounts. An ODFI can generate mass payment files that contain multiple payment messages from multiple originators to multiple receivers. An ODFI must also agree to act as an RDFI.
- **RDFI:** An FI that receives mass payment files from an ACH, processes them, and posts the entries to relevant depositor accounts. An RDFI can receive mass payment files that contain multiple payment messages from multiple originators and to multiple receivers.
- **Receiver:** A receiver receives an ACH entry initiated by the originator. A receiver can be a company or an individual. An entry can be one of the following:
  - **Debit:** An ACH entry that debits a receiver account and credits an originator account.
  - **Credit:** An ACH entry that credits a receiver account and debits an originator account.
- **Third-Party Financial Institution:** A third-party financial institution is an optional participant in a correspondent chain. This type of FI does not have a direct connection to an ACH and must transfer funds via an ODFI or RDFI.

## 2.4 NACHA Payment Message Flows

An originator initiates a NACHA transaction with a payment message, regardless of the type of transaction - credit transfer or direct debit. The originator transmits a payment message to an ODFI or to a third-party financial institution.

Upon receipt of a payment message, the ODFI can do one of the following:

- **Settle the Transaction:** Both the originator and receiver accounts are located in the ODFI, which settles the transaction as a BOOK MOP transaction.
- **Transmit the Transaction:** The ODFI processes and transmits the transaction to an ACH.
- **Forward the Transaction:** The ODFI processes and transmits the transaction for settlement with a third-party financial institution.

The receiver is the last party in the transaction flow.

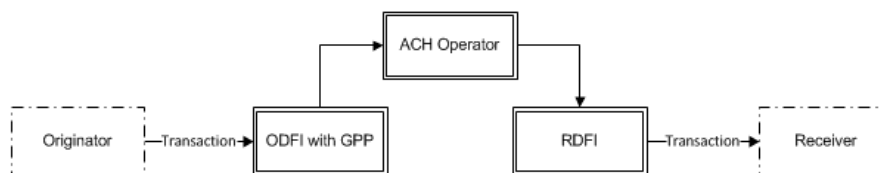
GPP supports the following NACHA transaction flows:

- [ODFI with GPP Installation](#)
- [ODFI with GPP Installation and Third-Party Financial Institution](#)
- [RDFI with GPP Installation](#)
- [RDFI with GPP Installation and Third-Party Financial Institution](#)
- [ODFI and RDFI Combination with GPP Installation](#)
- [ODFI with GPP Installation and Third-Party RDFI](#)
- [NACHA Return Message Flow](#)

### 2.4.1 ODFI with GPP Installation

In this flow, an originator initiates a payment transaction to an ODFI with a GPP installation. GPP processes the payment message and determines that the receiver does not exist in the ODFI's system. As such, GPP generates a message and transmits it to the relevant ACH operator, who in turn, forwards the message to the relevant RDFI and receiver.

The following displays this NACHA transaction flow.

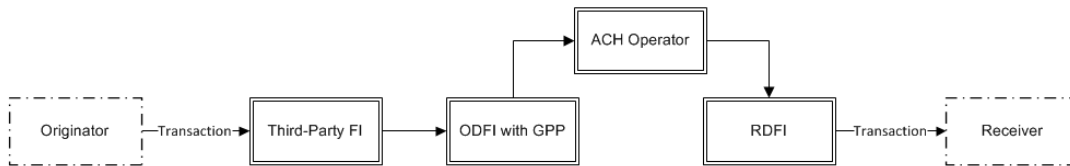


### 2.4.2 ODFI with GPP Installation and Third-Party Financial Institution

In this flow, an originator initiates a payment transaction to a financial institution, who is not an ACH Network member. The financial institution transmits the transaction to an ODFI with a GPP installation. GPP processes the payment message and determines that the receiver does not exist in the ODFI's system. As such, GPP generates a message and transmits it to the relevant ACH, who in turn, forwards the message to the relevant RDFI and receiver.

The following displays this NACHA transaction flow.

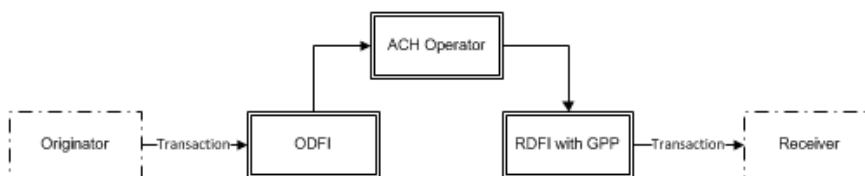




### 2.4.3 RDFI with GPP Installation

In this flow, an originator initiates a payment transaction to an ODFI, who is an ACH Network member. The ODFI transmits the transaction to the relevant ACH operator, who transmits the payment to the RDFI with a GPP installation. GPP processes the payment, as required, and completes processing to the receiver.

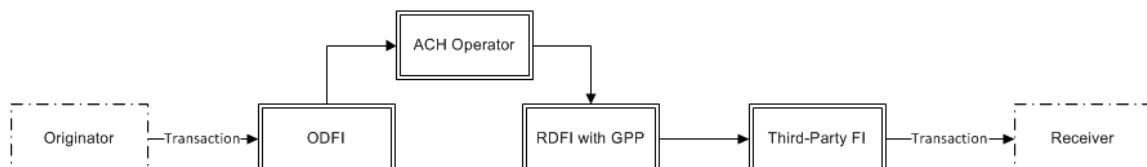
The following displays this NACHA transaction flow.



### 2.4.4 RDFI with GPP Installation and Third-Party Financial Institution

In this flow, an originator initiates a payment transaction to an ODFI, who transmits the message to the relevant ACH operator. The ACH operator transmits the message to an RDFI with a GPP installation. GPP processes the payment message and determines that it is not the settlement financial institution. GPP transmits the message to the settlement financial institution, which completes the transaction with the receiver.

The following displays this NACHA transaction flow.



### 2.4.5 ODFI and RDFI Combination with GPP Installation

In this flow, an originator initiates a payment transaction to an ODFI, who also functions as an RDFI because the receiver holds an account at the local FI. GPP processes the transaction internally as a BOOK MOP, and does not transmit it to an ACH operator.

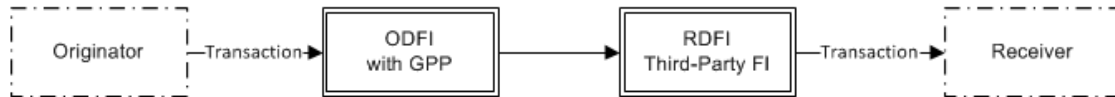
This image displays this NACHA transaction flow.



### 2.4.6 ODFI with GPP Installation and Third-Party RDFI

In this flow, an originator initiates a payment transaction to an ODFI with a GPP installation. GPP determines that the RDFI is a third-party financial institution and transmits the message to the financial institution. The third-party financial institution completes the transaction with the receiver.

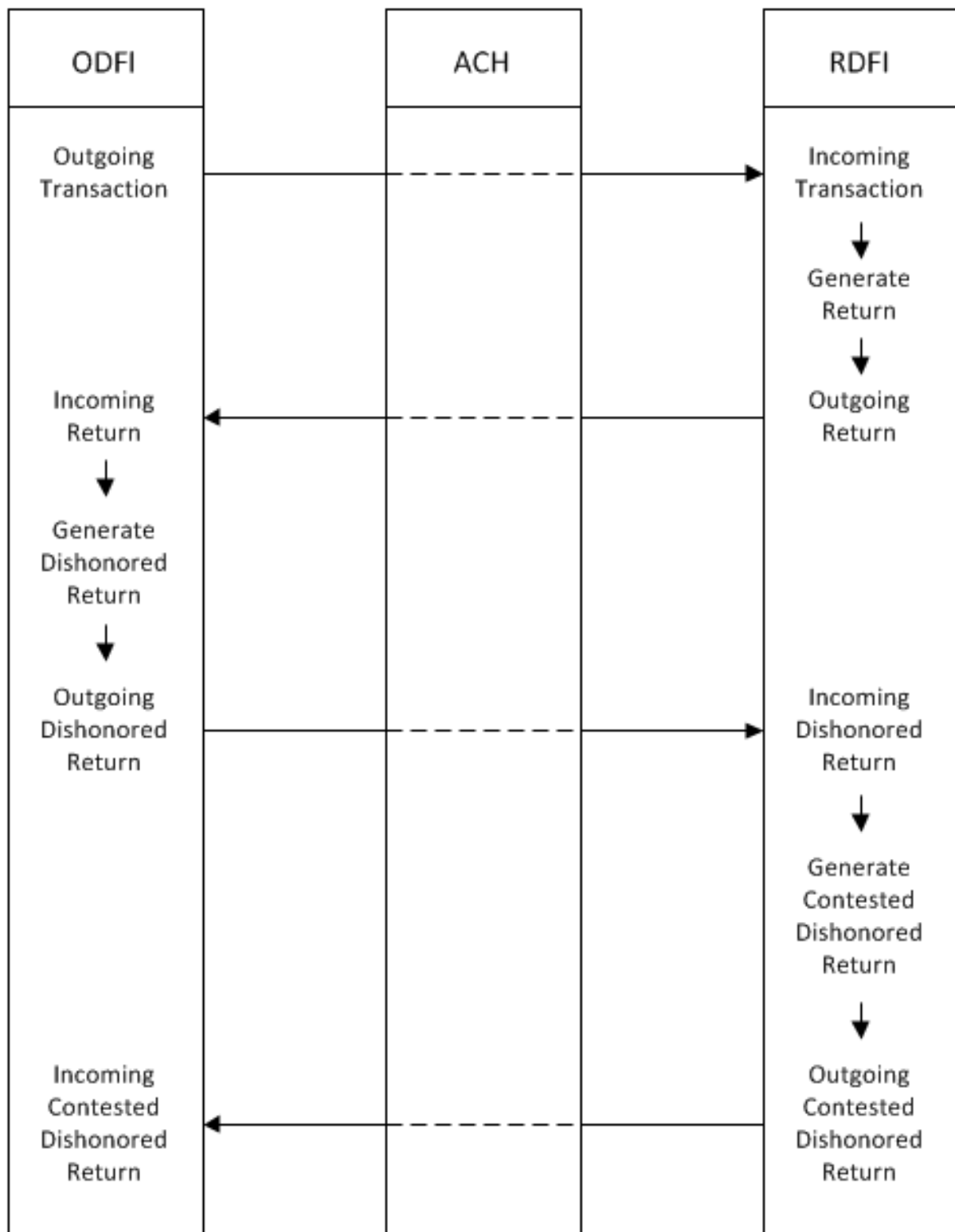
The following displays this NACHA transaction flow.



### 2.4.7 NACHA Return Message Flow

Both an ODFI and RDFI can generate and transmit one of the message types (see [Return Message Types](#)) that participate in the NACHA Return message flow. But an FI can only return an incoming message for a valid return reason, such as a debit account with insufficient funds. Each valid return reason has a corresponding NACHA Return Reason code. For a list of NACHA Return Reason codes, see the relevant NACHA documentation.

In a typical NACHA Return flow, an RDFI initiates a Return message in response to an incoming payment message sent by an ODFI, as displayed by the following flow diagram:



A typical NACHA return message flow can have the following stages:

- Upon receipt of an incoming payment message (debit or credit), an RDFI rejects an incoming payment transaction and initiates a return message flow by generating a Return message and transmitting it to the ODFI.
- The ODFI receives the incoming Return message, and rejects it by generating a Dishonored Return message and transmitting it to the RDFI. (roadmap)
- The RDFI receives the incoming Dishonored Return message, and rejects it by generating a Contested Dishonored Return message and transmitting it the ODFI. (roadmap)
- The ODFI receives the incoming Contested Dishonored Return message, which ends the flow. (roadmap)

The current version of GPP supports the Generation of a Return message by and RDFI as well as the receipt of return message by and ODFI. The generation of Dishonored Returns and Contested Dishonored returns will be supported in a future release.

For more information about NACHA Return messages, see [Return Message Types](#).

## 2.5 NACHA Mass Payment Files

NACHA messages are received into GPP from NACHA in text-based mass payment files that comply with the NACHA format. NACHA messages can also be received by GPP from an originating FI customer. These messages must arrive in ISO 20022 format. The ISO message type for Credit transfers is Pain.001. The ISO message type for Direct Debit transfers is Pain.008

A mass payment file contains rows of individual records, each of a specific type identified by a Record Type Code. A file contains the following types of records, each in a specific format:

- File Header: A record that contains file-level identifiers and information. It must be the first record in a mass payment file.
- File Control: A record that contains file-level validation information. It must be the last record in a mass payment file.
- Batch Header: A record that contains batch-level identifiers and information. It indicates the beginning of a batch of messages, or transactions. A mass payment file must contain at least one batch but might contain multiple batches.
- Batch Control: A record that contains batch-level validation information. It indicates the end of a batch of messages.
- Entry Detail: An individual transaction record that contains transaction identifiers and information. Each batch in a mass payment file must contain at least one Entry Detail record but might contain multiple Entry Detail records.
- Addenda: A record that contains additional information that corresponds to a specific Entry Detail record. The number of Addenda records that correspond to each Entry Detail record varies according to the type of Entry Detail record.

## 2.6 NACHA Message Types

NACHA messages arrive to GPP in a mass payment file (see [NACHA Mass Payment Files](#)) that groups messages into batches of individual messages, or transactions. Each batch can contain only a single type of message, which is identified by a Standard Entry Class (SEC) code in the batch header record. All messages in a batch share a common originator, either creditor or debtor, but can have multiple beneficiaries.

The following table describes the message types GPP uses to identify each NACHA message.

GPP Message Type	Description	NACHA SEC Codes
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GPP Message Type	Description	NACHA SEC Codes
NACHA_CT	Direct Deposit transactions (see Credit Transfer Messages)	CCD, CIE, CTX, IAT, PPD, MTE
NACHA_DD	Pre-Authorized Payment transactions (see <a href="#">Direct Debit Messages</a> )	ARC, BOC, CCD, CTX, IAT, POP, POS, SHR, TRC, TRX PPD, MTE, RCK, TEL, WEB, XCK
NACHA_RTN	Return transactions for both NACHA_CT and NACHA_DD	CCD, CIE, CTX, IAT, PPD, MTE, ARC, BOC, POP, POS, SHR, TRC, TRX, RCK, TEL, WEB, XCK
NACHA_ACK	Acknowledgment and negative Acknowledgment messages	ACK, ATX
NACHA_ADMIN	Administrative messages (see <a href="#">Administrative Message Types</a> )	COR, ENR, DNE

GPP supports the following NACHA message types:

- **Administrative:** An Administrative message is a non-monetary message that an ODFI, RDFI, or other financial institution uses for the following:
  - To enroll an account holder in a federal program or service
  - To inform another party or financial institution of incorrect or outdated data
  - To inform another party or financial institution of a change in status of an account holder
 For information about the various types of Administrative messages, see [Administrative Message Types](#).
- **Credit Transfer:** An originator initiates a credit transfer by instructing an ODFI to transfer funds from the originator's account at an ODFI to a receiver's account at an RDFI. For more information, see [Credit Transfer Messages](#).
- **Direct Debit:** An originator initiates a direct debit by instructing an ODFI to transfer funds from a receiver's account at an RDFI to the originator's account at an ODFI. For more information, see [Direct Debit Messages](#).
- **Return:** An ODFI or RDFI sends a Return message to notify the sending FI that the receiving FI is rejecting a previously received message. For more information, see [Return Message Types](#).

### 2.6.1 Administrative Message Types

An Administrative message is a non-monetary message that an FI uses to notify another party of incorrect or outdated data.

GPP processes Administrative messages using an Administrative message workflow, which follows the generic GPP incoming message workflow. However, because these messages are non-monetary, the workflow does not include many of the GPP monetary services and functionality, such as the Foreign Exchange (FX) and Currency Conversion services. The workflow also refrains from invoking all posting-related interfaces and services.

GPP supports the receipt of the following types of Administrative messages:

- **Automated Enrollment Entry:** An ODFI sends an Automated Enrollment Entry (ENR) message to a United States federal agency, via an ACH, to notify the agency that an FI account holder is enrolling in an agency program.
- **Death Notification Entry:** A government institution sends a Death Notification Entry (DNE) message, via an ACH, to notify an RDFI that an FI account holder who is receiving a government benefit payment is deceased and is not eligible to receive future payments.

- **Notification of Change:** An RDFI sends a Notification of Change (NOC) message to notify an ODFI that an FI account holder's account attributes are incorrect or outdated and should be corrected in subsequent messages.
- **Refused NOC:** An ODFI sends a Refused NOC message to an RDFI in response to a previously received NOC message. The Refused NOC message informs the RDFI that the ODFI is not accepting the changes described in the received NOC message.

For more information about Administrative messages, see [Administrative Message Processing](#).

## 2.6.2 Credit Transfer Messages

An originator initiates credit transfers by sending a Cash Concentration or Disbursement (CCD) message to an ODFI. The message instructs the ODFI to transfer funds from the originator's account to a receiver's account at an RDFI. The originator can also instruct the ODFI to transfer funds from the originator's account to multiple receiver accounts.

As part of GPP mass payment functionality, an ODFI can receive credit transfer messages from multiple originators and accumulate them into a single mass payment file. The ODFI generates a mass payment file that contains multiple batches of credit transfer messages, one for each originator. The ODFI transmits the file, at a defined time, to the relevant ACH via the ACH Network.

For example, a corporate customer (originator) can use credit transfers to transfer employee salaries directly into employee accounts (receivers). The corporate customer's account shows a single debit posting to reflect the multiple deposits to employee accounts.

For more information about GPP mass payments processing, see the GPP Mass Payments Business Guide.

## 2.6.3 Direct Debit Messages

An originator initiates a direct debit by sending a Prearranged Payment and Deposit Entry (PPD) message to an ODFI. The message instructs the ODFI to transfer funds from a receiver's account at an RDFI to the originator's account at the ODFI. The originator can also instruct the ODFI to transfer funds from multiple receiver accounts to the originator's account.

As part of GPP mass payment functionality, an ODFI can receive a file that contains multiple direct debit messages, each from a different receiver account. The ODFI processes each incoming direct debit message to credit the relevant originator account with a single posting. For example, a corporate customer, such as a cable television provider, can use direct debits to collect monthly fees from cable customers.

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Note: A direct debit entry cannot be posted to a receiver's account before the transaction settlement date.

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## 2.6.4 Return Message Types

An RDFI can initiate a return message flow in response to an incoming payment message received from an ODFI. The flow can consist of subsequent return messages, each of a specific type that an ODFI or RDFI can use to reject the relevant incoming payment or return message.

GPP supports the following return message types, which are listed in their order of usage in the return message flow:

- **Return:** An RDFI sends a Return message in response to a payment message received from an ODFI. The Return message notifies the ODFI that the RDFI is refusing to accept the received payment message.
- **Dishonored Return:** An ODFI sends a Dishonored Return message in response to a Return message received from an RDFI. GPP currently supports only the receipt of this message type.

- **Contested Dishonored Return:** An RDFI sends a Contested Dishonored Return message in response to a Dishonored Return message received from an ODFI. GPP currently supports only the receipt of this message type.

For more information, see [Return Message Processing](#).

## 2.7 GPP Flat File Processing

GPP flat file processing enables GPP to receive incoming NACHA files that contain multiple transaction-related messages. GPP implements a proprietary GPP infrastructure that includes data structures that enable the system to process various flat files, each with its own definable structure and characteristics.

The infrastructure includes a parser that uses implementation-specific definitions and mapping configurations to parse and validate each record and field in an incoming flat file.

The parser then uses the information to generate a GPP Payment Data Object (PDO) for each incoming transaction. The parser also generates other GPP data entities such as file summary and batch summary profiles, as required.

## 3 NACHA Message Processing

### 3.1 NACHA Message Processing Overview

GPP NACHA message processing follows the generic GPP mass payment workflow. At specific points during the generic workflow, GPP implements changes to enable NACHA message processing.

For example, during the Preprocessing stage, GPP implements the following sub-flows and services to enable NACHA message processing:

- **Administrative Message Processing:** Enables an FI to process Administrative messages. For more information, see [Administrative Message Processing](#).
- **Return Message Processing:** Enables an FI to process Return messages. For more information, see [Return Message Processing](#).

For more information about the generic GPP mass processing workflow, see the GPP Mass Payments Business Guide.

GPP also supports the following NACHA message processing workflows and functionality:

- [Incoming Payment Message Workflow](#)
- [Return Message Processing](#)
- [Return and NOC Message Matching](#)

### 3.2 Administrative Message Processing

GPP processes Administrative messages using a dedicated workflow for non-monetary messages. The Administrative message workflow follows the generic GPP mass payment workflow, but does not include many of the GPP monetary services and functionality, such as the FX and Currency Conversion service.

During the mass payment Preprocessing, GPP invokes Business Flow Selection rules that determine the most appropriate business workflow for each payment message. Using these rules, if GPP

determines that a payment message is an Administrative message, GPP continues processing the message using the Administrative message workflow.

For more information about GPP mass payment processing, see the [GPP Mass Payments Business Guide](#).

### 3.3 Incoming Payment Message Workflow

The incoming payment message workflow begins when an RDFI receives a payment message from an ACH.

GPP processes incoming payment messages using the generic GPP mass payments workflow. The Preprocessing stage of the workflow includes a dedicated component for NACHA payment message processing.

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Note: The dedicated component processes only those payment messages that have a monetary value.

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### 3.4 Return Message Processing

GPP enables FIs, both ODFIs and RDFIs, to process incoming Return messages and generate outgoing Return messages, as required.

GPP processes each Return message (see [Return Message Types](#)) using the generic mass payment message workflow, and handles each Return message as a standalone message that does not require GPP to match a Return message to a corresponding message. Instead, GPP uses the message attributes contained in the Return message to populate the fields required for processing.

If GPP is not able to match an incoming Return message with its corresponding message, GPP processes the Return message as defined in the Parties profile for the defined destination party. For more information, see [Return and NOC Message Matching](#).

GPP supports the following types of Return message generation:

- **Automatic:** GPP automatically generates an outgoing Return message in response to an incoming message. GPP can generate an outgoing Return message in the following cases:
  - GPP determines that an incoming message has a valid return reason, such as a debit account with insufficient funds. Each valid return reason has a corresponding NACHA Return Reason code. For a list of NACHA Return Reason codes, see the relevant NACHA documentation.
  - An incoming message fails GPP message validation or processing. For example, GPP automatically generates a Return message if an incoming message is a duplicate message that was previously received and processed.

For information about GPP Return message workflows and automatic message generation, see [Return Message Workflows](#).

- **Manual:** An authorized GPP user generates an outgoing Return message using the GPP UI. For more information, see [Return Messages Manual Handling](#).

#### 3.4.1 Return Message Workflows

GPP supports the following Return message workflows:

- **ODFI Incoming Return:** An ODFI receives a Return message from an RDFI in response to a payment message sent to the RDFI.
- **RDFI Outgoing Return:** An RDFI generates and transmits a Return message to notify an ODFI that the RDFI is rejecting a payment message received from the ODFI.



To process incoming payment and Return messages, GPP uses the generic mass payment message workflow with specific enhancements, as described in [Incoming Payment Message Workflow](#).

The GPP mass payment message workflow requires no special enhancements to process outgoing Return messages. For more information about the GPP mass payment message workflow, see the [GPP Mass Payments Business Guide](#).

### 3.4.2 Incoming Return Message Workflow Enhancements

The Return message workflow includes processing enhancements in the following processing stages:

- **Parsing:** When parsing incoming mass payment files, GPP identifies whether a file contains Return messages. If so, GPP identifies each type of Return message (see [Return Message Types](#)) using the Return Reason Code contained in the addenda record of each Return message. GPP uses the Return message type when invoking Matching Check Selection rules during Preprocessing.

For more information about parsing, see [GPP Flat File Processing](#).

- **Preprocessing:** GPP Preprocessing includes a dedicated component to handle incoming Return messages. The component does the following:
  - Uses the defined Message Class of each Return message to validate whether a message is one of the Return message types. If a message is not one of the Return message types, GPP exits the component and routes the message to continued mass payment processing.
  - Attempts to match each incoming Return message to its corresponding outgoing message (payment or return). For more information, see [Return and NOC Message Matching](#).
  - Determines whether GPP is processing the Return message as a result of an authorized user submitting the message from the ROFi queue. GPP exits the component and routes the message to continued mass payment processing. For more information, see [Return Messages Manual Handling](#).
  - Identifies the destination party of the Return message using the First in Chain service, which includes an enhancement that enables GPP to access the relevant Parties profile (see [Message STP Validation Profile](#))

GPP uses Message STP Validation profiles to validate various aspects of incoming messages to prevent STP processing.

For NACHA message processing, GPP enables authorized users to define a parent Message STP Validation profile that has one or more children Message STP Validation profiles. During NACHA message processing, GPP invokes STP Rules Selection rules to determine the relevant Message STP Validation profile for each message. If the profile, as determined by GPP, is a parent profile with one or more children profiles, GPP accesses each child profile when processing the specific message.

The following table describes NACHA-specific fields in the Message STP Validation profile.

Field Name	Description
Parent message STP validation profile	The name of the parent profile defined for a specific Message STP Validation profile.
Child message STP validation profiles exist	A checkbox automatically populated by GPP that indicates whether a Message STP Validation profile is defined as a parent profile with one or more children profiles.

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Note: A parent Message STP Validation profile can have multiple children profiles but cannot be defined as a child for another profile. A child Message STP Validation profile cannot be defined as a parent profile for another profile.

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For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

- Parties Profile) to determine whether the account is enabled for unmatched Return message processing.
- **Graceful Termination:** GPP Graceful Termination includes the following enhancements to handle incoming Return messages:
  - For each Return message with a REJECTED status, GPP invokes Generate Transaction Selection rules to generate a Return message of the appropriate type.
  - GPP automatically generates an appropriate NACHA Return Reason Code for each generated Return message.
  - If GPP successfully matches a Return message with an original message, GPP does the following:
    - › Invokes Message Workflow Determination - STP rules to set the status of the original matched message to RETURNED or SERVICE\_REJECTED.
    - › Sets the status of the generated Return message to COMPLETE.
    - › Executes Graceful Termination to process the original matched message to completion.

For more information about the GPP mass payment message workflow, see the [GPP Mass Payments Business Guide](#).

### 3.4.3 Return Message Matching Relationships

During incoming Return message processing, GPP attempts to match an incoming message with the corresponding message that immediately preceded it in the Return message workflow (see [Return Message Workflows](#)).

For example, when processing an incoming Contested Dishonored Return message, GPP attempts to match the incoming message with the corresponding outgoing Dishonored Return message, and not the original payment message.

The following table lists message types that GPP matches during Return message processing.

Message Type	Corresponding Message Type
Incoming Return	Outgoing Payment
Generated Outgoing Return	Incoming Payment

GPP invokes Matching Check Profile Selection rules and Matching Check profiles to attempt to match each incoming message with its corresponding original message.

Return message matching is not a GPP requirement as GPP can also process unmatched Return messages, as described in [Return and NOC Message Matching](#).

### 3.4.4 Return Message Time Frame Validations

NACHA requires that each incoming Return message (regardless of message type) must arrive to the recipient FI within a specified number of days from the settlement date of the original funds transfer message. Each NACHA Return Reason Code has a corresponding number of days that defines a time frame for all messages returned for that reason. The Return Reason Code is contained in the Addenda record of its associated Return message.

GPP:

- Invokes STP Validation rules to determine whether an incoming Return message passes the time frame validation.
- Automatically rejects each Return message that fails time frame validation.

For a list of NACHA Return Reason codes and their accompanying time frame definitions, see the relevant NACHA documentation.

### 3.5 Return and NOC Message Matching

GPP enables FIs to tailor the Return and NOC message matching functionality to meet payment message processing requirements for individual customer accounts.

GPP mass payment processing includes matching payment messages with a corresponding message that was previously processed by the system. GPP invokes specific business rules and algorithms to match these messages using selected message attributes and/or GPP-generated unique identifiers. An FI can also use these rules to define how GPP handles unmatched messages.

For example, an FI can define a rule to route each unmatched message of a specific type to a queue designated for manual handling. An FI can define another rule for a different message type that automatically rejects an unmatched message of that type. For more information about message matching, see the [GPP Mass Payments Business Guide](#).

During incoming Return message processing, GPP attempts to match an incoming message with the corresponding message that immediately preceded it in the Return message workflow (see [Return Message Workflows](#)). For example, in the first stage of the flow, GPP matches an incoming Return message to its corresponding original transaction.

This table lists the matching messages in the Return message workflow.

Message Type	Matching Message Type	GPP Relationship
Incoming Return	Outgoing Original Transaction	Incoming Reject Return^Original Payment
Incoming Dishonored Return	Outgoing Return	Incoming Reject Return^Original Payment
Incoming Contested Dishonored Return	Outgoing Dishonored Return	Incoming Reject Return^Original Payment
Outgoing Return	Incoming Transaction	Original Payment^Outgoing Reject Return
Outgoing Dishonored Return	Incoming Return	Return^Represent Return
Outgoing Contested Dishonored Return	Incoming Dishonored Return	Return^Represent Return

GPP processes incoming Return and NOC messages as follows:

- **Matched:** GPP successfully matches an incoming NOC or Return message to its corresponding original transaction or Return message. After matching, GPP processes the incoming message using the generic mass payments workflow.
- **Unmatched:** GPP cannot match an incoming NOC or Return message to its corresponding transaction or Return message. GPP routes the unmatched message to a specific queue for manual handling (see [NACHA Message Manual Handling Overview](#)) as defined for the specific type of unmatched message.

## 4 NACHA Message Manual Handling

### 4.1 NACHA Message Manual Handling Overview

The GPP UI enables authorized users to access and handle various types of NACHA payment messages, as required. GPP routes these messages to specific queues for manual handling, usually as the result of defined business and system rules.

GPP enables authorized users to manually process NACHA messages as follows:

- [Incoming Refused NOC Message Manual Handling](#)
- [Outgoing NOC Message Manual Initiation](#)
- [Outgoing Refused NOC Message Manual Initiation](#)
- [Return Messages Manual Handling](#)
- [Unmatched NOC Message Manual Handling](#)

#### 4.1.1 Incoming Refused NOC Message Manual Handling

The GPP UI enables authorized RDFI users to handle incoming Refused NOC messages that GPP was not able to process to completion via the mass payment message processing workflow.

If GPP cannot successfully match an incoming Refused NOC message to its corresponding NOC message, GPP sets the status of the Refused NOC message to SERVICE\_RELEASE and routes it to a specific queue for manual handling.

Using the GPP UI, authorized RDFI users can access Refused NOC messages in the Service Release queue and do one of the following:

- **Submit:** The user accepts an incoming Refused NOC message without matching it to a corresponding original payment message and submits it back into the mass payment processing workflow for continued processing.
- **Refuse:** The user rejects an incoming Refused NOC message by setting the status of the message to SERVICE\_REJECTED and routing it back into the mass payment workflow.

#### 4.1.2 Outgoing NOC Message Manual Initiation

The GPP UI enables authorized RDFI users to initiate an outgoing NOC message.

If GPP does not automatically create an outgoing NOC message in response to an incoming payment or Prenotification message that contain incorrect or outdated data, GPP sets the status of the incoming payment message to REPAIR and routes it to the **Service Repair** queue for manual handling.

An authorized RDFI user can access the message via the GPP UI, repair the incorrect data, and submit the message for continued processing. The UI also enables the user to generate an outgoing NOC message to notify the ODFI of the changes.

An RDFI user can create an outgoing NOC message only under the following conditions:

- The user initiates the action within two business days of the settlement date of the original payment message.
- The original payment message has one of the following statuses:
  - COMPLETE
  - RELEASE
  - SCHEDULE

Upon initiating an outgoing NOC message, GPP does the following:

- Generates an NOC message using values from original payment message by invoking the following business rules:
  - Generate Transaction Selection: To select the most appropriate Generate Transaction profile
  - Transaction Generation Mapping Selection: To select the most appropriate Transaction Generation Mapping rules
  - Transaction Generation Mapping: To populate message fields with required values
- Transmits the NOC message to the ODFI
- Links the NOC message to the original payment message
- Sets the status of the NOC message to SERVICE\_COMPLETE

### 4.1.3 Outgoing Refused NOC Message Manual Initiation

The GPP UI enables authorized ODFI users to initiate an outgoing Refused NOC message.

Upon receipt of an NOC message, GPP uses Source MOP STP Validation processes to determine whether the message is valid. If GPP determines the NOC message is valid but cannot match it to an original payment message, GPP sets the status of the message to SERVICE\_RELEASE and routes it to a specific queue for manual handling.

Using the GPP UI, authorized ODFI users can access NOC messages in the Service Release queue and create an outgoing Refuse NOC message to transmit to the relevant RDFI.

An ODFI user can only create an outgoing Refused NOC message within 15 days of receiving the corresponding NOC message.

Upon initiating an outgoing Refused NOC message, GPP does the following:

- Generates a Refused NOC message using values from original payment message by invoking the following business rules:
  - Generate Transaction Selection: To select the most appropriate Generate Transaction profile
  - Transaction Generation Mapping Selection: To select the most appropriate Transaction Generation Mapping rules
  - Transaction Generation Mapping: To populate message fields with required values
- Displays the Refused NOC in the **Transaction Data** screen enabling the user to provide a **Change code** value before submitting the message for processing.

### 4.1.4 Return Messages Manual Handling

The GPP UI enables authorized users to manually generate the various types of Return messages in response to incoming payment or Return message types.

An authorized user can return the following types of messages:

- **Final Status:** An authorized user can access a matched payment or Return message that has reached a final status, such as COMPLETE, and initiate a Return message generation flow to return the message to the ODFI or RDFI that sent the original message.
- **Unmatched:** If GPP cannot successfully match an incoming payment or Return message to its corresponding original message, GPP sets the status of the unmatched message to ROFi and routes it to the ROFi queue. An authorized user can access the message in the ROFi queue and do one of the following:
  - Match and Submit: The user manually matches the unmatched payment or Return message to its corresponding original message and submits it back into the mass payment processing workflow for continued processing.

- Return: The user returns the incoming message by generating the appropriate type of Return message as determined by the corresponding message that immediately preceded it in the Return message workflow (see [Return Message Workflows](#)). The user can do one of the following:
  - › Return: The user can return a previously received credit transfer or direct debit transaction.
  - › Dishonor/Contest: The user can return a previously received Return or Dishonored Return message.

For information about each Return message type, see [Return Message Types](#).

#### 4.1.5 Unmatched NOC Message Manual Handling

The GPP UI enables authorized ODFI users to handle unmatched NOC messages that GPP was not able to process to completion via the mass payment message processing workflow.

If GPP cannot successfully match an incoming NOC message to its corresponding original payment message, GPP sets the status of the NOC message to SERVICE\_RELEASE and routes it to the Service Release queue for manual handling.

Using the GPP UI, authorized ODFI users can access unmatched NOC messages in the Service Release queue, select a specific message, and do one of the following:

- **Match and Submit:** The user manually matches the unmatched NOC message to its corresponding original payment message and submits it back into the mass payment processing workflow for continued processing.
- **Refuse:** The user does not manually match the incoming NOC message and rejects it by initiating an outgoing Refused NOC workflow, which generates an outgoing Refused NOC message. The GPP UI enables the user to select a **Reason code** for the refusal before submitting the message back into the mass payment workflow.

## 5 NACHA Business Setup and System Configuration

### 5.1 Business Rules

GPP uses business rules to achieve flexibility in payment processing. By creating and maintaining business rules, an FI can tailor system behavior to specific business requirements.

GPP has many types of business rules, and each type is used for a specific purpose. For example, GPP uses MOP Selection business rules to automatically determine the most appropriate MOP for each message.

Each GPP business rule has a set of conditions and a related action. The conditions refer to attributes of a message or other associated reference data in the system. GPP performs the defined action if a payment message meets the conditions defined in the rule.

GPP implements the same types of business rules irrelevant to the type of GPP system. For example, GPP implements MOP Selection business rules during message processing in both SEPA- and NACHA-based systems. The implementation differences are found in the conditions defined in the rules.

For more information about each rule type, see the [GPP Mass Payments Business Guide](#).

The following table describes the GPP business rules with NACHA-specific setup implementations.

Rule Type	Description
Advising Type Selection	Rules that GPP invokes to determine the type of advice message to generate.

Rule Type	Description
Bulking Sending Time	Rules that GPP invokes to determine the appropriate time to generate and send outgoing files of payment messages.
Compliance Validation	Rules that GPP invokes to determine whether to send each transaction to the compliance mechanism.
Credit Account Enrichment	Rules that enable an FI to define the relevant credit account for a message.
Debit Account Enrichment	Rules that enable an FI to define the relevant debit account for a message.
Incoming File Filter	Rules that enable an FI to perform additional validations for an accompanying Stop and Swap profile
Incoming Batch Filter	Rules that enable an FI to determine whether a batch of transactions in an incoming mass payment file is valid.
MOP Selection	Rules that enable an FI to determine the most appropriate MOP for each message.
MOP Bulking Profile Selections	Rules that enable an FI to define multiple Bulking profiles for a single MOP.
Sub-Batch Filter	Rules that enable an FI to prevent STP processing of specific types of messages.
Validation	Rules that enable an FI to design and perform custom validations on transactions and payment-related messages.
Batch validation	Rules that enable an FI to determine whether a batch of transactions in an incoming mass payment file is valid.

For specific rule setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

## 5.2 Business Profiles

GPP setup uses business profiles to determine how GPP processes each payment message using the specific information associated with the message.

For more information about each business profile, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help.

The following table describes the GPP profiles with NACHA-specific setup implementations.

Profile Name	Description
Accounts	Enables authorized users to create and manage accounts for local FIs and parties. For NACHA-specific information, see <a href="#">Accounts Profile</a> .
Bulking	Enables authorized users to define bulking attributes for outgoing mass payment files. A Bulking profile can be associated with a specific MOP or with a specific receiving party.
DD Parameters	Used to determine direct debit processing. For NACHA message processing, a default DD Parameters profile enables the GPP to skip creditor ID validation when processing direct debit messages.
Message STP Validation	Used to validate various aspects of incoming messages to prevent STP processing. For NACHA-specific information, see <a href="#">Message STP Validation Profile</a> .



Profile Name	Description						
Method of Payments	Enables authorized users to control how GPP interacts with each MOP defined in the system.						
Override STP	Enables authorized users to prevent STP processing of specific transactions that meet defined business rule conditions.						
Parties	<p>Stores information for each bank, financial institution, or other party that maintains a relationship with the FI.</p> <p>For NACHA-specific information, see <a href="#">Message STP Validation Profile</a>. GPP uses Message STP Validation profiles to validate various aspects of incoming messages to prevent STP processing.</p> <p>For NACHA message processing, GPP enables authorized users to define a parent Message STP Validation profile that has one or more children Message STP Validation profiles. During NACHA message processing, GPP invokes STP Rules Selection rules to determine the relevant Message STP Validation profile for each message. If the profile, as determined by GPP, is a parent profile with one or more children profiles, GPP accesses each child profile when processing the specific message.</p> <p>The following table describes NACHA-specific fields in the Message STP Validation profile.</p> <table> <tr> <th>Field Name</th><th>Description</th></tr> <tr> <td>Parent message STP validation profile</td><td>The name of the parent profile defined for a specific Message STP Validation profile.</td></tr> <tr> <td>Child message STP validation profiles exist</td><td>A checkbox automatically populated by GPP that indicates whether a Message STP Validation profile is defined as a parent profile with one or more children profiles.</td></tr> </table> <p>Note: A parent Message STP Validation profile can have multiple children profiles but cannot be defined as a child for another profile. A child Message STP Validation profile cannot be defined as a parent profile for another profile.</p> <p>For more information, see the <a href="#">GPP Mass Payments Business Guide</a> and the GPP Online Help. For specific setup information, see the <a href="#">GPP Business Guide NACHA Basic Business Setup</a>.</p>	Field Name	Description	Parent message STP validation profile	The name of the parent profile defined for a specific Message STP Validation profile.	Child message STP validation profiles exist	A checkbox automatically populated by GPP that indicates whether a Message STP Validation profile is defined as a parent profile with one or more children profiles.
Field Name	Description						
Parent message STP validation profile	The name of the parent profile defined for a specific Message STP Validation profile.						
Child message STP validation profiles exist	A checkbox automatically populated by GPP that indicates whether a Message STP Validation profile is defined as a parent profile with one or more children profiles.						
Value Date Determination	Used to define message date parameters.						

For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

### 5.2.1 Accounts Profile

The GPP Accounts profile enables authorized GPP users to create and manage accounts for local FIs and parties.

For FIs with multiple ABAs, NACHA payment processing requires accounts to have a unique identifier that consists of the holding FI's American Bankers Association (ABA) code and its account number. GPP also needs to store only the account number, without the holding FI's ABA code, as a separate value. The **AKA account number** field in the Accounts profile stores this value.



For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

## 5.2.2 Message STP Validation Profile

GPP uses Message STP Validation profiles to validate various aspects of incoming messages to prevent STP processing.

For NACHA message processing, GPP enables authorized users to define a parent Message STP Validation profile that has one or more children Message STP Validation profiles. During NACHA message processing, GPP invokes STP Rules Selection rules to determine the relevant Message STP Validation profile for each message. If the profile, as determined by GPP, is a parent profile with one or more children profiles, GPP accesses each child profile when processing the specific message.

The following table describes NACHA-specific fields in the Message STP Validation profile.

Field Name	Description
Parent message STP validation profile	The name of the parent profile defined for a specific Message STP Validation profile.
Child message STP validation profiles exist	A checkbox automatically populated by GPP that indicates whether a Message STP Validation profile is defined as a parent profile with one or more children profiles.

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Note: A parent Message STP Validation profile can have multiple children profiles but cannot be defined as a child for another profile. A child Message STP Validation profile cannot be defined as a parent profile for another profile.

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For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

## 5.2.3 Parties Profile

The GPP Parties profile stores information for each FI, bank, or other party that maintains a relationship with the FI.

The following Parties profile screens contain NACHA-specific fields:

- [Parties Profile - Header](#)
- [Parties Profile - Processing](#)
- [Parties Profile - Preferences](#)

### 5.2.3.1 Parties Profile - Header Screen

The following table describes NACHA-specific fields in the Parties profile **Header** screen.

Field Name	Description
Company ID	A company identifier, usually the company tax number, that matches the identifier in the batch header of incoming mass payment files. GPP uses this field and the party's ABA code during First in Chain Derivation.
Holding bank ABA	The ABA code of the holding FI that provides services to a customer. This field enables an FI to identify two or more customers with identical account numbers or company identifiers, but different holding FIs. GPP uses this field in combination with account number and/or company identifier to identify a customer during First in Chain Derivation.

For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

### 5.2.3.2 Parties Profile - Processing Screen

The following table describes NACHA-specific fields in the **Parties** profile **Processing** screen.

Field Name	Description
<b>Master Information</b>	
<b>Use as master party</b>	This field identifies the defined party as a Master Party. GPP uses this field to determine whether to generate children accounts for the defined party. GPP uses this field to enable Master and Child functionality.
<b>Parent master ID</b>	GPP uses this field, in conjunction with the <b>Use as master party</b> field, to define the master party identifier for all generated children parties. GPP uses this field to enable Master and Child functionality.
<b>Bulking Definitions for Outgoing Files (to Party)</b>	
<b>Bulking profile</b>	This field identifies the Bulking profile that defines files generated by GPP that are transmitted to the party.
<b>Suspense Account</b>	
<b>STP account derivation</b>	GPP uses this value to derive the default customer account number and continue message processing if the account transmitted in a message fails validation. This checkbox must be selected to enable STP processing of NACHA transactions

For more information, see the GPP Mass Payments Business Guide and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

### 5.2.3.3 Parties Profile - Preferences Screen

The following table describes NACHA-specific fields in the Parties profile **Preferences** screen.

Field Name	Description
<b>Batch duplicate check profile</b>	The batch-level Matching Check profile for the defined party. In NACHA message processing, GPP can generate batch-level error messages directly from the Matching Check profile defined for a specific customer, which enables an FI to define batch-level validations that meet specific customer requirements.

For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help. For specific setup information, see the [GPP Business Guide NACHA Basic Business Setup](#).

## 5.3 GPP Transaction Data Screen

The GPP **Transaction Data** screen is the main UI screen for creating and managing payment transactions. The screen enables authorized GPP users to create, update, and view all payment transaction fields, in addition to messages and information that are associated with an individual payment transaction. The screen also serves as a gateway that enables users to access payment transaction functionality and actions, such as submitting a transaction for processing.

GPP enables authorized users to access the following parts of the **Transaction Data** screen to view NACHA-specific information:

- [Transaction Data Screen – Main](#)

### 5.3.1 Transaction Data Screen – Main

The following table describes NACHA-specific fields in the main section of the **Transaction Data** screen.

Field Name	Description
<b>Basic Attributes</b>	
Standard entry class	Code that identifies the entries in a batch of transactions in a NACHA mass payment file
Transaction code	Code that identifies the NACHA transaction type
<b>References</b>	
Transaction ID	Unique transaction identifier
ID no./individual ID no.	Unique identifier
<b>Original Message</b>	
Discretionary data/payment type code	Code that identifies a transaction' discretionary data or payment type
<b>ORIG Transaction Participants</b>	
Company identification	Originating company identifier
Company name	Originating company name
Company entry description	Originating company entry description
Service class code	Code that identifies the type of entries in a batch
Company discretionary data	Originating company supplementary internal data
<b>Creditor (for Credit Transfers)</b>	
Account number	Creditor account number
Name	Creditor account name
<b>Debtor (for Direct Debits)</b>	
Account number	Debtor account number
Name	Debtor account name
<b>RDFI Info</b>	
ABA	Identifier used by FIs to identify specific financial institutions within the United States
Name	RDFI Name
<b>ODFI Info</b>	
ABA	Identifier used by FIs to identify specific financial institutions within the United States
Name	ODFI Name
<b>Addenda Info</b>	
Addenda type code	Code that identifies the type of addenda record and determines the addenda structure
Addenda sequence number	Sequence number of the related addenda record
Payment related information	Addenda contents

For more information about the [Transaction Data](#) screen, see the GPP Online Help.

## 5.4 System Parameters

The following table describes the system parameter used during NACHA message processing.

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

## 5.5 System Profiles

GPP setup uses system profiles to determine how GPP processes each payment message using the specific information associated with the message.

For more information about each system profile, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help.

The following table describes the GPP profiles with NACHA-specific setup implementations.

Profile	Description
<a href="#">Generate Transaction</a>	Used to determine the type of message generated for each payment transaction.
<a href="#">Matching Check</a>	Used to define Automatic Matching Algorithm and Matching Index Data Manipulation rules, which GPP uses to determine duplicate and corresponding files, batches, and messages. For NACHA-specific information, see <a href="#">Matching Check Profile</a> .

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Note: GPP supplies a full set of system profiles that are customized to an FI's specific requirements. Authorized GPP users can view system profiles but cannot update them.

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### 5.5.1 Matching Check Profile

GPP uses Matching Check profiles to define Automatic Matching Algorithm and Matching Index Data Manipulation rules, which GPP uses to determine duplicate and corresponding files, batches, and payment messages.

The NACHA-specific **Profile action** field in the [Matching Check](#) profile enables authorized GPP users to define an action enacted by GPP when GPP determines the profile as appropriate for a message.

The following table lists the available values, which depend on the defined Relation Type.

Relation Type	Available Values
Original File^Duplicated	One of the following: <ul style="list-style-type: none"><li>Ignore</li><li>Hold</li><li>Rejected</li></ul>

Relation Type	Available Values
Original Batch^Duplicated	One of the following: <ul style="list-style-type: none"> <li>• Ignore</li> <li>• Hold</li> <li>• Rejected</li> </ul>

For more information, see the [GPP Mass Payments Business Guide](#) and the GPP Online Help.

## 5.6 System Rules

GPP uses system rules to achieve flexibility in payment processing.

GPP has many types of system rules, and each type is used for a specific purpose. For example, GPP uses STP Validation rules to determine which payment messages are routed to specific queues for manual handling and which messages are processed to completion without the need for manual intervention.

Each GPP system rule has a set of conditions and a related action. The conditions refer to attributes of a message or other associated reference data in the system. GPP performs the defined action if a message meets the defined rule conditions.

GPP implements the same types of system rules irrelevant to the type of GPP system. For example, GPP implements Credit Account Enrichment business rules during message processing in both SEPA- and NACHA-based systems. The implementation differences are found in the conditions defined in the rules.

For more information about each system rule type, see the [GPP Mass Payments Business Guide](#).

The following table describes the GPP system rules with NACHA-specific setup implementations.

Rule Type	Description
Automatic Matching Algorithm	Rules that enable GPP to determine whether an incoming mass payment file or batch of transaction is a duplicate, which was previously received and processed by the system.
Business Flow Selection	Rules that enable GPP to determine the most appropriate business flow for each payment transaction message that enters the system.
Generate Transaction Selection	Rules that GPP uses to select the most appropriate Generate Transaction profile.
Group ID - Out	Rules that GPP uses to generate an Out File Group ID (OFID) and an Out Bulk Group ID (OGID).
Inbound Message Type Selection	Rules that GPP uses to set the message type of incoming messages.
Interface Selection	Rules that GPP uses to interact with external interfaces at specific stages during the message processing workflow.
Matching Check Profile Selection	Rules that enable GPP to determine the relevant Matching Check profile for each payment transaction.
Matching Index Message Refinement	Rules that GPP uses to create a unique index used to determine whether an incoming file or batch is a duplicate that was previously received by the system.
Message Workflow Determination -	Rules that enable GPP to control the message workflow

Rule Type	Description
Manual	in response to a GPP user action.
Message Workflow Determination - STP	Rules that enable GPP to control the message workflow and tailor it to meet specific customer requirements.
MOP Release Date Selection	Rules that enable GPP to determine the relevant MOP Release Date profile for each payment transaction.
Out Bulk Grouping ID Selection	Rules that enable GPP to determine the Group ID - Out data manipulation rule that the system uses to build the Out File Group ID (OFID) and Out Bulk Group ID (OGID).
Payment Classification	Rules that enable GPP to assign a message class to each incoming message.
Sub-Batch Grouping ID	Rules that GPP uses to generate a Unique Grouping ID (UGID), which GPP uses to consolidate payment messages into a single posting message.
Sub-Batch Grouping ID Selection	Rules that enable GPP to determine the relevant Sub-Batch Grouping ID rule that the system uses to generate a UGID.
STP Mapping	Rules that GPP uses to indicate whether an outgoing payment message includes a request for an Acknowledgment message.
STP Mapping Selection	Rules that GPP uses to select the most appropriate STP Mapping message refinement rule for each message.
STP Validation	Rules that GPP uses to validate message attributes for completeness and correctness.
Transaction Generation Mapping	Rules that GPP uses to populate message fields with required values for use by GPP when generating a message.
Transaction Generation Mapping Selection	Rules that GPP uses to select the most appropriate Transaction Generation Mapping rule for each message.
Value Date Determination	Rules that GPP uses to select the relevant Value Date Determination profile for each message.

Note: GPP supplies a full set of system rules that are customized to an FI's specific requirements. Authorized GPP users can view, but not update, system rules.

## 6 Message Data

### 6.1 Audit Trail

GPP NACHA transaction processing does not require specific Audit Trail entries.

### 6.2 Message Attributes

GPP NACHA message processing does not require specific message attributes.

### 6.3 NACHA Transaction Codes

The following table describes NACHA Transaction Codes and their corresponding GPP message types and message classes.

NACHA Transaction Code	Description	SEC Code	GPP Message Type	GPP Message Class
20	Reserved	Any	NACHA_CT	PAY
21	Automated Return or Notification of Change for original transaction code 22, 23, or 24	COR	NACHA_ADMIN	NAC
21	Automated Return or Notification of Change for original transaction code 22, 23, or 24	Non COR	NACHA_RTN	RCT
22	Automated Deposit	Any	NACHA_CT	PAY
23	Prenotification of Demand Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	DNE	NACHA_ADMIN	NAC
23	Prenotification of Demand Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	ENR	NACHA_ADMIN	NAC
23	Prenotification of Demand Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	Non DNE/ENR	NACHA_CT	PAY
24	Zero dollar with remittance data (for CCD and CTX entries only); Acknowledgment Entries (ACK and ATX entries only)	ACK/ATX	NACHA_ACK	NAC
24	Zero dollar with remittance data (for CCD and CTX entries only); Acknowledgment Entries (ACK and ATX entries only)	CCD/CTX	NACHA_CT	PAY
25	Reserved	Any	NACHA_DD	DD
26	Automated Return or Notification of Change for original transaction code 27, 28, or 29	COR	NACHA_ADMIN	NAC
26	Automated Return or Notification of Change for original transaction code 27, 28, or 29	Non COR	NACHA_RTN	RDD
27	Automated Payment	Any	NACHA_DD	DD
28	Prenotification of Demand Debit Authorization (non-dollar)	Any	NACHA_DD	DD
29	Zero dollar with remittance data (for CCD and CTX entries only)	CCD/CTX	NACHA_DD	DD
30	Reserved	Any	NACHA_CT	PAY
31	Automated Return or Notification of Change for original transaction code 32, 33, or 34	COR	NACHA_ADMIN	NAC
31	Automated Return or Notification of Change for original transaction code 32, 33, or 34	Non COR	NACHA_RTN	RCT
32	Automated Deposit	Any	NACHA_CT	PAY
33	Prenotification of Savings Credit	DNE	NACHA_ADMIN	NAC

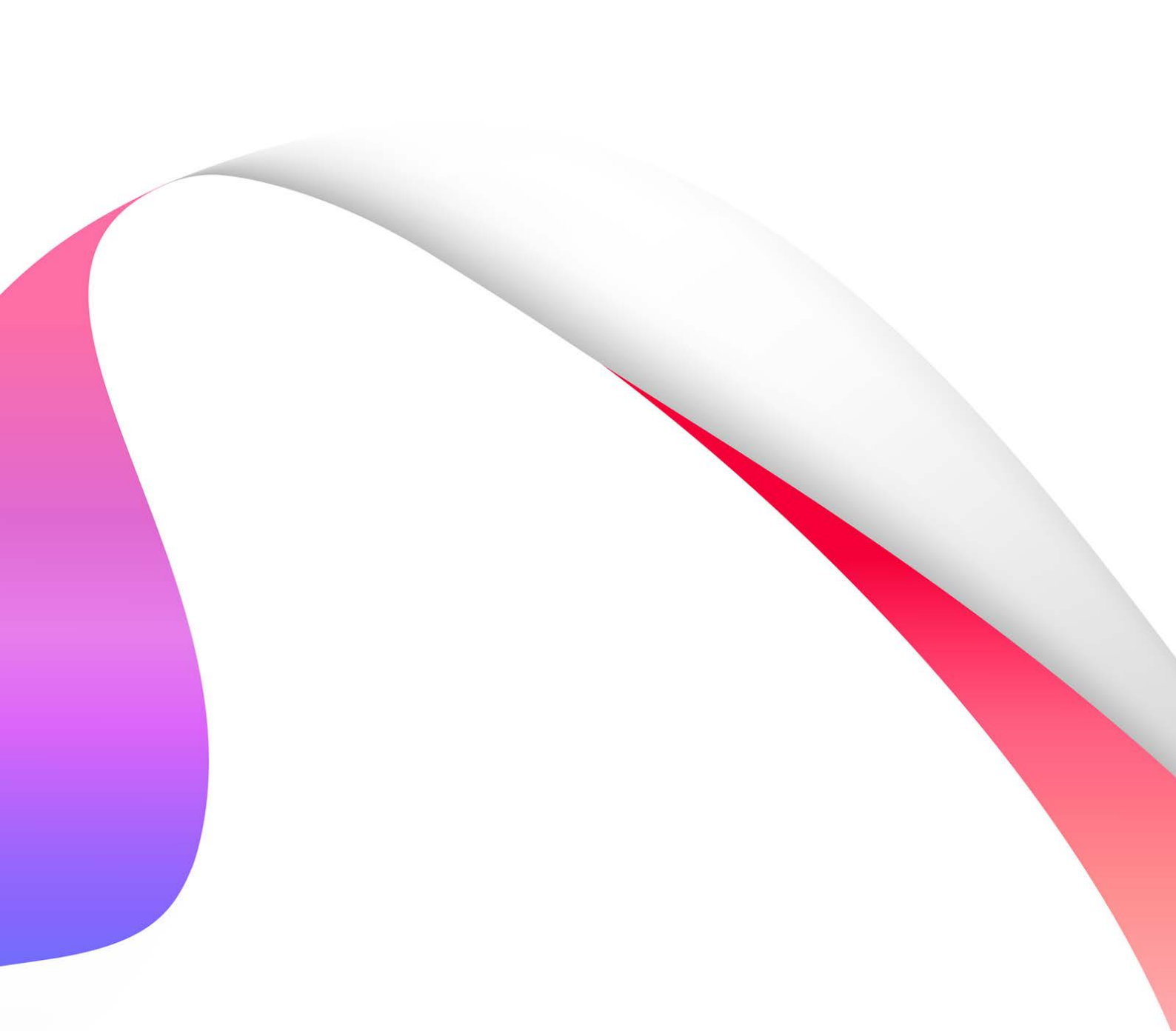
NACHA Transaction Code	Description	SEC Code	GPP Message Type	GPP Message Class
	Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)			
33	Prenotification of Savings Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	ENR	NACHA_ADMIN	NAC
33	Prenotification of Savings Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	Non DNE/ENR	NACHA_CT	PAY
34	Zero dollar with remittance data (for CCD and CTX entries only); Acknowledgment Entries (ACK and ATX entries only)	ACK/ATX	NACHA_ACK	NAC
34	Zero dollar with remittance data (for CCD and CTX entries only); Acknowledgment Entries (ACK and ATX entries only)	CCD/CTX	NACHA_CT	PAY
35	Reserved	Any	NACHA_DD	DD
36	Automated Return or Notification of Change for original transaction code 37, 38, or 39	COR	NACHA_ADMIN	NAC
36	Automated Return or Notification of Change for original transaction code 37, 38, or 39	Non COR	NACHA_RTN	RDD
37	Automated Payment	Any	NACHA_DD	DD
38	Prenotification of Savings Debit Authorization (non-dollar)	Any	NACHA_DD	DD
39	Zero dollar with remittance data (for CCD and CTX entries only)	CCD/CTX	NACHA_DD	DD
41	Automated Return or Notification of Change for original transaction code 42, 43, or 44	COR	NACHA_ADMIN	NAC
41	Automated Return or Notification of Change for original transaction code 42, 43, or 44	Non COR	NACHA_RTN	RCT
42	Automated General Ledger Deposit (Credit)	Any	NACHA_CT	PAY
43	Prenotification of General Ledger Credit Authorization (non-dollar)	Any	NACHA_CT	PAY
44	Zero dollar with remittance data (for CCD and CTX entries only)	CCD/CTX	NACHA_CT	PAY
46	Automated Return or Notification of Change for original transaction code 47, 48, or 49	COR	NACHA_ADMIN	NAC
46	Automated Return or Notification of Change for original transaction code 47, 48, or 49	Non COR	NACHA_RTN	RDD
47	Automated General Ledger Payment	Any	NACHA_DD	DD



NACHA Transaction Code	Description	SEC Code	GPP Message Type	GPP Message Class
	(Debit)			
48	Prenotification of General Ledger Debit Authorization (non-dollar)	Any	NACHA_DD	DD
49	Zero dollar with remittance data (for CCD and CTX only)	CCD/CTX	NACHA_DD	DD
51	Automated Return or Notification of Change for original transaction code 52, 53, or 54	COR	NACHA_ADMIN	NAC
51	Automated Return or Notification of Change for original transaction code 52, 53, or 54	Non COR	NACHA_RTN	RCT
52	Automated Loan Account Deposit (Credit)	Any	NACHA_CT	PAY
53	Prenotification of Loan Account Credit Authorization (non-dollar)	Any	NACHA_CT	PAY
54	Zero dollar with remittance data (for CCD and CTX entries only)	CCD/CTX	NACHA_CT	PAY
55	Automated Loan Account Debit (Reversals Only)	Any	NACHA_DD	DD
56	Automated Return or Notification of Change for original transaction code 55	COR	NACHA_ADMIN	NAC
56	Automated Return or Notification of Change for original transaction code 55	Non COR	NACHA_RTN	RDD

## Appendix A: Glossary

Term	Description
ABA	American Bankers Association
ABA Code	A nine-digit identifier used by FIs to identify specific FIs within the United States.
ACH CSM	Automated Clearing House Clearing and Settlement Mechanism A system that receives and sends files of transactions from and to participating parties, nets the amounts, and initiates settlement between FIs.
Credit Transfer	A general term for the transfer of funds initiated by an originator that transfers funds from the originator's account to a receiver's account.
DFI	Depository Financial Institution A bank or other financial institution.
Direct Debit	A general term for the transfer of funds initiated by an originator that transfers funds from a receiver's account to an originator's account.
DNE	Death Notification Entry An Administrative message sent by a government institution to a DFI that notifies the DFI that the recipient of a government benefit payment is deceased is not eligible to receive future payments.
EDI	Electronic Data Interchange The exchange of business documents in a standard electronic format between business partners, such as FIs.
EED	Effective Entry Date The actual date GPP receives a transaction or payment-related message.
IAT	International ACH Transaction A credit or debit ACH entry that transfers funds between an account in the United States and an account located outside the United States. An IAT message has a specific structure that differs from a non-IAT NACHA payment message.
NACHA	National Automated Clearing House Association The association responsible for the development, administration, and governance of the ACH Network, which serves as to electronically move funds and payment-related data between FIs in the United States.
NOC	Notification of Change An Administrative message sent by an RDFI to an ODFI informing the ODFI of incorrect or outdated data that requires updating in subsequent messages
ODFI	Originating Depository Financial Institution An originating bank or financial institution in a NACHA payment transaction.
RDFI	Receiving Depository Financial Institution A receiving bank or financial institution in a NACHA payment transaction.
SEC	Standard Entry Class A NACHA code that identifies the entries in a batch of transactions in a mass payment file.
STP	Straight-Through Processing: The concept that enables GPP to process payment transactions to completion without the need for manual intervention. STP enables shortened processing cycles, reduced settlement risk, and lower operating costs.



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