# QR Payment

# API Documentation

1.1.0

PT. MITRA TRANSAKSI INDONESIA

# Preface

This API documentation provides a documentation of the messaging requirements of project entitled “QR Payment” to support the intended business area needs. The requirements will be based on the scope agreed in the *Business Requirements Document (BRD).* This document will serve as a baseline for the subsequent development activities such as design, development, and testing phase across the project lifecycle.

This document is not suitable for audience who wish to understand the functional aspects of the project.

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# Revisions

| Version | Date | Author | Change Summary |
|---|---|---|---|
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# 1. Introduction

## 1.1. Document Overview

This document provides message specification for merchant, token requestors, or any entities who may be interested in QR Program. This document contains API requests, data fields descriptions, and sample messages for both request and response actions.

There are four main entities who are involved in *QR Payment* Program, which is listed in the table below:

*Table 1. Entities in QR Payment*

| No. | Entity Name | Description |
|---|---|---|
| 1 | *Merchant* | An entity who provides goods and/or services for customers. Merchant is also involved during purchase transactions. |
| 2 | *Acquirer* | The institution that controls the terminal and the acquiring system is usually responsible for the merchant's acquisition. |
| 3 | *Issuer App* | Application used by consumers to publish QR Codes which will later be scanned by merchants. |
| 4 | *Issuer* | Institutions that issue payment accounts / payment cards (if card-based transactions) for which this institution is also responsible for transaction authorization. |
| 5 | *Switching* | The institution responsible for interconnection between the issuer system and the acquirer system. |

## 1.2. Audience

This document is intended as a technical reference during implementation, and hence more suitable to technical audience

## 1.3. Global Parameters

This document contains global variables, indicated with the term **[globalVariable].** The following list summarizes the global parameters used in this document:

*Table 2. Global parameters of the QR product*

| No. | Variable Name | Description | Value |
|---|---|---|---|
| 1 | **URL** | Universal resource locator for the APIs | **DEV**: https//dev.yokke.co.id:7778/<br>**TEST**: https//tst.yokke.co.id:7778/<br>**PROD**: https//api.yokke.co.id:7778/ |

### 1.4. Terms

The list below contains all the terms, acronyms, or phrases used in this document:

*Table 3. Terms used in this document*

| No. | Variable Name | Description |
|---|---|---|
| 1 | R | Stands for required in data field description. |
| 2 | C | Stands for conditional in data field description. |
| 3 | O | Stands for optional in data field description. |

# 2. Field Descriptions

This section contains description of each field used in the request and response messages. This section also contains constants used in the certain fields. Some special characters that are not allowed in every request or response message include <,>, `, ', and %.

### 2.1. Header Fields

| No. | Name | Data Type | Data Length | Description |
|---|---|---|---|---|
| 1 | *Content-Type* | STRING | 16 | The type of the HTTP body content. It is always application/json. |
| 2 | *Content-Length* | NUMBER | | Length of the content. |
| 3 | *Authorization* | STRING | N/A | A field to contain bearer token or basic auth. |
| 4 | *X-TIMESTAMP* | | 25 | DateTime with timezone, which follows the ISO-8601 standard. For example: 2021-04-19T08:27:11.222+07:00 |
| 5 | *X-SIGNATURE* | STRING | N/A | To verify the contents / body of JSON messages to avoid changing (tempering) messages. |
| 6 | X-EXTERNAL-ID | String | 15 | Numeric String, Reference number that should be unique in the same day |
| 7 | *X-PARTNER-ID* | STRING | 32 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |
| 8 | CHANNEL-ID | String | 2 | PJP’s channel id<br>Device identification on which the API services is currently being accessed by the end user (customer).<br>01 : EDC<br>02 : POS |

### 2.2. Request Body Fields

| No. | Name | Data Type | Data Length | Description |
|---|---|---|---|---|
| 1 | *merchantId* | STRING | 15 | This field is a 15-digit merchant identifier that is unique per each merchant. The exact value is |

| | | | | |
|---|---|---|---|---|
| | | | | disclosed to each merchant separately. Padding left 0. Example: 00007100010926. |
| 2 | *terminalId* | STRING | 8 | This field contains an identifier that is unique per each merchant. The exact value is disclosed to each merchant separately. Example: 72001126. |
| 3 | partnerReferenceNo | STRING | 20 | Transaction identifier on service consumer system |
| 4 | originalReferenceNo | STRING | 12 | Original transaction identifier on service provider system |
| 5 | ServiceCode | STRING | 2 | Transaction type indicator(service code of the original transaction request) |
| 6 | latestTransactionStatus | STRING | M | 00 - Success<br>01 - Initiated<br>02 - Paying<br>03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| 7 | transactionStatusDesc | STRING | 50 | Description status transaction |
| 8 | *amount* | JSON OBJECT | 12,2 (value)<br>3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>“value” : “100000.00”,<br>“currency”:”IDR”<br>}. |
| 9 | *feeAmount* | JSON OBJECT | 12,2 (value)<br>3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>“value” : “100000.00”,<br>“currency”:”IDR”<br>}. |
| 12 | *reason* | STRING | 99 | This field is used to fill the cancellationReason |
| 13 | customerNumber | STRING | 19 | Merchant Primary Account Number for transaction. Values produced by Host |
| 14 | destinationNumber | STRING | 19 | Customer Primary Account Number for transaction. Values produced by Issuer |
| 15 | bankCode | STRING | 8 | Bank code |
| 16 | ServiceCode | STRING | 2 | Transaction type indicator(service code of the original transaction request) |
| 17 | *additionalInfo* | JSON OBJECT | N/A | A JSON body which includes the original transaction. The structure of origin |
| 18 | grant_type | STRING | | “client_credentials” : The client can request an access token using only its client credentials (or other supported means of authentication) when the client |

| | | | | |
|---|---|---|---|---|
| | | | | is requesting access to the protected resources under its control (OAuth 2.0: RFC 6749 & 6750) |

### 2.3. Response Body Fields

The following list describes each field which may present in a response message:

| No. | Name | Data Type | Data Length | Description |
|---|---|---|---|---|
| 1 | accessToken | STRING | | A string representing an authorization issued to the client that used to access protected resources |
| 2 | tokenType | STRING | | The access token type provides the client with the information required to successfully utilize the access token to make a protected resource request (along with type-specific attributes)<br>Token Type Value:<br>• "Bearer": includes the access token string in the request<br>• "Mac": issuing a Message Authentication Code (MAC) key together with the access token that is used to sign certain components of the HTTP requests<br>Reference: OAuth2.0 RFC 6749 & 6750 |
| 3 | expiresIn | STRING | | Session expiry in seconds: 900 (15 menit) |
| 4 | *responseCode* | STRING | 7 | This field describes the response from MTI. The list of response codes and its messages are shown in 2.4.2. Response Code |
| 5 | *responseMessage* | STRING | 99 | This field describes the response message from MTI. The list of response codes and its messages is shown in 2.4.2. Response Code. |
| 6 | referenceNo | STRING | 12 | Transaction identifier on service provider system. Must be filled upon successful transaction |
| 7 | partnerReferenceNo | STRING | 20 | Transaction identifier on service consumer system |
| 8 | qrContent | STRING | 512 | QR String MPM |
| 9 | *merchantId* | STRING | 15 | This field is a 15-digit merchant identifier that is unique per each merchant. The exact value is disclosed to each merchant separately. Padding left 0. Example: 00007100010926. |
| 10 | *terminalId* | STRING | 8 | This field contains an identifier that is unique per each merchant. The exact value is disclosed to each merchant separately. Example: 72001126. |
| 11 | originalReferenceNo | STRING | 12 | Transaction identifier on service provider system. Must be filled upon successful transaction |
| 12 | originalPartnerReferenceNo | STRING | 20 | Transaction identifier on service consumer system |

| | | | | |
|---|---|---|---|---|
| 13 | originalExternalId | STRING | 32 | Original External-ID on header message |
| 14 | latestTransactionStatus | STRING | 2 | 00 - Success<br>01 - Initiated<br>02 - Paying<br>03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| 15 | transactionStatusDesc | STRING | 50 | Description status transaction |
| 16 | *amount* | STRING | 12,2<br>(value)<br><br>3<br>(currency) | The field is used during generate QR request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>“value”:“100000.00”,<br>“currency”:”IDR”<br>}. |
| 17 | *feeAmount* | STRING | 12,2<br>(value)<br><br>3<br>(currency) | The field is used during generate QR request.<br>For example: Rp 10.000,00 is formatted into:<br>{<br>“value”:“10000.00”,<br>“currency”:”IDR”<br>}. |
| 19 | ServiceCode | STRING | 2 | Transaction type indicator(service code of the original transaction request) |
| 20 | reason | STRING | 256 | Cancellation reason |
| 21 | *merchantCity* | STRING | 50 | Merchant City |
| 22 | *additionalInfo* | JSON OBJECT | N/A | A JSON body which includes the original transaction. The structure of origin |

## 2.4. Detailed Descriptions

### 2.4.1. Signature

The signature used in Header of each request and response message. To generate signature, we use get the request/response body and calculate it using HMAC_SHA512 with detail format as bellow :

**Symetric-Signature** = base64(HMAC_SHA512 (**$ClientSecret**, **stringToSign**))

**stringToSign** = **HTTPMethod**+":"+**EndpointUrl**":"+**AccessToken**+":"+Lowercase(SHA256(minify(**RequestBody**)))+":"+**TimeStamp**

- **ClientSecret : Will be informed separately for each merchant**
- HTTPMethod : POST/GET
- EndpointUrl : Origin URL Access
- AccessToken : Represents Bearer access token of request header

- RequestBody : Represents real request body of transaction
- TimeStamp : Represents real X-TIMESTAMP of request header

**Example step-by-step:**

- ClientSecret : *mBSytcvaYN8XkUrneWPLxhqG7b3pMg2HaVaaaeGZnafZ*
- HTTPMethod : POST
- EndpointUrl : /v2.0/qr/qr-mpm-generate
- AccessToken : eyJraWQiOiJzc29zIiwiYWxnIjoiUlM1MTIifQ.eyJzdWIiOiJjMGY4MDUzZS1kMTg3LTQ0ZWItYmM1NC1iOWE3YzQzYzU2MTgiLCJhdWQiOm51bGwsIm5iZiI6MTcwOTc3ODA1MiwiaXNzIjoiSldUTVRJIiwiZXhwIjoxNzA5ODE0MDUyLCJpYXQiOjE3MDk3NzgwNTJ9.g0FyC39fAcCe_23aT68dXjVgH5mfMK4k2hNn3XpHpHGFSLEGQP_YZOvqviHOQQgYbiFaIjM9iYeiYv2r9MDjYUidkpcjigeTSgXNvtDcA3jqDz78aOg0pYj1Lv5W8oIvS7VofeFs9X7fIU2JRVB77_H_azMFuJtG1dmpYKVQTP6s1hPFrrrAd-4l2aipJI4skB_7ehxiJS17G2xQEiKEds1GZrhnB0pO94PiBaDeqmVtr9ThQqYIupew7dP2YzlemJuWg9dqZ7CdJCrlhw-Grm-fsYw686CpvrGJKuibup2vRTn4lyqRS19AVePKaJiYVH_x1upzz87J-u2VTQd2Uw
- RequestBody : {"partnerReferenceNo":"22111029000000003108","amount":{"value":"10000.00","currency":"IDR"},"feeAmount":{"value":"0.00","currency":"IDR"},"merchantId":"000071000247508","terminalId":"73003514"}
- TimeStamp : 2024-03-07T09:21:46+07:00

Lowercase(SHA256(minify(**RequestBody**))) :
56698e3d920273e0c18478cf04c0711bfc9cd4f6642f0dd95e3dfd99b15fabf0

**stringToSign =** POST:/v2.0/qr/qr-mpm-generate:eyJraWQiOiJzc29zIiwiYWxnIjoiUlM1MTIifQ.eyJzdWIiOiJjMGY4MDUzZS1kMTg3LTQ0ZWItYmM1NC1iOWE3YzQzYzU2MTgiLCJhdWQiOm51bGwsIm5iZiI6MTcwOTc3ODA1MiwiaXNzIjoiSldUTVRJIiwiZXhwIjoxNzA5ODE0MDUyLCJpYXQiOjE3MDk3NzgwNTJ9.g0FyC39fAcCe_23aT68dXjVgH5mfMK4k2hNn3XpHpHGFSLEGQP_YZOvqviHOQQgYbiFaIjM9iYeiYv2r9MDjYUidkpcjigeTSgXNvtDcA3jqDz78aOg0pYj1Lv5W8oIvS7VofeFs9X7fIU2JRVB77_H_azMFuJtG1dmpYKVQTP6s1hPFrrrAd-4l2aipJI4skB_7ehxiJS17G2xQEiKEds1GZrhnB0pO94PiBaDeqmVtr9ThQqYIupew7dP2YzlemJuWg9dqZ7CdJCrlhw-Grm-fsYw686CpvrGJKuibup2vRTn4lyqRS19AVePKaJiYVH_x1upzz87J-u2VTQd2Uw:56698e3d920273e0c18478cf04c0711bfc9cd4f6642f0dd95e3dfd99b15fabf0:2024-03-07T09:21:46+07:00

**HMAC_SHA512**(*mBSytcvaYN8XkUrneWPLxhqG7b3pMg2HaVaaaeGZnafZ*, **stringToSign**) =
3fa385ca2381b9ceee725fb6dca7eb279beec956acc8d4e80d05a9ceabe17c0ee22e84f1f76cd933822d8b35b462bd85638d213f78efb6be5ff3406da3372983

**Base64() =** P6OFyiOBuc7ucl+23KfrJ5vuyVasyNToDQWpzqvhfA7iLoTx92zZM4ItizW0Yr2FY40hP3jvtr5f80Btozcpgw==

### 2.4.2. Response Code

The following is a list of valid response codes for using QR Payment based on REST:

*Table 4. Response Code Categories*

| HTTP Code | Reason Code | Description |
|---|---|---|

| | | |
|---|---|---|
| **200** | 00 | Sukses |
| **401** | 02 | Unauthorized Signature |
| **404** | 03 | Invalid Merchant |
| **403** | 05 | Do Not Honor |
| **500** | 06 | General Eror |
| **404** | 12 | Invalid Transaction Status |
| **404** | 13 | Invalid Amount |
| **400** | 30 | Bad Request |
| **403** | 51 | Insufficient Funds |
| **403** | 54 | Transaction Expired |
| **403** | 57 | QR Invalid/Expired |
| **403** | 59 | Suspected Fraud |
| **403** | 61 | Exceeds Transaction Amount Limit |
| **504** | 68 | Timeout |
| **504** | 90 | Timeout |
| **404** | 94 | Paid Bill |
| **400** | 99 | Invalid Mandatory Field |
| **404** | A5 | Invalid Terminal |
| **403** | A6 | Merchant Blacklisted |
| **403** | A7 | Feature Not Allowed |
| **404** | AG | Transaction Not Found |
| **404** | AH | Transaction Cancelled |
| **404** | D1 | Inconsistent Request |
| **409** | D2 | Cannot use same X-EXTERNAL-ID in same day |

# 3. Application Program Interfaces

## 3.1. Introduction

This section describes a detailed description of the APIs introduced in Direct Debit program. It includes explanations of the API, HTTP properties, request and response parameters, and examples.

*Table 5. Summary of APIs described in this document*

| No. | API Name | Description |
|---|---|---|
| QRIS MPM (Merchant Presented Mode) | | |
| 1 | *QR Generation* | This API is used to generate QRIS |
| 2 | *QR Payment Credit Cancel* | This API is used to cancel od QR Payment Credit |
| 3 | *QR Check Status* | This API is used to check status of QR Payment Credit |
| 4 | *QR Payment Credit Notify* | This API is used to payment notification to merchant |

## 3.2. Get Authentication Token

### 3.2.1. Description

This API is a mechanism to get HTTP-Header token (also known as JSON Web Token - JWT) that is used for authentication and signing the REST payload sent to server. The HTTP GET request does not contain any HTTP body.

The JWT **expires** in 15 minutes. If expiration occurs, the requestor must request new token. API request without token, or with an expired token, will be rejected.

### 3.2.2. Properties

| | |
|---|---|
| **URL** | **[URL]/qr/v2.0/access-token/b2b** |
| **Communication Type** | Synchronous |
| **Protocol** | HTTPS |
| **METHOD** | **POST** |
| **Charset** | UTF-8 |
| **Authorization method** | No auth |

### 3.2.3. Request Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | Content-Type | R | | String represents indicate the media type of the resource (e.g. application/json, application/pdf) |

| | | | | |
|---|---|---|---|---|
| 2 | X-TIMESTAMP | R | | Client's current local time in yyyy-MM- ddTHH:mm:ss.SSSTZD format. ±<br>5 minutes from server time |
| 3 | X-CLIENT-KEY | R | | $Username (given at completion registration process) |
| 4 | X-SIGNATURE | R | | on-Repudiation & Integrity checking X-SIGNATURE : with asymmetric algorithm SHA256withRSA (Private_Key, stringToSign). stringToSign = X-CLIENT-KEY + "\|" + XTIMESTAMP |

### 3.2.4. Request Examples

Username: 64e67320-7f58-48a9-9196-1d2cdff30fb2

Private_Key: provide by merchant.

*Get Java Token example: Request Header*

```
{
      "Content-type":"application/json",
      "X-TIMESTAMP":"2022-01-10T07:05:00+07:00",
      "X-CLIENT-Key":"64e67320-7f58-48a9-9196-1d2cdff30fb2",
      "X-SIGNATURE":
      "dbeadda15c0e89834d635b0e727e36fe34dc61ab497a869dcfac3a71c916612a948e786
      fafba2043bd5cf44744e9079ee0a74707f1585ca521e7686b9cbd2397"
}
```

*Get Authentication Token example: Request Body*

```
{
      "grantType":"client_credentials"
}
```

### 3.2.5. Response Parameters

| JSON Header | | | |
|---|---|---|---|
| **No** | **Field Name** | **R/C/O** | **Description** |
| 1 | *X-TIMESTAMP* | R | Client's current local time in yyyy-MM- ddTHH:mm:ss.+TZD format |
| 2 | *X-CLIENT- KEY* | R | $Username (given at completion registration process) |

| JSON Body | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | *responseCode* | R | 7 | Response code from MTI |
| 2 | responseMessage | R | 99 | This field describes the response message from MTI. The list of response codes and its messages is shown above. |
| 3 | *accessToken* | R | N/A | Generated JWT Token |
| 4 | *tokenType* | R | 6 | Token type |
| 5 | *expiresIn* | R | N/A | Session expiry - Life time of Access Token in seconds |

### 3.2.6. Response Examples

*JSON Header*


```
{
    "X-TIMESTAMP":"2022-01-10T07:05:00+07:00",
    "X-CLIENT-Key":"64e67320-7f58-48a9-9196-1d2cdff30fb2"
}
```


*JSON Body*


```
{
    "responseCode": "2007300",
    "responseMessage": "Successful",
    "accessToken":
"eyJraWQiOiJzc29zIiwiYWxnIjoiUlM1MTIifQ.eyJzdWIiOiJjMGY4MDUzZS1kMTg3LTQ0ZWItYmM1NC1iOWE3YzQzYzU2MTgiLC
JhdWQiOm51bGwsIm5iZiI6MTcwOTc3ODA1MiwiaXNzIjoiSldUTVRJIiwiZXhwIjoxNzA5ODE0MDUyLCJpYXQiOjE3MDk3NzgwNTJ9
.g0FyC39fAcCe_23aT68dXjVgH5mfMK4k2hNn3XpHpHGFSLEGQP_YZOvqviHOQQgYbiFaIjM9iYeiYv2r9MDjYUidkpcjigeTSgXNv
tDcA3jqDz78aOg0pYj1Lv5W8oIvS7VofeFs9X7fIU2JRVB77_H_azMFuJtG1dmpYKVQTP6s1hPFrrrAd-
4l2aipJI4skB_7ehxiJS17G2xQEiKEds1GZrhnB0pO94PiBaDeqmVtr9ThQqYIupew7dP2YzlemJuWg9dqZ7CdJCrlhw-Grm-
fsYw686CpvrGJKuibup2vRTn4lyqRS19AVePKaJiYVH_x1upzz87J-u2VTQd2Uw",
    "tokenType": "Bearer",
    "expiresIn": "900"
}
```

## 3.3. QR Generation (MPM)

### 3.3.1. Description

This API used to request QR generation.

### 3.3.2. Flow

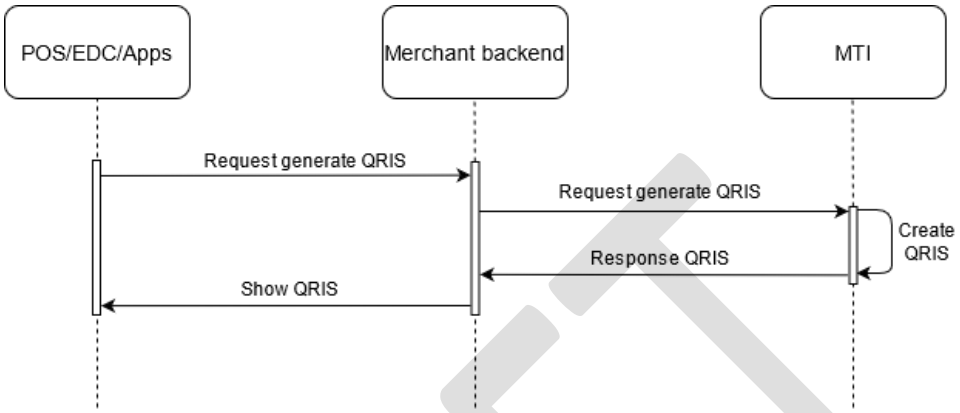


*Figure 1. QR Generation flow*

### 3.3.3. Properties

| | |
|---|---|
| **Service Code** | **47** |
| **URL** | **[URL]/v2.0/qr/qr-mpm-generate** |
| **Communication Type** | Synchronous |
| **Protocol** | HTTPS |
| **METHOD** | POST |

### 3.3.4. Request Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | Content-Type | R | | String represents indicate the media type of the resource (e.g. application/json, application/pdf) |
| 2 | Authorization | R | | Represents access_token of a request; string starts with keyword “Bearer ” followed by access_token (e.g. Bearer eyJraWQiOi...Jzc29zIiwiY) |
| 3 | X-TIMESTAMP | R | | Client's current local time in yyyy-MM-ddTHH:mm:ss.SSSTZD format |
| 4 | X-SIGNATURE | R | | Please see in section 2.4.1 |
| 5 | X-EXTERNAL-ID | R | 15 | Numeric String, Reference number that should be unique in the same |
| 6 | X-PARTNER-ID | R | 36 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |

| | | | | |
|---|---|---|---|---|
| 7 | CHANNEL-ID | R | 2 | PJP's channel id<br>Device identification on which the API services is currently being accessed by the end user (customer) |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |
| String | *terminalId* | R | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| String | partnerReferenceNo | R | 20 | Transaction identifier on service consumer system |
| JSON object. | *amount* | R | 12,2 (value) 3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>"value":"100000.00",<br>"currency":"IDR"<br>}. |
| JSON object. | *feeAmount* | O | 12,2 (value) 3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>"value":"100000.00",<br>"currency":"IDR"<br>}. |
| JSON object. | *additionalInfo* | R | N/A | Additional information |

### 3.3.5. Request Example

| JSON additionalIndo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *memberBank* | O | 3 | Acquirer Banking company code. |

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### 3.3.6. Request Example

```
{
  "merchantId": "00007100010926",
  "terminalId": "72001126",
  "partnerReferenceNo": 230218123798000,
  "amount ":
    {
      “value” : “100000.00”,
     “currency”:”IDR”
    },
  "feeAmount":
    {
      “value” : “100000.00”,
     “currency”:”IDR”
    }
      "additionalInfo": {
        "memberBank": "999"
      }

}
```

### 3.3.7. Response Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | *Content-Type* | R | 16 | Content type, i.e. *application/json*. |
| 2 | *X-TIMESTAMP* | R | 25 | ± 5 minutes from server time |
| 3 | *X-SIGNATURE* | R | N/A | Result of HMAC calculation(see in 2.4.1) |
| 4 | *X-EXTERNAL-ID* | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 5 | *X-PARTNER-ID* | R | 36 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *responseCode* | R | 7 | Response code from MTI |
| String | responseMessage | R | 99 | This field describes the response message from MTI. The list of response codes and its messages is shown above. |

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| | | | | |
|---|---|---|---|---|
| String | referenceNo | C | 12 | Transaction identifier on service provider system. Must be filled upon successful transaction |
| String | partnerReferenceNo | O | 20 | Transaction identifier on service consumer system |
| String | *qrContent* | R | N/A | Byte array of QR image in String. |
| String | *terminalId* | O | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| Object | *additionalInfo* | O | | Additional Information |

| JSON additionalIndo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |

### 3.3.8. Response Example


```
{
   "responseCode": "2004700",
    "responseMessage":"Successful",
    "referenceNo": "908718002198",
    "partnerReferenceNo": 230218123798000,
    "terminalId": "72001126",
    "qrContent":
"00020101021226690021ID.CO.BANKAAAAAAA.WWW01189360000801000237320211710002373250303UBE52041
52053033604031005502025601158 02ID5912QRIS CPM DEV6013Jakarta
Pusat61051071062280708730032025012112316172182 6304BAD7"
   "additionalInfo":"{
      "merchantId": "00007100010926"
    }
}
```


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## 3.4. QR Inquiry Status (MPM)

### 3.4.1. Description

This API is used to inquiry status payment credit.

### 3.4.2. Flow

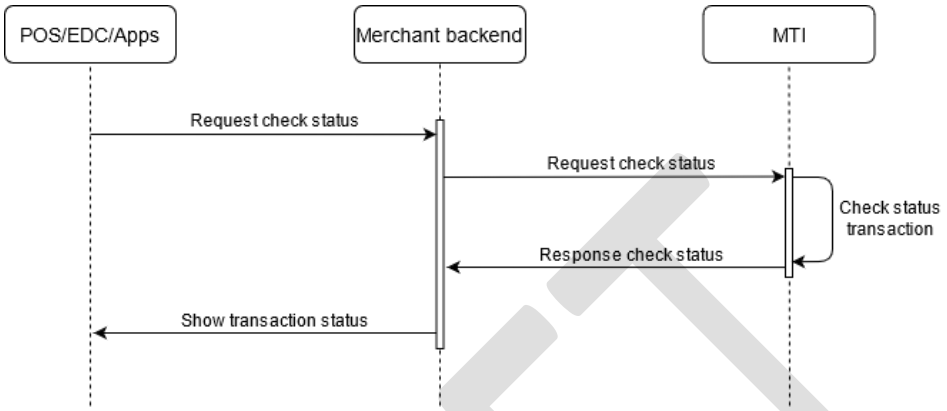


*Figure 2. Inquiry transaction status flow*

### 3.4.3. Properties

| | |
|---|---|
| **Service Code** | **51** |
| **URL** | **[URL]/v3.0/qr/qr-mpm-query** |
| **Communication Type** | Synchronous |
| **Protocol** | HTTPS |
| **METHOD** | POST |

### 3.4.4. Request Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | Content-Type | R | | String represents indicate the media type of the resource (e.g. application/json, application/pdf) |
| 2 | Authorization | R | | Represents access_token of a request; string starts with keyword “Bearer ” followed by access_token (e.g. Bearer eyJraWQiOi...Jzc29zIiwiY) |
| 3 | X-TIMESTAMP | R | | Client's current local time in yyyy-MM-ddTHH:mm:ss.SSSTZD format |
| 4 | X-SIGNATURE | R | | Please see in section 2.4.1 |
| 5 | X-EXTERNAL-ID | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 6 | X-PARTNER-ID | R | 36 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |

| | | | | |
|---|---|---|---|---|
| 7 | CHANNEL-ID | R | 2 | PJP's channel id<br>Device identification on which the API services is currently being accessed by the end user (customer) |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | originalReferenceNo | R | 12 | Original transaction identifier on service provider system |
| String | originalExternalId | R | 15 | Original External-ID on header message |
| String | serviceCode | R | 2 | Transaction type indicator(service code of the original transaction request). Default value with 47 |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |
| JSON object. | *additionalInfo* | R | N/A | A JSON body which includes the original transaction. The structure of origin |

| JSON additionalInfo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *originalTransactionDate* | R | 8 | Original transaction Date. Format YYYYMMDD |
| String | *terminalId* | R | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| String | *memberBank* | O | 3 | Acquirer Banking company code. |

### 3.4.5. Request Example

```
{
   "originalReferenceNo": "506511669691",
   "originalExternalId": "BPRLEXTRNL00048",
   "serviceCode": "47",
   "merchantId": "000071000026521",
   "additionalInfo":
      {
            "originalTransactionDate": "20250306",
           "terminalId": "73001500",
           "memberBank": "999"
      }
```

```
}
```

### 3.4.6. Response Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | *Content-Type* | R | 16 | Content type, i.e. *application/json*. |
| 2 | *X-TIMESTAMP* | R | 25 | ± 5 minutes from server time |
| 3 | *X-SIGNATURE* | R | N/A | Result of HMAC calculation(see in 2.4.1) |
| 4 | *X-EXTERNAL-ID* | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 5 | *X-PARTNER-ID* | R | 36 | An identifier to uniquely identify the token requestor. For example: "MTI-STORE" |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *responseCode* | R | 7 | Response code from MTI. |
| String | responseMessage | R | 99 | This field describes the response message from MTI. The list of response codes and its messages is shown above. |
| String | originalReferenceNo | R | 12 | Transaction identifier on service provider system. Must be filled upon successful transaction |
| String | originalExternalId | R | 32 | Original External-ID on header message |
| String | serviceCode | R | 2 | Transaction type indicator(service code of the original transaction request) |
| String | latestTransactionStatus | M | 2 | 00 - Success<br>01 - Initiated<br>02 - Paying<br>03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| String | transactionStatusDesc | M | 99 | 00 - Success<br>01 - Initiated<br>02 - Paying |

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| | | | | |
|---|---|---|---|---|
| | | | | 03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| String | paidTime | C | 25 | Transaction date : ISO 8601 yyyy-MM-dd'T'HH:mm:ss<br>Must be filled upon successful original transaction. |
| JSON object. | *amount* | R | 12,2 (value) 3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>"value":"100000.00",<br>"currency":"IDR"<br>}. |
| JSON object. | *feeAmount* | O | 12,2 (value) 3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>"value":"100000.00",<br>"currency":"IDR"<br>}. |
| String | *terminalId* | R | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| ISON Object | additionalInfo | O | | Additional Information |

| JSON additionalInfo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |
| String | approvalCode | O | 6 | Approval code of the transaction. Values produced by Issuer. |
| String | merchantPAN | O | 19 | Merchant Primary Account Number for transaction. Values produced by Host |
| String | customerNumber | O | 19 | Customer Primary Account Number for transaction. Values produced by Issuer |
| String | destinationNumber | O | 19 | Merchant Primary Account Number for transaction. Values produced by Host |
| String | bankCode | O | 3 | Acquirer Bank Code. |
| String | issuerName | O | 10 | Issuer Name Transaction |

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| | | | | |
|---|---|---|---|---|
| String | *issuerReferenceID* | O | 20 | issuerReferenceID shall contain only numeric. Values produced by Issuer.<br>For example “23021812379800”. |
| String | *customerName* | O | 30 | Customer name from issuing |

### 3.4.7. Response Example


```
{
    "responseCode": "2005100",
    "responseMessage":"Successful",
    "originalReferenceNo": "506511669694",
    "originalExternalId": "BPRLEXTRNL00048",
    "serviceCode": "47",
    "latestTransactionStatus": "00",
    "transactionStatusDesc": "Success",
    "terminalId": "73001500",
    "paidTime": "2025-03-06T11:48:27",
     "amount ":
    {
            “value” : “1042.00”,
            “currency”:”IDR”
    },
     "feeAmount":
    {
             “value” : “0.00”,
             “currency”:”IDR”
    }
    "additionalInfo":
      {
            "merchantId": "000071000026521",
            "approvalCode": "222423",
            "customerNumber": “936000080100023743”,
            "destinationNumber": “9360000812138965527”,
            "customerName": "Hevyka",
            "bankCode": "999",
            "issuerName": "Anonyms",
            "issuerReferenceID": "000110000023"
    }
}
```


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## 3.5. QR Payment Credit Cancel (MPM)

### 3.5.1. Description

This API requests to cancel/refund a previous success purchase by using certain keys of original transaction include approval code. Cancel/Refund can be used for same day transaction or next day until maximum days of cancel/refund. Cancel/Refund must only be generated manually from merchant (e. g. merchant back office).

### 3.5.2. Flow

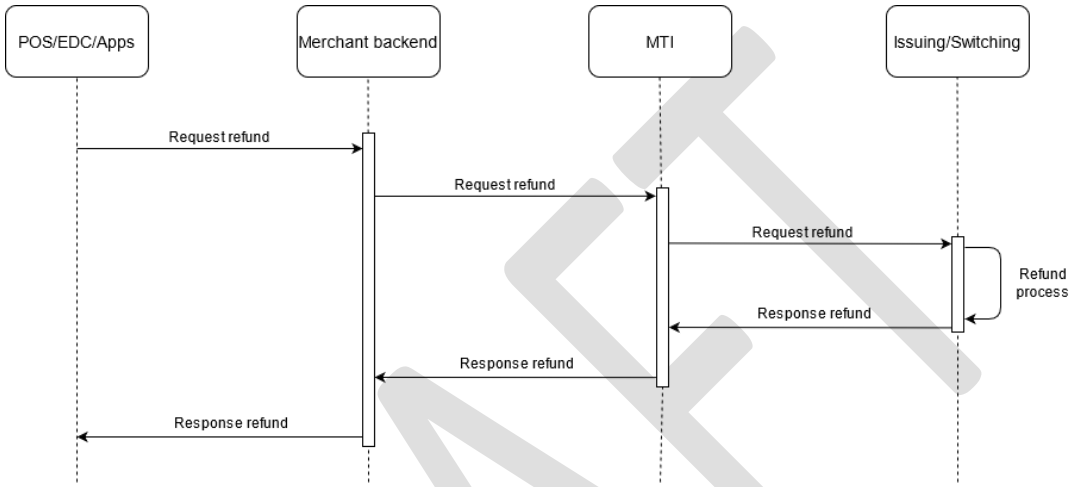


*Figure 3. Cancel flow*

### 3.5.3. Properties

| | |
|---|---|
| **Service Code** | **77** |
| **URL** | **[URL]/v3.0/qr/qr-mpm-cancel** |
| **Communication Type** | Synchronous |
| **Protocol** | HTTPS |
| **METHOD** | POST |

### 3.5.4. Request Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | Content-Type | R | | String represents indicate the media type of the resource (e.g. application/json, application/pdf) |
| 2 | Authorization | R | | Represents access_token of a request; string starts with keyword “Bearer ” followed by access_token (e.g. Bearer eyJraWQiOi...Jzc29zIiwiY) |
| 3 | X-TIMESTAMP | R | | Client's current local time in yyyy-MM-ddTHH:mm:ss.SSSTZD format |

| | | | | |
|---|---|---|---|---|
| 4 | X-SIGNATURE | R | | Please see in section 2.4.1 |
| 5 | X-EXTERNAL-ID | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 6 | X-PARTNER-ID | R | 36 | An identifier to uniquely identify the token requestor. For example: "MTI-STORE" |
| 7 | CHANNEL-ID | R | 2 | PJP's channel id<br>Device identification on which the API services is currently being accessed by the end user (customer) |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | originalReferenceNo | R | 12 | Original transaction identifier on service provider system |
| String | originalPartnerReferenceNo | R | 20 | Transaction identifier on service consumer system |
| String | originalExternalId | R | 32 | Original External-Id on header message |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |
| String | *reason* | M | 99 | This field is used to fill the cancellationReason |
| JSON object. | *amount* | R | 12,2 (value) 3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>"value":"100000.00",<br>"currency":"IDR"<br>}. |
| JSON object. | *additionalInfo* | R | N/A | Additional information |

| JSON Origin | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *originalTransactionDate* | R | 8 | Original transaction Date. Format YYYYMMDD |
| String | *terminalId* | R | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| String | *originalApprovalCode* | R | 6 | Original approvalCode of purchase notify |
| String | *memberBank* | O | 3 | Acquirer Banking company code. |

### 3.5.5. Request Example


```
{
   "originalReferenceNo": "506511669694",
   "originalPartnerReferenceNo": "00000000000000000087",
   "originalExternalId": "BPRLEXTRNL00048",
   "merchantId": "000071000026521",
   "reason": "Customer cancelation",
   "amount": {
     "value" : "1042.00",
     "currency":"IDR"
     },
   "additionalInfo":
        {
           "originalTransactionDate": "20250306",
           "terminalId": "73001500",
           "originalApprovalCode": "222423",
           "memberBank": "999",
        }
}
```


### 3.5.6. Response Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | *Content-Type* | R | 16 | Content type, i.e. *application/json*. |
| 2 | *X-TIMESTAMP* | R | 25 | ± 5 minutes from server time |
| 3 | *X-SIGNATURE* | R | N/A | Result of HMAC calculation(see in 2.4.1) |
| 4 | *X-EXTERNAL-ID* | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 5 | *X-PARTNER-ID* | R | 36 | An identifier to uniquely identify the token requestor. For example: "MTI-STORE" |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *responseCode* | R | 7 | Response code from MTI. |

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| | | | | |
|---|---|---|---|---|
| String | responseMessage | R | 99 | This field describes the response message from MTI. The list of response codes and its messages is shown above. |
| String | originalReference No | R | 12 | Original transaction identifier on service provider system |
| String | *cancelTime* | C | 25 | Cancel time ISO-8601. Must be filled if cancelled transaction success |
| JSON Object | *additionalInfo* | O | | Additional Information |

| JSON additionalInfo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | approvalCode | O | 6 | Approval code of the transaction. Values produced by Issuer. |
| String | referenceNo | R | 12 | Original transaction identifier on service provider system |

### 3.5.7. Response Examples

```
{
      "responseCode": "2007700",
      "responseMessage":"Successful",
      "originalReferenceNo": "506511669694",
      "cancelTime": "2025-03-07T14:22:23",
      "additionalInfo": "{
         "approvalCode":"922967",
      "referenceNo": "506614670670"

         }"
}
```

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## 3.6. QR Payment Credit Notify

### 3.6.1. Description

API to perform debit transaction in exchange for goods and/or services. MTI will trigger payment credit notify to merchant's API. If the request sent by MTI is successfully received by the merchant, the merchant must respond with the response code "2005200" and the response message "Success".

### 3.6.2. Flow

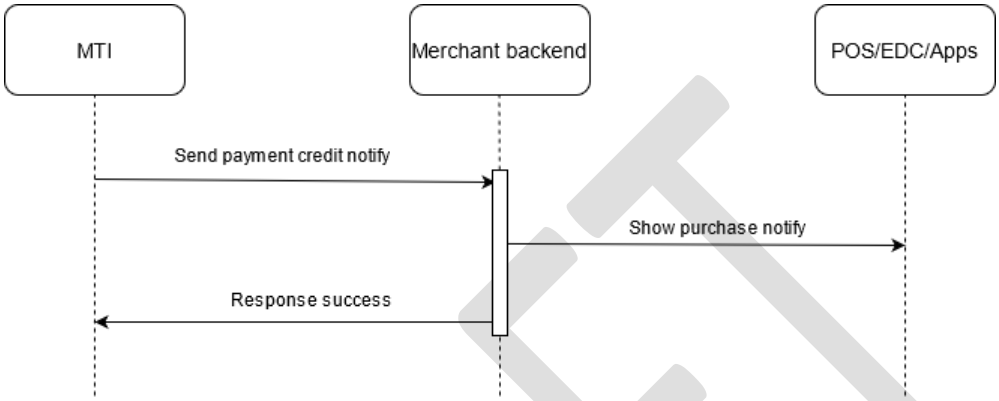


*Figure 4. Payment credit notify flow*

### 3.6.3. Properties

| | |
|---|---|
| **Service Code** | **52** |
| **URL** | **[URL merchant]/qr/qr-mpm-notify** |
| **Communication Type** | Synchronous |
| **Protocol** | HTTPS |
| **METHOD** | POST |

### 3.6.4. Request Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | Content-Type | R | | String represents indicate the media type of the resource (e.g. application/json, application/pdf) |
| 2 | X-TIMESTAMP | R | | Client's current local time in yyyy-MM-ddTHH:mm:ss.SSSTZD format |
| 3 | X-SIGNATURE | R | | Asymetric-Signature :<br>SHA256withRSA (clientSecret, stringToSign) with formula: stringToSign = HTTPMethod +":"+ EndpointUrl +":"+ Lowercase(HexEncode(SHA-256(minify(RequestBody)))) + ":" + TimeStamp |

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| | | | | |
|---|---|---|---|---|
| 4 | X-EXTERNAL-ID | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 5 | X-PARTNER-ID | R | 36 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |
| 6 | CHANNEL-ID | R | 2 | PJP’s channel id<br>Device identification on which the API services is currently being accessed by the end user (customer) |

| JSON Body | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C /O** | **Length** | **Remark** |
| String | originalReferenceNo | R | 12 | Transaction identifier on service provider system. Must be filled upon successful transaction |
| String | latestTransactionStatus | M | 2 | 00 - Success<br>01 - Initiated<br>02 - Paying<br>03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| String | transactionStatusDesc | M | 99 | 00 - Success<br>01 - Initiated<br>02 - Paying<br>03 - Pending<br>04 - Refunded<br>05 - Canceled<br>06 - Failed<br>07 - Not found |
| String | customerNumber | O | 19 | Customer Primary Account Number for transaction.<br>Values produced by Issuer |
| String | destinationNumber | O | 19 | Customer Primary Account Number for transaction.<br>Values produced by Issuer |
| JSON object. | *amount* | R | 12,2 (value)<br>3 (currency) | The field is used during purchase request.<br>For example: Rp 100.000,00 is formatted into:<br>{<br>“value”:“100000.00”,<br>“currency”:”IDR”<br>}. |

| | | | | |
|---|---|---|---|---|
| String | bankCode | O | 8 | Bank code |
| JSON Object | additionalInfo | O | | Additional Information |

| JSON additionalInfo | | | | |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *merchantId* | R | 15 | Merchant identifier. Unique per merchant. Padding left 0. Example: 00007100010926. |
| String | *terminalId* | R | 8 | Terminal identifier. Unique per merchant. i.e. 72001126. |
| String | approvalCode | O | 6 | Approval code of the transaction. Values produced by Issuer. |
| String | *issuerReferenceID* | O | 20 | issuerReferenceID shall contain only numeric. Values produced by Issuer.<br>For example “23021812379800”. |
| String | customerName | O | 30 | Customer Name of QR Payment transaction. Values produced by Issuer |
| String | issuerName | O | 10 | Issuer Name Transaction |
| String | *customerName* | O | 30 | Customer name from issuing |

### 3.6.5. Request Example

```
{
  "originalReferenceNo": "908718002198",
  "latestTransactionStatus": "00",
  "transactionStatusDesc": "Success",
  "customerNumber": “1234123412341234”,
  "destinationNumber": “1234123412341234”,
   "amount ":
  {
      “value” : “100000.00”,
      “currency”:”IDR”
},
   "bankCode": "999",
   "additionalInfo":
       {
            "merchantId": "00007100010926",
            "terminalId": "12345678",
            "approvalCode": "123456",
```

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```
            "customerName": "Customer Pay",
            "issuerName": " Anonyms ",
            "issuerReferenceID": "23021812379800"
    }
}
```


### 3.6.6. Response Parameters

| JSON Header | | | | |
|---|---|---|---|---|
| **No.** | **Field Name** | **R/C/O** | **Length** | **Description** |
| 1 | *Content-Type* | R | 16 | Content type, i.e. *application/json*. |
| 2 | *X-TIMESTAMP* | R | 25 | ± 5 minutes from server time |
| 3 | *X-SIGNATURE* | R | N/A | Result of HMAC calculation(see in 2.4.1) |
| 4 | *X-EXTERNAL-ID* | R | 15 | Numeric String, Reference number that should be unique in the same day |
| 5 | *X-PARTNER-ID* | R | 36 | An identifier to uniquely identify the token requestor. For example: “MTI-STORE” |

| | | | | JSON Body |
|---|---|---|---|---|
| **JSON Type** | **Field Name** | **R/C/O** | **Length** | **Remark** |
| String | *responseCode* | R | 7 | Response code from Merchant |
| String | responseMessage | R | 99 | This field describes the response message from Merchant. |
| JSON Object | additionalInfo | O | | Additional Information |

### 3.6.7. Response Example


```
{
  "responseCode": "2005200",
  "responseMessage":"Successful"
}
```


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