



FriMi Digital Lifestyle Service

API Documentation for Payment Acceptance

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API Documentation - Release 1.9

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Document Version Changes

Version	Version Description	Change Description	Page(s)
1.0	Initial version	-	-
1.1	API interface change	Customer interface message change Connectivity URL changed Token acquiring required to connect to API interface API request/response field changes	4 5 5 6, 7, 8, 9
1.2	API/Customer interface changes	Customer interface image added API request/response field changes (value of module_id / frimi_id / mobile_no & field names of custom_field_01 / custom_field_02) Sample code changes related to field change	4 6 7, 8, 9
1.3	API error message list attached	Error messages returned by the API is attached to the document	11
1.4	API request type selection instruction added	Customer interfacing loading image for standalone systems Instruction on selecting request type	4 6
1.5	Minimum Java run-time version added	If merchant uses java runtime on their environment, need to meet minimum java run-time version specified	5
1.6	MID field length update	Field length updated	6
1.7	API Interface change	Token generation auth method, token generation URL and payment URL changed New request ID type added – '007' REVERSAL	5 6
1.8	Live URLs Included	Live URLs for Token Generation and Payment Request included in document. Auth credentials issued securely after client UAT signoff document is submitted.	5
1.9	Reversal Method documentation correction	Reversal method has been documented in detail with request parameters	10

Contents

1.0 : Customer Interfacing

2.0 : API Interfacing

3.0 : API Error Message List

1.0 : Customer Interfacing

Customers should have an option to select 'FriMi' as a payment option. Customer should see attached FriMi logo to select the FriMi payment option. To identify the customer, customer can enter FriMi ID or FriMi Registered Mobile Number.

Payment Option Name: FriMi

Logo: Use provided logo (frimi-logo.png)

Customer Identification Parameters:

FriMi ID – 10 digit number

FriMi Registered Mobile No – 10 digit number

Either one of above is required to entered by the customer in order to identify the customer. Both FriMi ID and FriMi Registered Mobile No cannot be null.

Once request is sent to FriMi side to get the customer acceptance from FriMi app, below image should be shown to the customer. This instruct the customer on how to approve the transaction.

For web based systems:

Important: Please refer image directly from the URL without having a local copy. We will change this image if required. www.frimi.lk/api/img_desktop.png

For POS or standalone systems:

There should be loader displayed until customer accept the payment from FriMi mobile app. Please use provided image (merchant loader image.png). Resize image as required to suite screen size

For mobile interface:

www.frimi.lk/api/img_mobile.png

Important:

In the event if customer reference number is required to store at Merchant side or print on the slip, it should be masked as follows.

Sample: FriMi ID 2222123456 to be masked as XXXXXX3456

Sample: Mobile Number 0712345678 to be masked as XXXXXX5678

2.0 : API Interfacing

A token should get generated to authenticate the connectivity. Token will have 5 minutes expiry time in live. But in test system, expiry is 1 hour.

Sample:

POST

URL : <https://uatopenapi.nationstrust.com:8243/token>

This URL will be changed when going live to the one below:

Live URL: <https://coapi.nationstrust.com:8243/token>

HEADER

Key

```
curl -k -d "grant_type=client_credentials"
-H "Authorization": "Basic"
"Username": "gPqUh6PQPqZjftmndEQLileKbUga"
"Password": "MXsDmIt8YUZ6oBa4Fz0eujfyOzAa"

Content-Type: application/x-www-form-urlencoded
```

Production Username and Password will be provided for each merchant when going live. For testing, above test data can be used.

BODY

```
Select[x.www.form.unlencoded]
```

Key

```
grant_type=client_credentials
```

Once authentication token is successfully acquired, API can be called.

Test API URL: <https://uatopenapi.nationstrust.com:8243/ntb/vi.0.0/sense>

This URL will be changed when going live to the one below

Live URL: <https://coapi.nationstrust.com:8243/ntb/sense/1.0.0/common>

Important:

If merchant system that used to communicate with FriMi API have Java run-time environment installed, minimum Java runtime version supported by our API manager is 8.0. If not, connectivity & transacting with our API manager will not work properly.

If merchant system does not use Java environments, this is not a requirement.

Payment Request Method

Request (JSON Object):

Merchant should use 'Request' object to send the payment acceptance request to FriMi app. Request object will have 2 sections; header and body. Body should be encoded using base 64 encryption

Field Name	JASON Object Field	Encrypted	Data Type	Description
Terminal ID	tid {H}	No	8 numbers / Mandatory	Terminal ID. FriMi will provide terminal ID(s) based on the integration type
Request ID	request_id {H}	No	14 numbers / Mandatory / Unique	Format should be <tid> <6 digit incremental number> Eg. 12345678000001 6 digit incremental number should get reset daily end of day. Each request sent to FriMi side with request type ID 001, 002 & 004 should have a unique request ID for a particular day.
Application ID	app_id {H}	No	Fixed ID / Mandatory	Default value should be 'FriMi'
Module ID	module_id {H}	No	Fixed ID / Mandatory	Default value should be 'WAM'
Request Type ID	req_type_id {H}	No	3 numbers / Mandatory	Important: For web-based systems, use 002 to submit transaction and then use 003 to inquire status of the transaction for final status For POS/standalone systems use 001 to submit transaction and wait until customer action on the transaction. In case of a connection lost, transaction inquiry can be made with type 003 to get the status Identify type of the request. Codes are; '001' – Transaction will be send to FriMi app and hold request until customer complete the transaction. Once customer complete transaction, response will be returned back '002' – Transaction will be send to FriMi app and intermediate response will be returned back as 'Still Processing'. To get the final response inquire should be made with type 003 periodically '003' – Inquiry for already submitted transaction. Request ID should be same as the initiation request from 001 or 002 type '004' – Transaction will be processed and response will be passed on to 'Callback URL'. This mode is still not available
Transaction date/time	date_time {H}	No	Datetime / Mandatory	Date time stamp of the transaction initiated at Merchant end. Format should be 'dd-Mon-yyyy 24hh:mi:ss'
Sender ID	sender_id {H}	No		Not used for FriMi services
Merchant ID	mid {B}	Yes	10 numbers / Mandatory	Merchant ID. FriMi will provide Merchant ID
FriMI ID	frimi_id {B}	Yes	10 numbers / Mandatory	FriMi ID of the customer OR FriMi registered mobile number of the customer
Mobile Number	mobile_no {B}	Yes	10 numbers	FriMi registered mobile number of the customer.
Txn Amount	txn_amount {B}	Yes	Numbers with 2 decimals / Mandatory	Total transaction value (in LKR). This amount should not include any discounts offered at Merchant end for FriMi customers
Discount Amount	discount_amount {B}	Yes	Numbers with 2 decimals	If any discount is applied at Merchant side for FriMi customers, only discount amount should include here (in LKR)

Description	description {B}	Yes	Up to 50 characters	Description about the transaction
Merchant Ref No	merchant_ref_no {B}	Yes	up to 15 numbers / Mandatory	Reference number of the merchant to identify the transaction
Txn Currency Code	txn_currency_code {B}	Yes	3 numbers / Mandatory	Only rupee transactions (LKR) allowed. Therefore, default code is 144
Custom Field 1	custom_field_01 {B}	Yes		For future use
Custom Field 2	custom_field_02 {B}	Yes		For future use

Sample:

```
{
  "tid": "93118754",
  "request_id": "93118754000001",
  "app_id": "FriMi",
  "module_id": "WAM",
  "req_type_id": "001",
  "date_time": "20-Apr-2017 22:43:22",
  "sender_id": "",
  "body": {
    "frimi_id": "2222777777",
    "merchant_ref_no": "1100312",
    "txn_amount": "100.00",
    "txn_currency_code": "144",
    "mid": "9174006148",
    "mobile_no": "",
    "discount_amount": "10.00",
    "description": "Testing transaction",
    "custom_field_01": "",
    "custom_field_02": ""
  }
}
```

This part should be encoded using base 64 encoding

Encoded Sample:

```
{
  "tid": "93118754",
  "request_id": "93118754000001",
  "app_id": "FriMi",
  "module_id": "WAM",
  "req_type_id": "001",
  "date_time": "20-Apr-2017 22:43:22",
  "sender_id": "",
  "body": "ew0KImZyaW1pX2lkIjoiMjIyMjc3Nzc3NyIsDQoibWVvY2hhbnRfcmlVbWV2vIjoiMTEwMDMxM  
iIsDQoidHhuX2Ftb3VudCI6IjEwMC4wMCIsDQoidHhuX2N1cnJlbnN5X2NvZGUiOiIxNDQiLA0KIm1pZCI6IjKx  
NzQwMDYxNDgiLA0KIm1vYmlsZV9ubyI6IiIsDQoiZGZlY291bnRfYW1vdW50IjoiMTAuMDAiLA0KImRlc2NyaXB  
0aW9uIjoiVGZvdGluZyB0cmFuc2FjdGlvbiIsDQoiY3VzdG9tX2ZpZWxkXzAxIjoiIiwJDQoiY3VzdG9tX2ZpZW  
xkXzAyIjoiIj0KfQ=="
}
```

Response (JSON Object):

Payment acceptance result will be available in 'Response' object. Response object will also have 2 sections similar to request. Body section is encoded using base 64 encoding.

Field Name	JASON Object Field	Encrypted	Data Format	Description
Terminal ID	tid {H}	No	8 numbers / Mandatory	Same value as in the request

Request ID	request_id {H}	No	14 numbers / Mandatory / Unique	Same value as in the request
Application ID	app_id {H}	No	Fixed ID / Mandatory	Same value as in the request
Module ID	module_id {H}	No	Fixed ID / Mandatory	Same value as in the request
Request Type ID	req_type_id {H}	No	3 numbers / Mandatory	Same value as in the request
Response date/time	date_time {H}	No	Datetime / Mandatory	Date time stamp of response initiation from FriMi end Format should be 'dd-Mon-yyyy 24h:mi:ss'
Sender ID	sender_id {H}	No		Same value as in the request
Txn Code	txn_code {B}	Yes	Fixed Code	Provide transaction processing result. '00' – Approved '01' – Still processing '-1' - Rejected
FriMi Txn Ref No	frimi_txn_ref_no {B}	Yes	up to 15 numbers	FriMi transaction reference number. When payment request starts processing from FriMi end, this field will have corresponding reference number. If payment processing not done, this field will be null (Eg. Connectivity to FriMi lost, duplicate transaction etc.)
Merchant Ref No	merchant_ref_no {B}	Yes	up to 15 numbers	Reference number provided by the merchant to identify the transaction
Discount Amount	discount_amount {B}	Yes	Numbers with 2 decimals	If any discount applied from FriMi side for the transaction amount sent by the Merchant, discount amount will be available here
Description	description {B}	Yes	Up to 150 characters	In the event of a payment acceptance failure (txn code -1), reason will be available here. This needs to be shown to customer as this contains payment failure reason. When transaction is success (txn code 00), this field will contain any thing that needs to be communicated to merchant if there are any. That should not display to customer.

Samples:

```

{
  "tid": "93118754",
  "request_id": "93118754000001",
  "app_id": "FriMi",
  "module_id": "WAM",
  "req_type_id": "001",
  "date_time": "20-Apr-2017 22:45:15",
  "sender_id": "",
  "body": {
    "txn_code": "00",
    "frimi_txn_ref_no": "1234567890",
    "merchant_ref_no": "1100312",
    "discount_amount": "0.00",
    "description": "Approved",
  }
}

```

This part will be encoded using base 64 encoding

```

{
  "tid": "93118754",
  "request_id": "93118754000001",
  "app_id": "FriMi",
  "module_id": "WAM",

```



```

"req_type_id": "002",
"date_time": "20-Apr-2017 22:45:15",
"sender_id": "",
"body": {
    "txn_code": "01",
    "frimi_txn_ref_no": "",
    "merchant_ref_no": "1100312",
    "discount_amount": "0.00",
    "description": "Processing",
}

```



This part will be encoded using base 64 encoding

```

}

```

```

{
    "tid": "93118754",
    "request_id": "93118754000001",
    "app_id": "FriMi",
    "module_id": "WAM",
    "req_type_id": "003",
    "date_time": "20-Apr-2017 22:45:15",
    "sender_id": "",
    "body": {
        "txn_code": "01",
        "frimi_txn_ref_no": "",
        "merchant_ref_no": "1100312",
        "discount_amount": "0.00",
        "description": "Processing",
    }
}

```



This part will be encoded using base 64 encoding

```

}

```

```

{
    "tid": "93118754",
    "request_id": "93118754000001",
    "app_id": "FriMi",
    "module_id": "WAM",
    "req_type_id": "003",
    "date_time": "20-Apr-2017 22:45:15",
    "sender_id": "",
    "body": {
        "txn_code": "-1",
        "frimi_txn_ref_no": "1234567890",
        "merchant_ref_no": "1100312",
        "discount_amount": "0.00",
        "description": "Transaction Timeout",
    }
}

```



This part will be encoded using base 64 encoding

```

}

```

Encoded Sample:

```

{
    "tid": "93118754",
    "request_id": "93118754000001",
    "app_id": "FriMi",
    "module_id": "WAM",
    "req_type_id": "003",
    "date_time": "20-Apr-2017 22:45:15",
    "sender_id": "",
    "body": "eyJ0eG5fY29kZSI6Ii0xIiwiaWwiOiJpbnRlc2NyYXB0aW9uIjoieU05NRVRISU5HIFdFTlQgV1J25vIjpuZDVsXzRkaXNjb3VudF9hbW91bnQiOm51bGwsImRlc2NyYXB0aW9uIjoieU05NRVRISU5HIFdFTlQgV1JP\nTkchIFBMRUFTSRBDT05UQUUUIFNvUFBPULQgRk9SIEFTU01TVEFOQ0UifQ=="
}

```

Reversal Method

API Parameter list and definitions

Request (JSON Object):

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Field Name	JASON Object Field	Encrypted	Data Type	Description
Terminal ID	tid {H}	No	8 numbers / Mandatory	Terminal ID. FriMi will provide terminal ID(s) based on the integration type
Request ID	request_id {H}	No	14 numbers / Mandatory / Unique	Format should be <tid><6 digit incremental number> Eg. 12345678000001 6 digit incremental number should get reset daily end of day. Each request sent to FriMi side with request type ID 001, 002 & 004 should have a unique request ID for a particular day.
Application ID	app_id {H}	No	Fixed ID / Mandatory	Default value should be 'FriMi'
Module ID	module_id {H}	No	Fixed ID / Mandatory	Default value should be 'WAM'
Request Type ID	req_type_id {H}	No	3 numbers / Mandatory	Identify type of request. Codes are; '007' - Reversal
Transaction date/time	date_time {H}	No	Datetime / Mandatory	Date time stamp of the transaction initiated at Merchant end. Format should be 'dd-Mon-yyyy 24hh:mi:ss'
Sender ID	sender_id {H}	No	String	Not used for FriMi services
Reversal Request ID	reversal_req_ID	Yes	String / Mandatory	You must put the request ID of the Original request here.
Merchant ID	mid	Yes	String / Mandatory	Merchant ID
date	date	Yes	String / Mandatory	Original transition date

Sample Request

```
{
  "tid": "11111130",
  "request_id": "1111113010000720",
  "app_id": "FriMi",
  "module_id": "WAM",
  "req_type_id": "007",
  "date_time": "20-Apr-2017 22:43:22",
  "sender_id": "",
  "body": "eyJyZXZlcjNhbF9yZXFfSUQioiIxMTEzMTEzMDEwMDAwMTMiLCJtaWQioiIxMTEzMTEwMDAwMDAwMDEiLCJkYXRlIjoimjAxOC0wNC0yNyJ9"
}
```

encoded body

```
{
  "reversal_req_ID": "111111301000013",
  "mid": "111110000000001",
  "date": "2018-04-27"
}
```

3.0 : API Error Message List

Scenario	Error Message
FriMi ID length less than ten digits	Invalid FriMi Account
Not registered wallet	Cannot find your FriMi Account
Non-registered merchant Id or Invalid Merchant Id	Invalid FriMi Merchant Account
Customer not accept the transaction from mobile	Online Payment time out
Customer reject the transaction from mobile	Transaction Declined.
Customer User level is not L1, L2 or L3	Cannot find your FriMi Account
Trying to do transaction more than the limit	Your transaction limit exceeded.
Trying to do debit transaction more than the limit	Your daily debit transaction limits exceeded
Terminal not registered	Invalid Terminal, please contact FriMi support team
Terminal not active	Inactive Terminal, please contact FriMi support team
Currency type is not in DB or not registered for terminal	Invalid Terminal Currency, please contact FriMi support team
Txn Type blocked for that terminal	Invalid Terminal Currency, please contact FriMi support team
Trying to do transaction more than the limit	Transaction Limit exceeded.
Trying to do transaction less than the limit	Invalid transaction amount
number of txn limit is over	Transaction count exceeded, please contact FriMi Support Team
Merchant not registered	Invalid Merchant Account, please contact FriMi support team
Merchant not active	Merchant Account Inactive, please contact FriMi Support Team
Currency type is not in DB or not registered for Merchant	Merchant currency is blocked, please contact FriMi Support team
Merchant txn category is block	Unauthorized merchant ID.
Trying to do transaction more than the limit	Invalid transaction amount
Trying to do transaction less than the limit	Transaction Limit exceeded.
Merchant customer not registered	Merchant entity not found
Merchant customer not active	Inactive Merchant entity
Currency type is not in DB or not registered	Merchant currency is blocked, please contact FriMi Support team
Merchant customer txn category is block	Merchant transaction is blocked, please contact FriMi Support Team
TSP send an error message	TSP - System error, please contact FriMi Support Team
TSP Timeout	TSP - System timeout, please contact FriMi Support Team
TSP Detokenized details are wrong	TSP - De-tokenization failed, please contact FriMi Support Team
Timeout in CTL	System timeout, please contact FriMi Support Team
Timeout in Finnacle	System timeout, please contact FriMi Support Team
Database Error	System timeout, please contact FriMi Support Team