# Credit Transfer

See also API reference for Credit Transfer **Check API** >

## Introduction

**INFO**

The terminology **Phase 1** is being used interchangeably to refer to services that are originally built for DuitNow Transfer i.e. Account Enquiry, Credit Transfer and National Addressing Database (NAD) related. QR, P2P, JomPAY and etc are built as overlay services on top of Phase 1. Hence these overlay services will adopt similar architecture and user will be asked to refer to Phase 1 sections throughout our documentations

Instant Transfer is a Credit Transfer service in which the customer sends the payment request and confirms the recipient's name before the actual credit transfer is performed. This payment request is a two-step process where an account enquiry request is sent to the Receiving Participant to request for the recipient's name, and upon successful retrieval of the Account Name, displays it to the customer for confirmation. Once confirmation is received, the Originating Participant then debits customer account and sends the actual Credit Transfer request to the Receiving Participant for processing

DuitNow Transfer will be marketed for use by the Participants' Retail and Corporate customers and invoked from the Participants' Internet and Mobile Banking channels

## Overlay Services

Overlay services are services that augment a payment service by building on top of Real-time Retail Payments Platform (RPP) existing infrastructure to deliver enhanced value to the participants within Malaysia payment network

## What are Overlay Services?

In RPP, we have built the below overlay services to improve the workflows and customer experience in facilitating different payment use cases

- QR payment for both domestic and cross border
- Bill payment via JomPAY
- Request-to-pay for end user to request or make a payment within the eCommerce space

Refer to the respective service sections on our product offerings

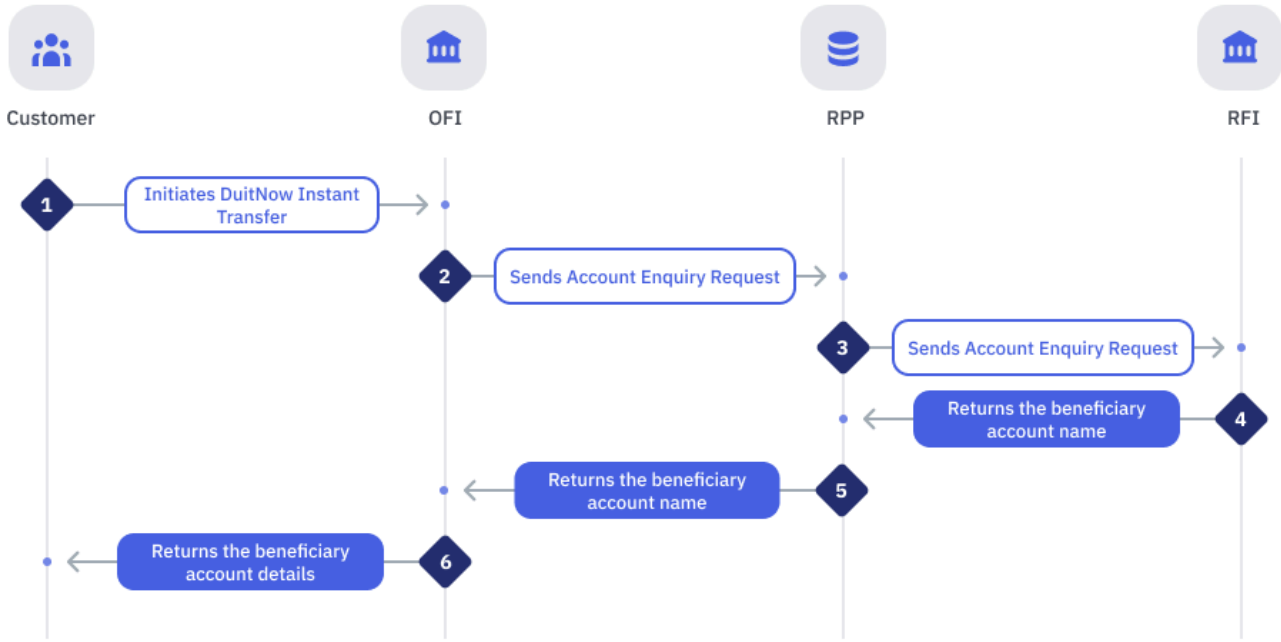
## Account Enquiry

**NOTE**

Account resolution enquiry is used to determine if particular beneficiary account is valid and ready to receive payment. There are many situations in which you may need to know if a beneficiary account provided by customer is valid before accepting payment request. Examples include:

- Customer needs to validate the beneficiary account name before making final confirmation to the payment request
- Customer needs to ensure the recipient details before making top-up to their eWallet account

## Successful End-to-End Account Enquiry Flow




| Step | Sender | Receiver | Process |
|---|---|---|---|
| 1 | Customer | OFI | Customer logs into Online Banking or Mobile Banking app and initiates a DuitNow Instant Transfer |
| 2 | OFI | RPP | OFI performs the following:<br>• Authorize and validate the Instant Transfer transaction<br>• Any **internal validations**<br><br>If all validations are successful:<br>• Send Account Enquiry request |
| | | | |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| 3 | RPP | RFI | RPP performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If any of the Message Validations fails:<br>• Return a **REJECT** response to OFI<br><br>If any of the Business Validations fails:<br>• Return a **NEGATIVE** response to OFI<br><br>If all validations are successful:<br>• Send Account Enquiry message request |

| Step | Sender | Receiver | Process |
|---|---|---|---|
| 4 | RFI | RPP | RFI performs the following:<br>• **Message Validations**<br>• **Business Validations**<br>• **Beneficiary Account Validations**<br><br>If any of the Message Validations fails:<br>• Send a **REJECT** response<br><br>If any of the Business Validations fails:<br>• Send a **NEGATIVE** response<br><br>If any of the Beneficiary Account Validations fails:<br>• Send a **NEGATIVE** response<br><br>If all validations are successful:<br>• Send Account Enquiry message response with the necessary beneficiary account information |
| 5 | RPP | OFI | RPP performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If any of the validations are not successful:<br>• Send a **NEGATIVE/REJECT** response<br><br>If all validations are successful:<br>• Send Account Enquiry message response with the necessary beneficiary account information |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| 6 | OFI | Customer | OFI performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If all validations are successful:<br>• If **SUCCESSFUL** response is received:<br>  ◦ Display the Beneficiary Account Name to the Customer for payment confirmation<br><br>• If **UNSUCCESSFUL** response is received:<br>  ◦ Display an error message to the Customer |

## Exception Flows

### RPP Failed to Receive Request from OFI

| Condition | Actions | Alternatives |
| --- | --- | --- |
| OFI sent a request to RPP. However, RPP did not receive the request<br><br>As no response is received from RPP after x period of time, OFI eventually timeout | OFI shall:<br>• Timeout<br>• Display an appropriate error message to the Customer<br>• Stop processing | If retry is configured, OFI shall:<br>• If retry count has not exceeded the maximum number of retries<br>◦ Send a repeat request<br>◦ Continue processing<br><br>• If retry count has exceeded the maximum number of |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| | | retries<br>◦ Display an error message to Customer<br>◦ Stop processing |

## OFI Failed to Receive Response from RPP

| Condition | Actions | Alternatives |
| --- | --- | --- |
| OFI sent a request to RPP, and RPP did receive the request. However, RPP response did not reach to OFI<br><br>As no response is received from RPP after x period of time, OFI eventually timeout | OFI shall:<br>• Timeout<br>• Display an appropriate error message to the Customer<br>• Stop processing | If retry is configured, OFI shall:<br>• If retry count has not exceeded the maximum number of retries<br>  ◦ Send a repeat request<br>  ◦ Continue processing<br>• If retry count has exceeded the maximum number of retries<br>  ◦ Display an error message to Customer<br>  ◦ Stop processing |

## RFI Failed to Receive Request from RPP

| Condition | Actions | Alternatives |
| --- | --- | --- |
| RPP sent a request to RFI. However, RFI did not receive the request from RPP<br><br>As no response is received from RFI after x period of time, RPP eventually timeout | RPP shall:<br>• Timeout<br>• Return a NEGATIVE response with timeout reason<br><br>OFI shall:<br>• Display an appropriate error message to the Customer<br>• Stop processing | - |

## RPP Failed to Receive Response from RFI

| Condition | Actions | Alternatives |
| --- | --- | --- |
| RPP sent a request to RFI, and RFI did receive the request. However, RFI response did not reach to RPP<br><br>As no response is received from RFI after x period of time, RPP eventually timeout | RPP shall:<br>• Timeout<br>• Return a NEGATIVE response with timeout reason<br><br>OFI shall: | - |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| | • Display an appropriate error message to the Customer<br>• Stop processing | |

## Credit Transfer

**NOTE**

A Credit Transfer is a push payment transaction of an amount from a bank account (the debtor account) to a beneficiary account (the creditor) that can be invoked from the Participants' various channels or touchpoints within their ecosystem. Some of these touchpoints may be Internet Banking, Mobile Banking, Branches, Kiosks and etc

The Originating Participant initiates a payment instruction that pushes a credit to the Receiving Participant. The instruction must be sent one at a time to RPP (in case of Bulk Credit Transfers)

## Successful End-to-End Credit Transfer Flow

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| 1 | Customer | OFI | Customer verifies the beneficiary account details and confirms on the payment |
| 2 | OFI | RPP | OFI performs the following:<br>• Authorize and validate the Instant Transfer transaction<br>• Any **internal validations**<br>• Debit source account<br><br>If all validations are successful: |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| | | | • Send Credit Transfer message request |
| 3 | RPP | RFI | RPP performs the following:<br>• **Message Validations**<br>• **Business Validations**<br>• **Liquidity Position Validations**<br><br>If any of the Message Validations fails:<br>• Return a **REJECT** response to OFI<br><br>If any of the Business Validations fails:<br>• Return a **NEGATIVE** response to OFI<br><br>If any of the Liquidity Position Validations fails:<br>• Return a **NEGATIVE** response to OFI<br><br>If all validations are successful:<br>• Check if an Account Enquiry request has been made in prior within a stipulated time interval<br>• If Account Enquiry is NOT found (Participant is expected to always initiate an Account Enquiry prior to Credit Transfer. This control above is only meant for RPP internal handling under certain circumstances):<br>◦ Send Account Enquiry message request by using the same message but changing the transaction code from Credit Transfer to Account Enquiry<br>◦ Go to Step 4<br><br>• If Account Enquiry is found: |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| | | | ◦ Send Credit Transfer message request<br>◦ Go to Step 7 |
| **CONDITIONAL ACCOUNT ENQUIRY** | | | |
| 4 | RFI | RPP | RFI performs the following:<br>• **Message Validations**<br>• **Business Validations**<br>• **Beneficiary Account Validations**<br><br>If any of the Message Validations fails:<br>• Send a **REJECT** response<br><br>If any of the Business Validations fails:<br>• Send a **NEGATIVE** response<br><br>If any of the Beneficiary Account Validations fails:<br>• Send a **NEGATIVE** response<br><br>If all validations are successful:<br>• Send Account Enquiry message response with the necessary beneficiary account information |
| 5 | RPP | OFI | RPP performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If any of the Message Validations fails: |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| | | | • Return a **REJECT** response to OFI<br><br>If any of the Business Validations fails:<br>• Return a **NEGATIVE** response to OFI<br><br>If all validations are successful:<br>• Check the message response<br>• If response is **SUCCESSFUL**<br>  ◦ Send Credit Transfer message request<br>  ◦ Go to Step 7<br>• If response is **UNSUCCESSFUL**<br>  ◦ Return a **NEGATIVE** response to OFI<br>  ◦ Credit Transfer will not be triggered |
| 6 | OFI | Customer | OFI performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If all validations are successful:<br>• If **SUCCESSFUL** response is received:<br>  ◦ Display the Beneficiary Account Name to the Customer for payment confirmation<br>• If **UNSUCCESSFUL** response is received:<br>  ◦ Display an error message to the Customer |

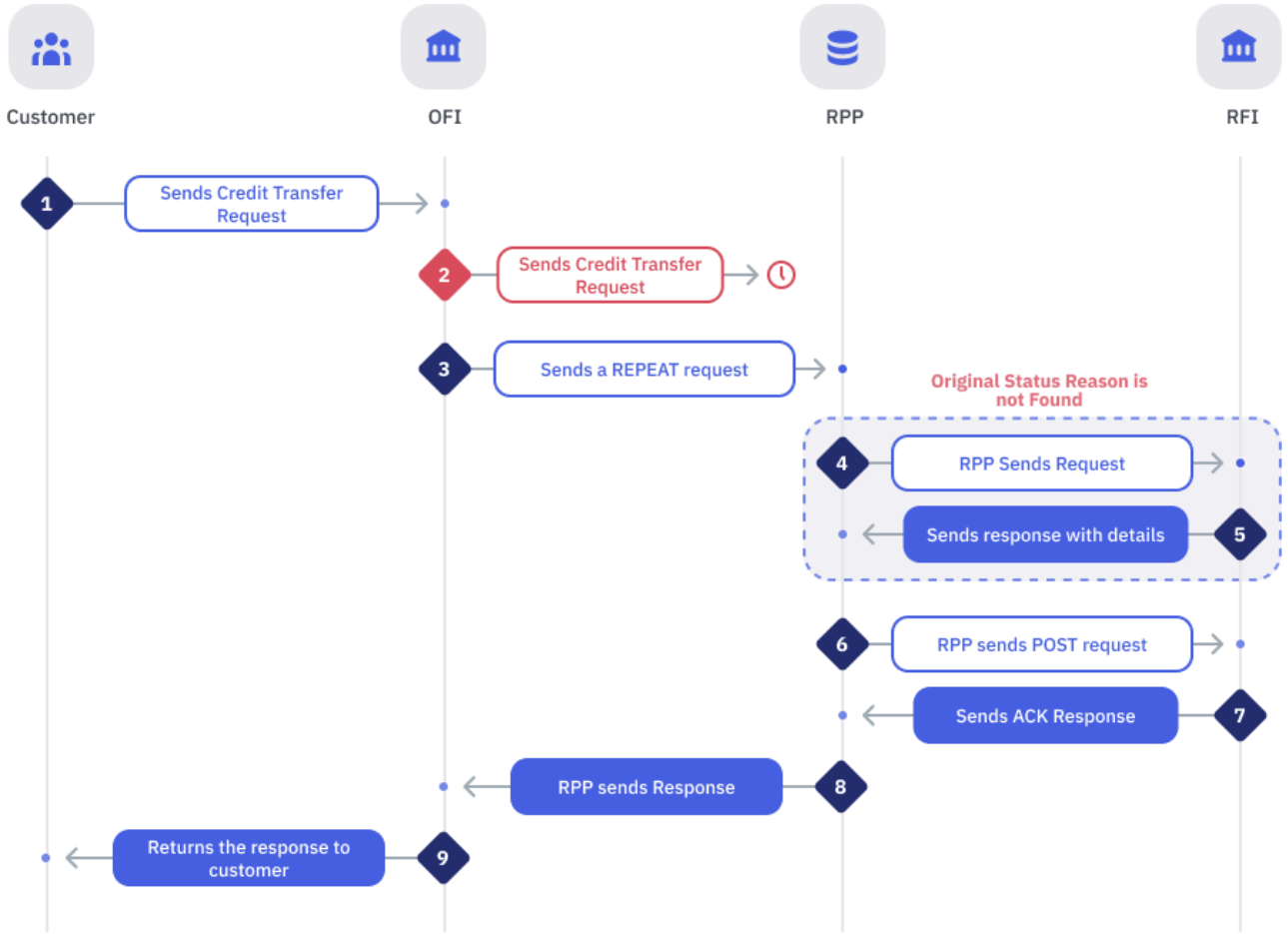
| Step | Sender | Receiver | Process |
|---|---|---|---|
| **CREDIT TRANSFER** | | | |
| 7 | RFI | RPP | RFI performs the following:<br>• **Message Validations**<br>• **Business Validations**<br>• **Beneficiary Account Validations**<br><br>If any of the Message Validations fails:<br>• Send a **REJECT** response<br><br>If any of the Business Validations fails:<br>• Send a **NEGATIVE** response<br><br>If any of the Beneficiary Account Validations fails:<br>• Send a **NEGATIVE** response<br><br>If all validations are successful:<br>• Send Credit Transfer with successful message response<br><br>**Notes:**<br>When a REPEAT request is received by the RFI from RPP:<br>• If the original transaction has been posted successfully by the RFI, RFI will respond with the original transaction response instead of rejecting the REPEAT request as duplicate<br>• If the original transaction has not been processed previously, RFI will process the transaction and return the appropriate response to RPP |

| Step | Sender | Receiver | Process |
|---|---|---|---|
| 8 | RPP | OFI | RPP performs the following:<br>• **Message Validations**<br>• **Business Validations**<br><br>If any of the Message Validations fails:<br>• Send a **REJECT** response<br><br>If any of the Business Validations fails:<br>• Send a **NEGATIVE** response<br><br>If all validations are successful:<br>• Update liquidity and settlement positions of both OFI and RFI<br>• Send Credit Transfer message response<br><br>**Notes:**<br>If the signature received from RFI could not be verified:<br>• RPP will send an ACCEPTED (signature error) response to the OFI if the RFI responds with a SUCCESSFUL transaction status<br>• RPP will send an actual REJECT response to the OFI if RFI responds with a REJECT transaction status<br><br>This should take care of any message manipulation done within the data when a signature could not be verified |
| 9 | OFI | Customer | OFI performs the following:<br>• **Message Validations**<br>• **Business Validations** |

| Step | Sender | Receiver | Process |
| --- | --- | --- | --- |
| | | | If all validations are successful:<br>• If **SUCCESSFUL** response is received:<br>  ◦ Display the final payment status to the Customer<br>• If **UNSUCCESSFUL** response is received:<br>  ◦ Display an error message to the Customer<br>  ◦ Perform a debit reversal on the Customer account (if necessary) |

## Exception Flows

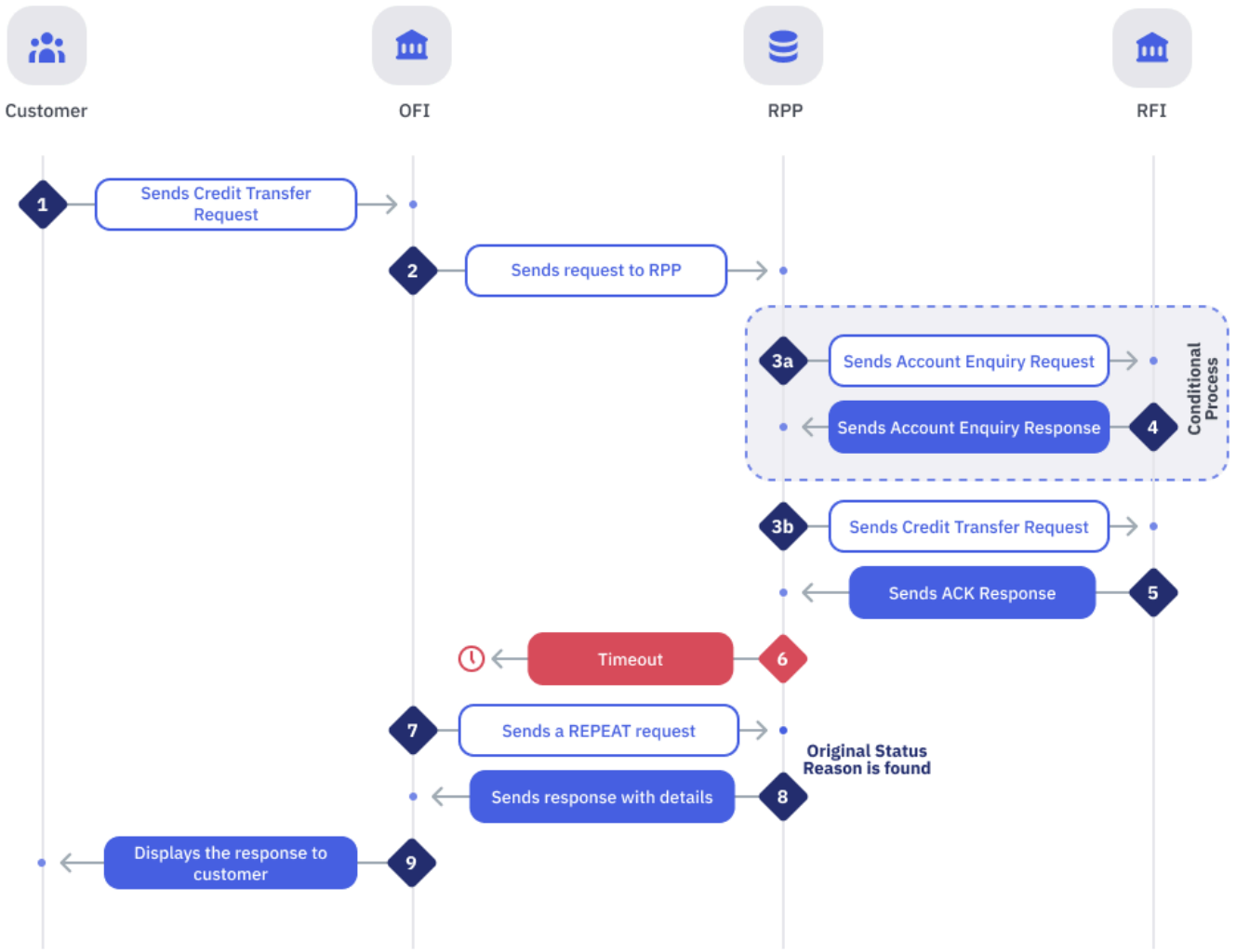
### RPP Failed to Receive Request from OFI




| Condition | Actions | Alternatives |
| --- | --- | --- |
| OFI sent a request to RPP. However, RPP did not receive the request<br><br>As no response is received | RPP shall:<br>• Timeout<br>• Return a NEGATIVE response with timeout reason<br><br>OFI shall: | If retry is configured, OFI shall:<br>• If retry count has not exceeded the maximum number of retries<br>◦ Send a repeat request |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| from RPP after x period of time, OFI eventually timeout | • Display an appropriate error message to the Customer<br>• Stop processing<br>• Initiate a Transaction Enquiry separately to confirm on the payment status | ◦ Continue processing<br>• If retry count has exceeded the maximum number of retries<br>◦ Display an ACCEPTED status message to Customer<br>◦ Stop processing<br>◦ Confirm the payment manually via Back Office portal |

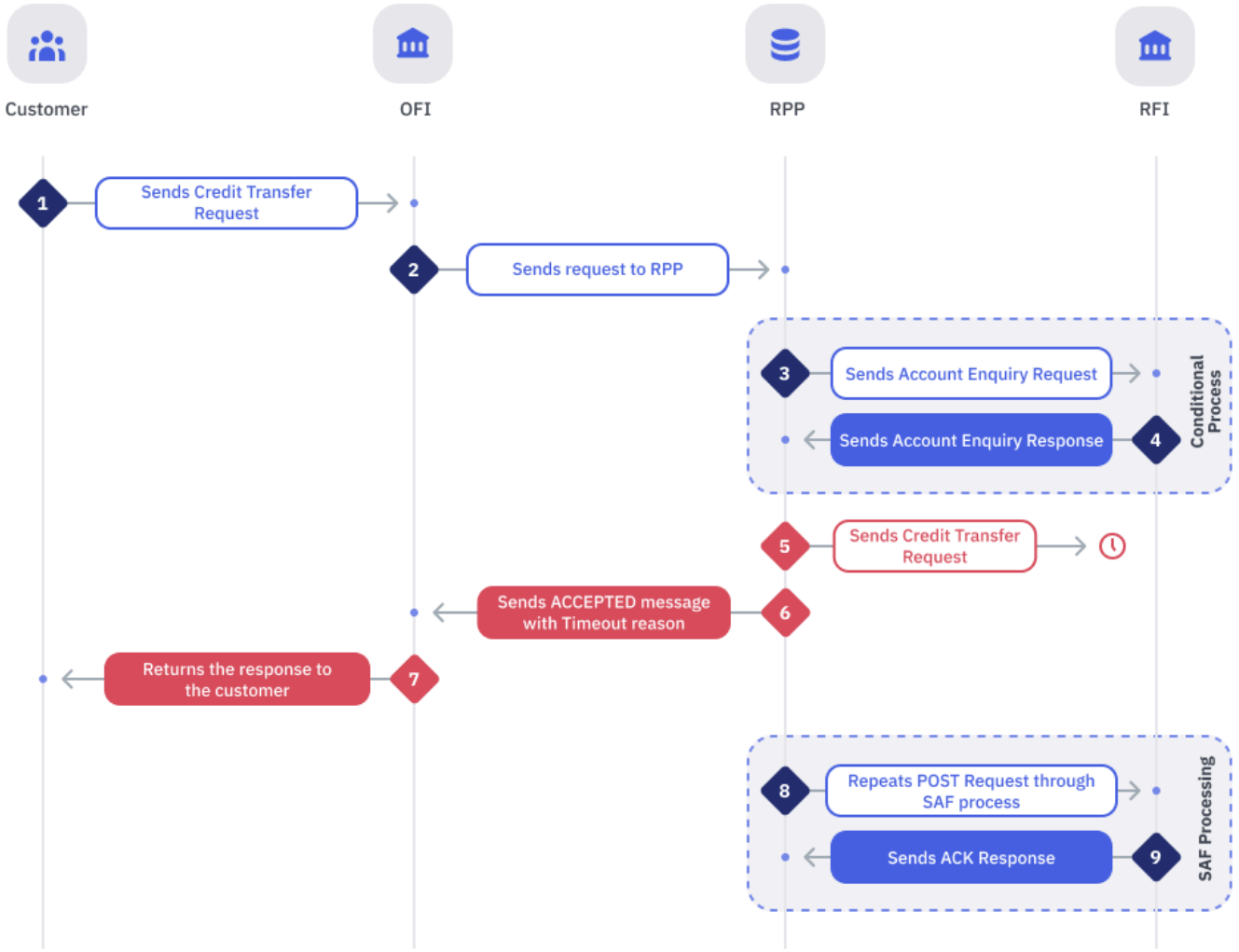
## OFI Failed to Receive Response from RPP




| Condition | Actions | Alternatives |
| --- | --- | --- |
| OFI sent a request to RPP, and RPP did receive the request. However, RPP response did not reach to OFI | RPP shall:<br>• Timeout<br>• Return a NEGATIVE response with timeout | If retry is configured, OFI shall:<br>• If retry count has not exceeded the maximum number of retries |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| As no response is received from RPP after x period of time, OFI eventually timeout | reason<br><br>OFI shall:<br>• Display an appropriate error message to the Customer<br>• Stop processing<br>• Initiate a Transaction Enquiry separately to confirm on the payment status | ◦ Send a repeat request<br>◦ Continue processing<br><br>• If retry count has exceeded the maximum number of retries<br>◦ Display an ACCEPTED status message to Customer<br>◦ Stop processing<br>◦ Confirm the payment manually via Back Office portal |

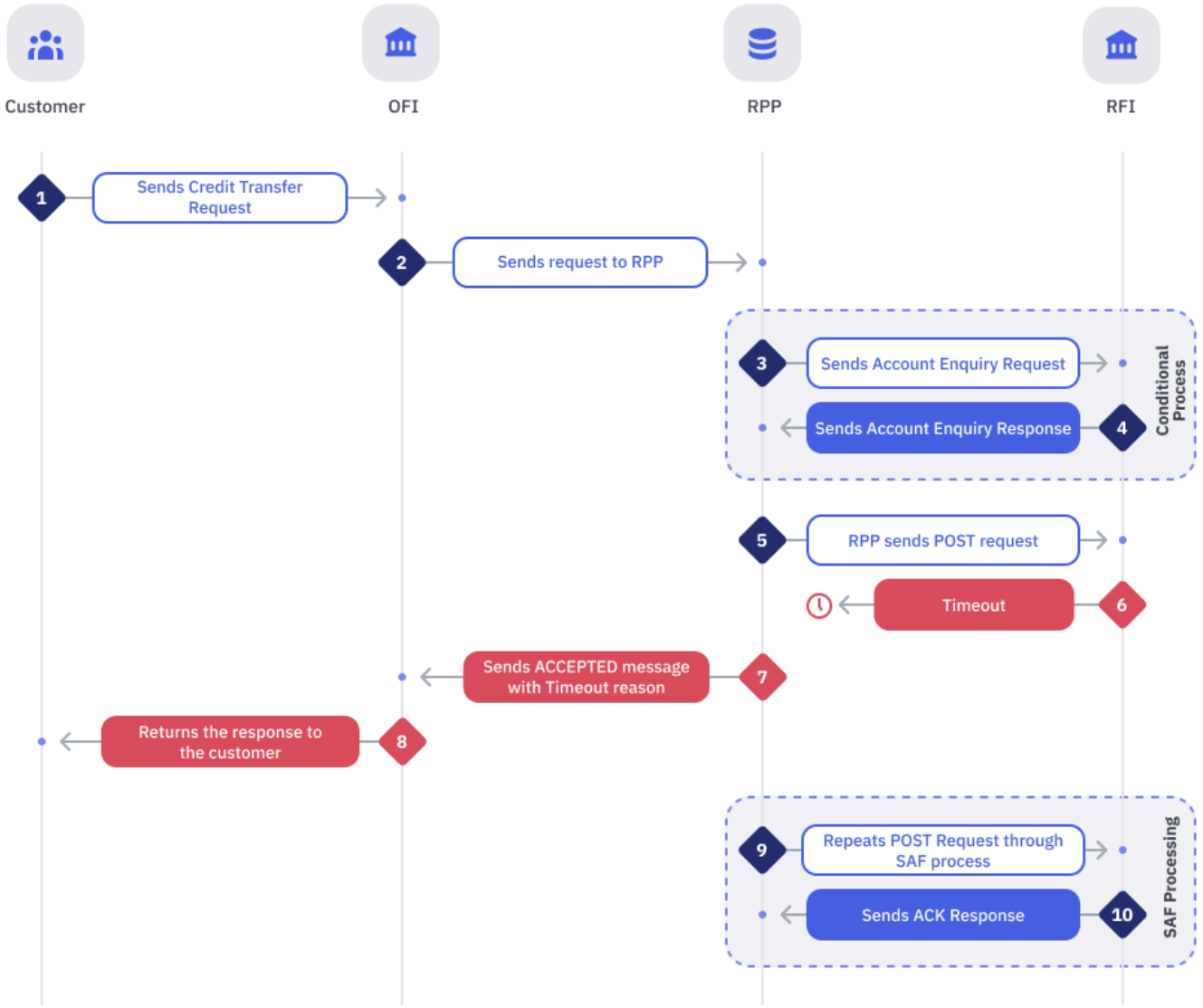
## RFI Failed to Receive Request from RPP




| Condition | Actions | Alternatives |
| --- | --- | --- |
| RPP sent a request to RFI. However, RFI did not receive the request from RPP<br><br>As no response is received | RPP shall:<br>• Timeout<br>• Return a NEGATIVE response with timeout reason | If retry is configured, RPP shall:<br>• Store the request to SAF<br>• If retry count has not exceeded the maximum |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| from RFI after x period of time, RPP eventually timeout | OFI shall:<br>• Display an appropriate error message to the Customer<br>• Stop processing<br>• Initiate a Transaction Enquiry separately to confirm on the payment status | number of retries<br>◦ Send a repeat request<br>◦ Continue processing<br><br>• If retry count has exceeded the maximum number of retries<br>◦ Display an ACCEPTED status message to Customer<br>◦ Stop processing<br>◦ Confirm the payment manually via Back Office portal |

## RPP Failed to Receive Response from RFI




| Condition | Actions | Alternatives |
| --- | --- | --- |
| RPP sent a request to RFI, and RFI did receive the request. However, RFI response did not | RPP shall:<br>• Timeout | If retry is configured, RPP shall:<br>• Store the request to SAF |

| Condition | Actions | Alternatives |
| --- | --- | --- |
| reach to RPP<br><br>As no response is received from RFI after x period of time, RPP eventually timeout | • Return a NEGATIVE response with timeout reason<br><br>OFI shall:<br>• Display an appropriate error message to the Customer<br>• Stop processing | • If retry count has not exceeded the maximum number of retries<br>◦ Send a repeat request<br>◦ Continue processing<br><br>• If retry count has exceeded the maximum number of retries<br>◦ Display an ACCEPTED status message to Customer<br>◦ Stop processing<br>◦ Confirm the payment manually via Back Office portal |

## Exception Conditions

## Rejected by RPP

Below are some of the conditions that the request may be rejected

| No | Condition | Description | Actions |
|---|---|---|---|
| 1 | Message Validation Error | An invalid message was sent to RPP. Some of the possible causes are:<br>• Unknown inbound message is received<br>• Message signature could not be verified<br>• Failed in message parsing<br>• Mandatory field validation has failed | RPP will not send the request to RFI. A REJECT response will be returned to OFI<br><br>**Notes:**<br>A copy of the request message in FULL will be returned in the REJECT response in **<AddtlData>** field. This can be used by the sender to investigate the issue with the message |
| 2 | Business Validation Error | Some of the possible causes are:<br>• Error in date validation<br>• Error in RFI validations<br>• RFI is inactive | RPP will not send the request to RFI. A NEGATIVE response will be returned to OFI |
| 3 | Liquidity Position Threshold Exceeded – Red | The maximum Liquidity Position Threshold of the OFI has been exceeded | RPP will not send the request to RFI. A NEGATIVE response will be returned to OFI<br><br>**Notes:** |

| No | Condition | Description | Actions |
|---|---|---|---|
| | | | Participant needs to update their liquidity position with Bank Negara Malaysia before RPP will resume accepting new incoming transactions |
| 4 | Proxy Validation Error | RPP could not resolve the proxy to a valid account number | If there is no discrepancy between the request and NAD Proxy information, proceed with the Pay by Proxy request to the RFI<br><br>If the Proxy Resolution Enquiry returns unsuccessful or there is any discrepancy between the request and the NAD Proxy information, send a negative response to the OFI |

## Rejected by RFI

Below are some of the conditions that the request may be rejected

| No | Condition | Description | Actions |
|---|---|---|---|
| 1 | Message Validation Error | An invalid message was sent to RPP. Some of the possible causes are:<br>• Unknown inbound message is received | RFI will not process the request. A REJECT response will be returned to RPP<br><br>**Notes:**<br>A copy of the request message in |

| No | Condition | Description | Actions |
|---|---|---|---|
| | | • Message signature could not be verified<br>• Failed in message parsing<br>• Mandatory field validation has failed | FULL will be returned in the REJECT response in **<AddtlData>** field. This can be used by the sender to investigate the issue with the message |
| 2 | Business Validation Error | Some of the possible causes are:<br>• Error in date validation<br>• Error in RFI validations<br>• RFI is inactive | RFI will not process the request. A NEGATIVE response will be returned to RPP |
| 3 | Beneficiary Account Validation Error | Some of the possible causes are:<br>• Beneficiary account number does not exist<br>• Invalid beneficiary account format and check digit<br>• Beneficiary account is closed, dormant, hold, frozen, inactive or any other status that prohibits fund crediting to the account<br>• Beneficiary account is blacklisted | RFI will reject the request. A NEGATIVE response will be returned to RPP |

## Timeout

Below are some of the conditions that a timeout could occur

| No | Condition | Description | Actions |
|---|---|---|---|
| 1 | RPP failed to receive any incoming request from OFI | Request was sent by OFI but RPP failed to receive the request | **Account Enquiry**<br>• OFI can send a new Account Enquiry request<br><br>**Credit Transfer**<br>• OFI is advisable to send a Transaction Enquiry to check on the payment status<br>• In the event a payment needs to be resent, OFI can resend the same request up to the maximum number of retries<br>• If the maximum number of retries has been exceeded, OFI shall display an appropriate error message to the Customer<br><br>**Notes:**<br>For Credit Transfer, if the maximum number of retries has been exceeded, OFI shall display an ACCEPTED message to the Customer and confirms the payment status via Back Office portal. If request is not successful, then manual processing/refund shall be performed |
| 2 | OFI failed to receive response from RPP | RPP has responded to the OFI but OFI failed | **Account Enquiry**<br>• OFI can send a new Account Enquiry request<br><br>**Credit Transfer** |

| No | Condition | Description | Actions |
|---|---|---|---|
| | | to receive the response | • OFI is advisable to send a Transaction Enquiry to check on the payment status<br>• In the event a payment needs to be resent, OFI can resend the same request up to the maximum number of retries<br>• If the maximum number of retries has been exceeded, OFI shall display an appropriate error message to the Customer<br><br>**Notes:**<br>For Credit Transfer, if the maximum number of retries has been exceeded, OFI shall display an ACCEPTED message to the Customer and confirms the payment status via Back Office portal. If request is not successful, then manual processing/refund shall be performed |
| 3 | RFI failed to receive request from RPP | Request was sent by RPP but RFI failed to receive the request | RPP will respond to OFI with ACCEPTED (timeout reason) and stores the request to SAF for retry purpose (if applicable) OFI shall display an appropriate error message to the Customer<br><br>**Notes:**<br>RFI shall not reject request originates from SAF |
| 4 | RPP failed to receive response from RFI | RFI has responded to RPP but RPP failed to receive the response | RPP will respond to OFI with ACCEPTED (timeout reason) and stores the request to SAF for retry purpose (if applicable)<br>OFI shall display an appropriate error message |

| No | Condition | Description | Actions |
|---|---|---|---|
| | | | to the Customer<br><br>**Notes:**<br>• RFI shall not reject request originates from SAF<br>• RPP may choose to initiate a Transaction Enquiry to confirm on the payment status instead of payment retry depending on the situation |

## Inflight Exceptions

Below are some of the conditions that an inflight exception could occur

| No | Condition | Description | Actions |
|---|---|---|---|
| 1 | OFI timed-out and sends a REPEAT request while RFI is processing the transaction | Request was sent by OFI but RFI has taken a longer time to process the transaction so OFI timed-out | RPP will place the REPEAT request in queue. During processing, RPP will respond with the original response to OFI |
| 2 | OFI timed-out and sends a REPEAT request while the response from RPP is in transit to OFI | RPP has responded to the OFI but OFI timed out first and sent a REPEAT before the | RPP will place the REPEAT request in queue. During processing, RPP will respond with the original response to OFI |

| No | Condition | Description | Actions |
|---|---|---|---|
| | | response from RPP is received | |
| 3 | OFI initiated 2 transactions (1 Original and 1 REPEAT) one after the other – OFI will terminate the first session before initiating the REPEAT session | OFI initiated a Credit Transfer and a REPEAT of the same Credit Transfer transaction | Depends on at which point the REPEAT request has been received by RPP:<br>• CT request has been sent but no response:<br>  ◦ RPP will respond with ACCEPTED to OFI<br>• CT request has been sent and response received from RFI<br>  ◦ RPP will respond with the original response<br>• CT request has not been sent to RFI<br>  ◦ RPP will respond with ACCEPTED to OFI<br><br>Manual reconciliation will be done by OFI for those with ACCEPTED status |

## Message Schema

## Account Enquiry

Below illustrates the message schema to be used for each transaction leg. For actual schema and message version, please refer to the API specifications instead

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| 1 | Success Account Enquiry | | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| 2 | Message Validation Failure 1 | Request from OFI:<br>• Signature could not be verified<br>• Message parsing failed<br>• Mandatory fields level validation failed<br>• Unknown inbound message | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | OFI | Out: admi.002.001.01<br>In: admi.002.001.01 |
| 3 | Message Validation Failure 2 | Request from RPP:<br>• Signature could not be verified<br>• Message parsing failed<br>• Mandatory fields level validation failed<br>• Unknown inbound message | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: admi.002.001.01<br>In: admi.002.001.01 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RPP | OFI | Out: admi.002.001.01<br>In: admi.002.001.01 |
| 4 | Message Validation Failure 3 | Response from RFI:<br>• Signature could not be verified | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In:pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 5 | Message Validation | Response from RPP: | OFI | RPP | Out: pacs.008.001.06 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | Failure 4 | • Signature could not be verified | | | In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 6 | Business Validation Failure | • RFI is not a participant of RPP<br>• Invalid Date<br>• RFI is inactive | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: NA |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: NA |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 7 | Beneficiary Account Validation Failure | RFI returns a negative response due to account related validation failure like Invalid Account, Account Closed, Account On hold, Account Blacklisted and etc | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | | | In: pacs.002.001.08 |
| 8 | Timeout 1 | RPP did not receive request | OFI | RPP | Out: pacs.008.001.06<br>In: NA |
| | | | RPP | RFI | Out: NA<br>In: NA |
| | | | RFI | RPP | Out: NA<br>In: NA |
| | | | RPP | OFI | Out: NA<br>In: NA |
| 9 | Timeout 2 | RFI did not receive request | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: NA |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RFI | RPP | Out: NA<br>In: NA |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 10 | Timeout 3 | RPP did not receive response | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: NA |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 11 | Timeout 4 | OFI did not receive response | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: NA |

## Credit Transfer

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| 1 | Success Account Enquiry | | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 2 | Message Validation Failure 1 | Request from OFI:<br>• Signature could not be verified<br>• Message parsing failed | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | • Mandatory fields level validation failed<br>• Unknown inbound message | RPP | OFI | Out: admi.002.001.01<br>In: admi.002.001.01 |
| 3 | Message Validation Failure 2 | Request from RPP:<br>• Signature could not be verified<br>• Message parsing failed<br>• Mandatory fields level validation failed<br>• Unknown inbound message | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: admi.002.001.01<br>In: admi.002.001.01 |
| | | | RPP | OFI | Out: admi.002.001.01<br>In: admi.002.001.01 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| 4 | Message Validation Failure 3 | Response from RFI:<br>• Signature could not be verified | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In:pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 5 | Message Validation Failure 4 | Response from RPP:<br>• Signature could not be verified | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | | | In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 6 | Business Validation Failure | • RFI is not a participant of RPP<br>• Invalid Date<br>• RFI is inactive | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: NA |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: NA |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 7 | Beneficiary Account Validation Failure | RFI returns a negative response due to account related validation failure like Invalid Account, Account Closed, Account On hold, Account Blacklisted and etc | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| 8 | Timeout 1 | RPP did not receive request | OFI | RPP | Out: pacs.008.001.06<br>In: NA |
| | | | RPP | RFI | Out: NA<br>In: NA |
| | | | RFI | RPP | Out: NA<br>In: NA |
| | | | RPP | OFI | Out: NA<br>In: NA |
| 9 | Timeout 2 | RFI did not receive request | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: NA |
| | | | RFI | RPP | Out: NA<br>In: NA |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 10 | Timeout 3 | RPP did not receive response | OFI | RPP | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: NA |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| 11 | Timeout 4 | OFI did not receive response | OFI | RPP | Out: pacs.008.001.06 |

| No | Condition | Scenario | Sender | Receiver | Message Schema<br><br>Out: From Sender<br>In: To Receiver |
|---|---|---|---|---|---|
| | | | | | In: pacs.008.001.06 |
| | | | RPP | RFI | Out: pacs.008.001.06<br>In: pacs.008.001.06 |
| | | | RFI | RPP | Out: pacs.002.001.08<br>In: pacs.002.001.08 |
| | | | RPP | OFI | Out: pacs.002.001.08<br>In: NA |

## See also

- **Recommended validations**
- **How does credit transfer reversal work**
- **How does repeat message work**
- **How does SAF work**