

# A DEEP DIVE ON PACS.004 & 002

MAY 2021

As part of the migration to ISO 20022, two new messages, the pacs.004.001.09 (pacs.004) the pacs.002.001.10 (pacs.002) are being introduced, which will deal with transaction returns and status reports, including rejections, respectively. This deep dive learning guide will shine a light on the use, flows and structures of both these messages.

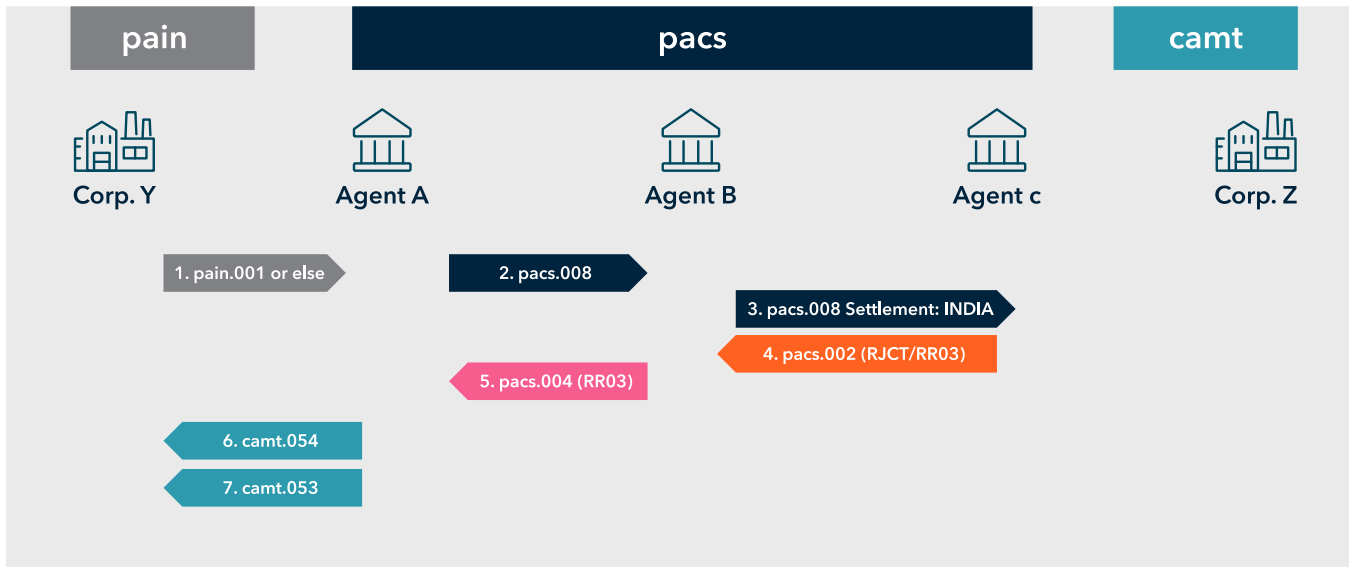
## **pacs.004: The Payment Return Message**

A pacs.004 message – otherwise known as the return message – is sent by an Agent to the previous Agent in instances where the payment instruction has already been settled, or when there is a problem processing it further on in the payment chain. For example, if the account to credit has been closed, the message can be used for return of any type of payment, including pacs.008 messages (for customer credit transfers), pacs.009 messages (for financial institution credit transfers) and pacs.010 message (for financial direct debits).

Today, there is no dedicated FIN equivalent of the pacs.004 message. To perform a return for the MT103 or MT202, an agent would return the original message to the sender, unchanged, using a return code in Field 72.

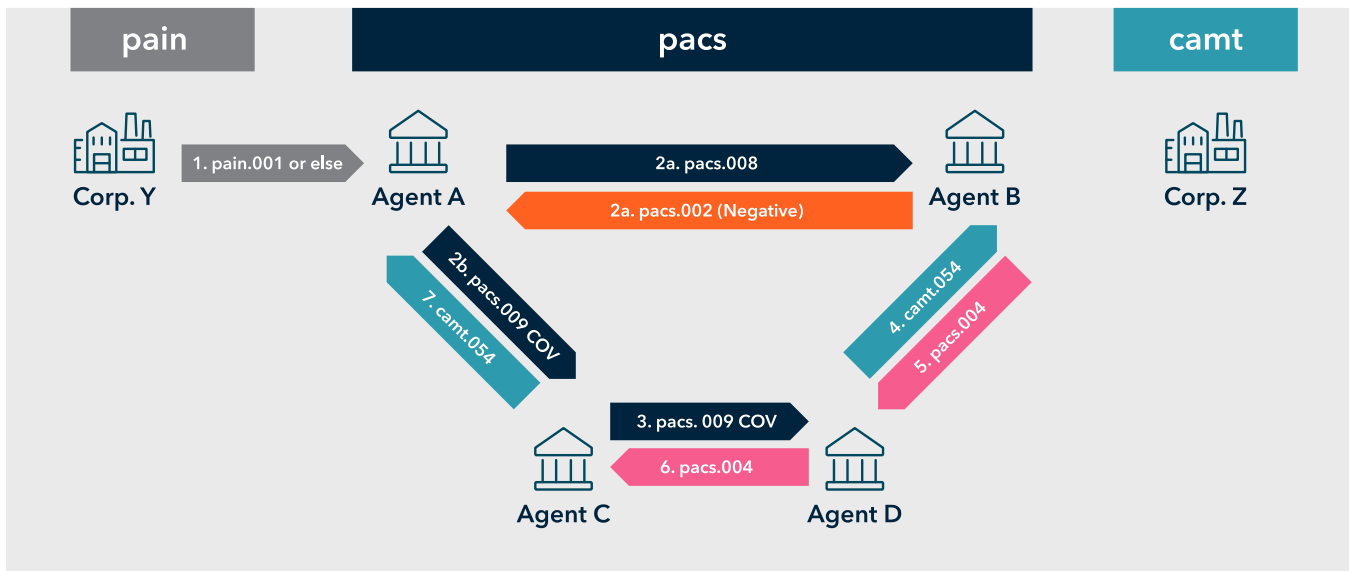
**Below we outline a typical return, in this case for a pacs.008 message (see Figure 1).**

1. Corporate Y sends a payment instruction (pain.001 or other) to their provider, Agent A.
2. Agent A passes along the payment instruction to the Instructed Agent, Agent B, using a pacs.008. The instruction is not yet settled, so Agent forwards the payment instruction to Agent B.
3. In this example, Agent B is able to process the instruction and so passes it to the next instructed Agent in the payment chain, Agent C.
4. Agent C receives this instruction but is unable to process it. Since they have not yet settled the instruction, Agent C rejects the message, which is sent back to Agent B in the form of a negative pacs.002 message.
5. Agent B receives the pacs.002 message, but as they have since settled the instruction, they return the payment transaction, which is sent to Agent A in the form of a pacs.004 message.
6. Agent A notifies their client of the credit confirmation (i.e., the returned payment) using a camt.054 message.
7. Agent A may also provide the client with details of both the initial debit that occurred on the client's account as well as the credit upon return via the camt.053 statement.

**Figure 1: Return of a pacs.008 message**

The return of a pacs.009 message would occur in much the same way as the above example. However, when it comes to the return of a pacs.009 COV, the process is slightly different, as outlined below (see Figure 2):

1. Corporate Y sends a payment instruction (pain.001 or other) to their provider, Agent A.
2. As Agent A and Agent B do not maintain an account in the currency being used for the transaction, reimbursement agents – represented by Agent C and Agent D – are needed to execute the transaction. Agent A sends a pacs.008 message to Agent B to notify them that they will receive the funds through the reimbursement agents. At the same time Agent A sends a pacs.009 COV message to Agent C.
3. Agent B cannot accept the pacs.008 message (in such instances where Corporate Z is not their customer, for example) and, since settlement has not yet taken place, rejects it using a negative pacs.002 message, which is sent to Agent A. Meanwhile, the pacs.009 COV message follows its route from Agent C to Agent D.
4. Agent D then initiates the confirmation of credit in the form of the camt.054, which is sent on to Agent B.
5. Since Agent B had rejected the pacs.008 message they now must return the funds. To do so, Agent B follows the exact same routing as the initial pacs.009 COV message. As such, Agent B sends a pacs.004 message to Agent D.
6. Agent D then sends a pacs.004 message to Agent C.
7. Agent C will then inform Agent A about the credit back to its account using the camt.054 message.

**Figure 2: Return of a pacs.009 COV**

## Breaking Down the pacs.004 Message

The pacs.004 message breaks down into two main parts:

- **Group Header:** the set of characteristics shared by all individual transactions included in the message.
- **Transaction Information:** information concerning the original transactions, to which the return message refers. This is limited to one transaction for CBPR+ and HVPS+.  
(Note: There is a Supplementary Data block available in the ISO 20022 messages that are never used in CBPR+ or by RTGS systems).

The Group Header and Transaction Information blocks contain a number of different components/elements that are identical to those used in the pacs.008 and the pacs.009. These are Identification of Parties, Identification of Agents, Account Structure and Settlement Method. Please refer to the pacs.008 training guide for the details.

## Identifications

pacs.004 has seven identification elements, located under the Group Header and transaction information levels.

### Group Header:

- **Message Identification:** provides an identification for the whole pacs.004 message.

### Transaction Information:

- **Return Identification:** identifies the returned transaction and remains unchanged end-to-end. It has no FIN equivalent.
- **Original Instruction Identification:** the equivalent to the Field 20 in an MT103 or MT 202 message. It is temporarily limited to 16 characters to facilitate a smooth translation between the two formats. This is a point-to-point element, meaning that every agent in the payment chain is able to add its new instruction identification. However, in the pacs.004 message it will have to contain the exact same instruction ID as the message it is being returned, i.e. pacs.008 or pacs.009
- **Original End-to-End Identification:** the equivalent to the Field 21 in a MT202 COV and remains unchanged end-to-end. As above, the pacs.004 message will have to contain the exact same instruction ID as the message it is being returned.

- **Original Transaction Identification:** contains the original transaction identification and remains unchanged end-to-end.
- **Original UETR:** contains the UETR of the message being returned and remains unchanged end-to-end.
- **Original Clearing System References:** allocated by an RTGS system after settlement. If available, the original reference from the message being returned needs to be transported in the pacs.004 message (between the RTGS and the Direct Participant only).

## Original Group Information

This Original Group Information block transports three elements that enable easy identification of the transaction being returned, thereby facilitating straightforward reconciliation.

- **Original Message Identification:** transports the original message identification, which is available in the message being returned.
- **Original Message Name Identification:** transports the full name of the message format being returned, including the variant and version number (for example pacs.008.001.08).
- **Original Creation Date Time:** transports the original creation date and time of the message being returned.

## Amounts

pacs.004 has a number of amount elements:

- **Transaction Information/Original Interbank Settlement Amount:** specifies the interbank settlement amount of the instruction being returned.
- **Transaction Information/Returned Interbank Settlement Amount:** specifies the interbank settlement amount of the return transaction (new amount).
- **Transaction Information/Returned Instructed Amount:** specifies the instructed amount of the return transaction (new amount).
- **Transaction Information/Charges Information/Amount:** specifies charges applying to the return transaction.
- **Original Transaction Reference/Interbank Settlement Amount:** specifies the interbank settlement amount of the instruction being returned
- **Original Transaction Reference/Amount/Instructed Amount:** specifies the instructed amount of the instruction being returned.
- **Original Transaction Reference/Amount/Equivalent Amount:** specifies the equivalent amount of the instruction being returned (mostly used in Direct Debit scenarios)

## Return Reason Information

Return Reason Information is a block of information that is included in the pacs.004 message to increase transparency and automation. In FIN messages this same information is contained in Field 72.

- **Return Reason Information/Originator:** a structured block for indicating the party that has issued the return.
- **Return Reason Information/Reason/Code:** provides the reason for the return in a coded form, since proprietary or free text is not allowed under CBPR+. These codes must be contained in the official ISO code list published on [www.iso.org](http://www.iso.org).
- **Return Reason Information/Additional Information:** contains additional details about the return in free text format.

## Return Chain

As previously mentioned, when returning an MT103 or an MT202, the original message is sent with a return code inserted into Field 72. This, however, creates a lot of confusion, as it is often not clear to the receiver whether those listed in the message are the parties involved in the original message or the parties involved in the return message.

The pacs.004 message resolves this confusion by ensuring that the parties involved in the original message are indicated in the Original Transaction Block. It also includes a new block of information known as the Return Chain, which indicates the roles of the parties involved in the return transaction. This is extremely important as in some cases (such as when the cutoff time is approaching) the return will have to follow a different route to the original message.

The Return Chain includes the following actors: Ultimate Debtor, Debtor, Initiating Party, Debtor Agent, Previous Instructing Agent 1, Previous Instructing Agent 2, Previous Instructing Agent 3, Intermediary Agent 1, Intermediary Agent 2, Intermediary Agent 3, Creditor Agent, Creditor and Ultimate Creditor.

## pacs.002: the Status Report message

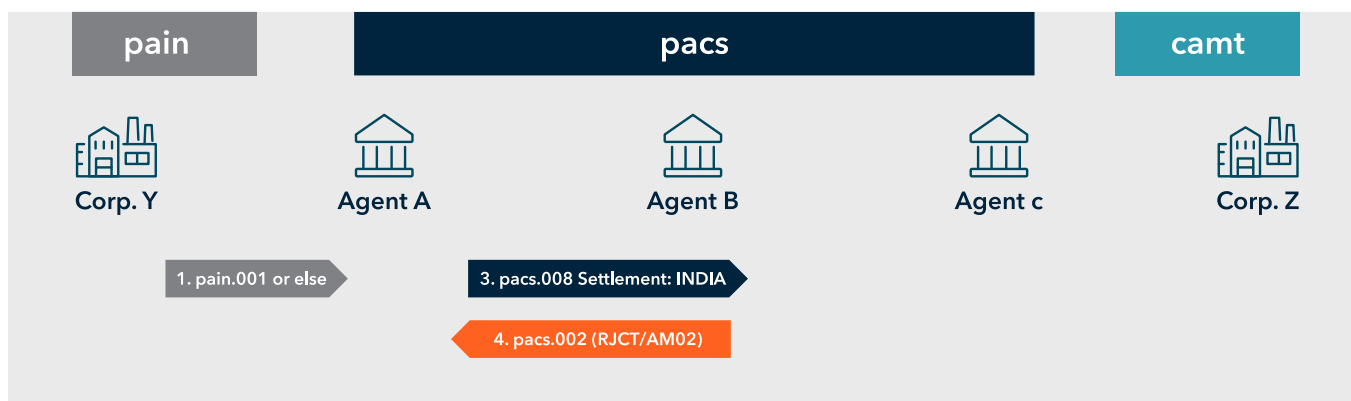
The pacs.002 message – known as the Status Report message – is sent by an instructed agent to the previous party in the payment chain. It is used to inform this party about the positive or negative outcome of a payment instruction. It is also used to report on a pending instruction.

Today, there is no dedicated FIN equivalent of the pacs.002 message. To perform a rejection of an MT103 or MT202, an agent would return the original message to the sender using the reject code in Field 72.

When used as a rejection message, the pacs.002 message is sent when the payment instruction has not yet been settled and there is a problem processing it further on in the payment chain. Below we outline a typical rejection message (see Figure 3).

1. Corporate Y sends a payment instruction (pain.001 or other) to their provider, Agent A.
2. Agent A takes the payment instruction and passes it on as a pacs.008 message to the Instructed Agent, Agent B. The instruction is not yet settled.
3. Agent B receives this instruction but is unable to process it. As the instruction has not yet been settled, Agent B rejects the payment transaction, which is sent back to Agent A in the form of a negative pacs.002 message.

**Figure 3: Rejection of a pacs.008 message**



# Breaking Down the pacs.002 Message

The pacs.002 message breaks down into two main parts:

- **Group Header:** the set of characteristics shared by all individual transactions included in the status report.
- **Transaction Information:** information concerning the original transactions, to which the status message refers. This is limited to one transaction for CBPR+ and HVPS+.
 

Note: There is a Supplementary Data block available in the ISO 20022 messages that are never used in CBPR+ or by RTGS systems).

The Group Header and Transaction Information contain a number of different elements, with the most important outlined below:

## Original Group Information

Like the pacs.004 message, the Original Group Information block transports three elements that enable easy identification of the transaction being rejected, thereby facilitating straightforward reconciliation.

- **Original Message Identification:** transports the original message identification, which is available in the message being returned.
- **Original Message Name Identification:** transports the full name of the message format being returned, including the variant and version number (for example pacs.008.001.08).
- **Original Creation Date Time:** transports the original creation date and time of the message being returned.

## Identifications

Like the pacs.004 message, the pacs.002 has seven identification elements, with the key differences between the two highlighted below in blue:

### Group Header:

- Message Identification

### Transaction information:

- **Status Identification: identifies the reported status of a transaction. This is not used in CBPR+.**
- Original Instruction Identification.
- Original End-to-End Identification.
- Original Transaction Identification.
- Original UETR.
- **Original Clearing System References: contains a new clearing system reference for the pacs.002 instead of a clearing system reference for the message being rejected.**

## Transaction Status

This specifies the status of a transaction in coded form. The most important use of the pacs.002 is the rejection, which is mandatory as per CBPR+ rules – meaning it is the only way the sender should be informed that the transaction has been rejected.

- **Rejected (RJCT):** indicates that the payment transaction has been rejected. This can be sent by any Agent to the previous Agent in the chain, prior to settlement

There is also a series of positive status codes. Unlike the rejection, these status updates do not block the transaction from being settled. Instead, they indicate the different phases that the transaction might need to go through. The use of these different status codes is bilaterally agreed between the banks:

- **Received (RCVD):** indicates that the payment initiation has been received by the reporting agent. This can be sent by any Agent to the previous Agent as confirmation that their Customer Credit Transfer initiation request has been received.
- **AcceptedTechnicalValidation (ACTC):** indicates that authentication has been successful. This can be sent by any Agent in the chain to the previous Agent to confirm that the payment initiation has been accepted for execution.
- **AcceptedCustomerProfile (ACCP):** indicates that the customer profile check was successful prior to the technical validation. This can be sent by any Agent in the chain.
- **AcceptedWithChange (ACWC):** indicates the instruction is accepted but a change will be made, such as date or remittance not sent. This can be sent by any Agent in the chain to the previous Agent to confirm the payment is accepted following amendments.
- **AcceptedSettlementInProcess (ACSP):** indicates that all preceding checks, such as technical validation and customer profile, were successful. This can be sent by any Agent in the chain to confirm that the payment initiation has been accepted for execution.
- **AcceptedSettlementCompleted (ACSC):** indicates that settlement has been completed. This can be sent by any Agent in the chain to confirm settlement of a payment message leg.
- **AcceptedWithoutPosting (ACWP):** indicates that the payment instruction included in the credit transfer is accepted without being posted to the creditor customer's account. This can be sent by the Creditor Agent to the previous Agent to confirm the acceptance of payment without settlement on the creditor's account.
- **AcceptedSettlementCompleted (ACCC):** indicates that the settlement on the creditor's account has been completed. This can be sent by the Creditor Agent.
- **Pending (PDNG):** indicates that the payment initiation has been received by the receiving Agent. This can be sent by any agent in the payment chain to the previous Agent as an interim status while other validations are performed.

## Status Reason Information

Just as the pacs.004 has a block for Return Reason Information, the pacs.002 has a block for Status Reason Information.

- **Status Reason Information/Originator:** the party that issued the status.
- **Status Reason Information/Reason/Code:** the reason for the status report. If codes are used, they must be contained in the ISO code list.
- **Status Reason Information/Additional Information:** additional details about the reason for the status report.

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