

A Guide to working with Talk Home Payment API



Talk Home Payment API

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Document Management

Document Title	Talk Home Payment API
Document Type	Talk Home Payment API Interface Specification
Revision	1.0
Date	07/08/2017
Author	Puratchimani

Revision History

Revision	Author	Revision Description	Date
1.0	Puratchimani	Talk Home Payment API – Initial Document.	07/08/2017

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This document has been completed in accordance with the requirements of the NOWTEL System Development Methodology.

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We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

NAME

Technical Operations Manager

DATE

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1.0 INTRODUCTION

1.1 Overview

This document describes how the TalkHome Website interacts with Talk Home Payment API for Mi-Pay Payment Solution.

1.2 Purpose

This document contains information on the parameters and response information for all the supported API.

1.2 Acronyms and Abbreviations

API	Application Programming Interface
MSISDN	Mobile Subscriber Integrated Services Digital Network
THM	Talk Home Mobile
THA	Talk Home App
THCC	Talk Home Calling Card
M / O / C	Mandatory / Optional / Conditional
HTTP	Hyper Text Transfer Protocol
JSON	Java Script Object Notation

2.0 API SCOPE

The current scope of the Payment API is to provide the ability to implement the payment with new website for Talk Home, which includes the following products: THM, THA and THCC.

3.0 API TYPE

The API uses the following guidelines shown below:

- Use of URI's to uniquely identify resources (i.e. objects/data records).
- Use of the following HTTP methods: GET & POST to manipulate the resources on the server.
 - GET methods are used for retrieving resources, this will not alter the data in any way.
 - POST methods are used for creating/changing the resources.

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3.1 Supported Code

The Talk Home Payment API supports JSON only for both requests and responses. Below is an example of a subscriber address details object encoded as JSON.

```
{
  "address1": "50 Shad Thames",
  "address2": "Floor 1",
  "address3": "London",
  "address4": "London"
}
```

4.0 MAKING REQUESTS

5.0 STATUS CODES

The API will use the standard HTTP response status codes. By default, successful requests will return a resource object(s) in the response body.

5.1 Common Status Codes

HTTP CODE	MESSAGE	DESCRIPTION
200	Ok	The request succeeded.
400	Bad Request	The request could not be understood due to invalid request.
401	Unauthorized	Either the API authentication credentials haven't been supplied or they're not valid.
404	Not Found	The server has not found anything matching the Request-URI.
405	Method Not Allowed	A request method is not supported for the requested resource; for example, a GET request on a form which requires data to be presented via POST.
500	Internal Server Error	An exception was raised internally and the request could not be processed.

5.2 Unsuccessful Requests

For unsuccessful requests, the response body will contain an array of Error objects.

Elements of the Error Object:

Name	Data Type	Required Field	Description
Status	String	Yes	Http Status code.

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message	String	Yes	Details of the Problem.
errorCode	String	Yes	The error code.

5.3 User Defined Error Codes and Messages

ERROR CODE	MESSAGE
888	Sorry! No record found.
999	Failure! Internal error occurred while processing your request.
998	Invalid request! Please give valid input.

6.0 RESOURCES

Parameters are passed and returned as strings in most cases, any conversion then performed by the code receiving those parameters.

6.1 Payment Start

This URI is used to submit the payment request for unregistered user and this applicable for all three domains TH / THM / NOW.

6.1.1 Request

This URI accepts the following parameters.

Parameter name	Type	M/O/C	Comment
Amount	String	M	The amount of the authorisation (order) request in lowest denomination of currency
Currency	String	M	ISO 3 numeric code for currency
SuccessURL	String	M	URL to direct the user to when transaction completes in success
FailureURL	String	M	URL to direct the user to when transaction completes with failure
Description	String	O	Optional description of the transaction and Max 30 characters
Salutation	String	O	Honorific used as part of a name. Maximum length 5 alphabetic characters. For example Mr, Mrs, Miss etc
FirstName	String	O	Max 30 characters
LastName	String	O	Max 30 characters
AddressLine1	String	O	Max 30 characters

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AddressLine2	String	O	Max 30 characters
City	String	O	Max 20 characters
CountyOrProvince	String	O	Max 20 characters
Country	String	O	ISO 3166-1 Alpha-3 Code
PostalCode	String	O	Max 9 alpha numerics
HomeTelNumber	String	O	Max 15 digits
EmailAddress	String	O	Email address format up to 40 characters
DateTimeLocal	String	O	DD MMM YYYY HH:mm:ss
SubID	String	M	An ID code that identifies the particular Merchant that is using this service
Locale	String	O	Language/Country of the user if known
UniqueID	String	O	The customer unique ID used to identify in the Operator system.
IDType	String	O	The type of unique ID to use.
MSISDN	String	O	The MSISDN of the phone being topped up where the request relates to a topup.

Supported HTTP Methods and URI

POST <https://payment.lab.talkhome.co.uk/{domain}/payment/start>

Header

User-Agent: Fiddler
Host: payment.lab.talkhome.co.uk
Content-Type: application/json
Content-Length: 691

Body

```
{
  "Amount": "1000",
  "Currency": "826",
  "Description": "Test By Nowtel",
  "Salutation": "Mrs",
  "SuccessURL": "http://www.talkhomeapp.com/",
  "FailureURL": "https://www.google.co.uk/",
  "FirstName": "NowtelUser",
  "LastName": "TalkHome",
  "AddressLine1": "50 Shad Thames",
  "AddressLine2": "London",
  "City": "London",
  "CountyOrProvince": "London",
  "Country": "826",
  "PostalCode": "SE1 5TD",
  "HomeTelNumber": "786868678",
  "EmailAddress": "test@testing.com",
  "DateTimeLocal": "03/08/2017 13:02:00",
  "SubID": "NWTTH_UNREG",
  "Locale": "",
```


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```
"UniqueID": "",  
"IDType": "",  
"MSISDN": "447965941421"  
}
```

6.1.2 Process

The code validates the parameters such that mandatory values are present and properly formed. If the validation fails then an appropriate value is returned in the errorCode. If the validation is success then code will generate unique ClientReference and send to Mi-Pay for Payment Start and Mi-Pay will return unique token for this order with PaymentURL.

6.1.3 Response

```
{  
  "status": 200,  
  "message": "Success",  
  "payload": {  
    "token": "BECBA226-D286-4377-9446-DC0EB095C0F1",  
    "paymentURL": "https://talkhome.cte.mipaytest.co.uk/Talk-  
Home/Account/LandingPage?OrderToken=BECBA226-D286-4377-9446-  
DC0EB095C0F1&SubID=NWTTH_UNREG&MerchantID=1330000003&ClientReference=00A274BA712A49  
018ECDC916828C39F5",  
    "clientReference": "00A274BA712A49018ECDC916828C39F5",  
    "errorFields": "",  
    "responseCode": "0"  
  },  
  "errorCode": 0  
}
```

6.2 Payment Retrieve

This URI used to find out the result of a transaction. Whilst you may also find out the result when the customer is redirected back to a success or failure URL, it is recommended that you always call this URI to determine the transition result, since the customer may close their browser during the redirection process. If this happens, the you will not find out the transaction result.

6.1.1 Request

This URI accepts the following parameters.

Parameter name	Type	M/O/C	Comment
Token	String	C	Unique Order reference provided by Mi-Pay in response to PaymentStart
ClientReference	String	C	Only use if the Token is not known
MerchantID	String	C	Internal Mi-Pay use only
SubID	String	M	Same value as used for the original call to PaymentStart method
NoStateChange	String	O	Merchants should omit this parameter

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Supported HTTP Methods and URI

POST https://payment.lab.talkhome.co.uk/th/payment/retrieve

Header

User-Agent: Fiddler
Host: payment.lab.talkhome.co.uk
Content-Type: application/json

Body

```
{  
  "Token": "BECBA226-D286-4377-9446-DC0EB095C0F1",  
  "ClientReference": "00A274BA712A49018ECDC916828C39F5",  
  "SubID": "NWTTH_UNREG"  
}
```

6.1.2 Process

The code validates the parameters such that mandatory values are present and properly formed and the ClientReference matches a configurable regular expression. If the validation fails then an appropriate value is returned in the errorCode.

6.1.3 Response

The following are the return values.

Parameter name	Type	Comment
ResponseCode	String	A numeric value indicating the outcome - 0 = success, see section 4 below for a full list of codes
ErrorFields	String	A useful debug field indicating more detail (when available) if a call has failed
Token	String	Mi-Pay generated unique reference
ClientRef	String	Reference provided by Merchant
MerchantID	String	Internal Mi-Pay Merchant ID
AuthAmount	String	Amount of original payment
Currency	String	
CaptureAmount	String	Amount in Capture request (after PaymentComplete called)
State	String	Current state of Order (see the list in section 2.6 above)
LastUpdated	String	
OrderResult	String	See Appendix for possible values
Description	String	These values will be the same as passed in the PaymentStart method (they do not reflect any changes made by the user when they enter data on the Mi-Pay pages)
Salutation	String	

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FirstName	String	These values will be the same as passed in the PaymentStart URI (they don't reflect any changes made by the user when they enter data on the Mi-Pay pages)
LastName	String	
AddressLine1	String	
AddressLine2	String	
City	String	
CountyOrProvince	String	
Country	String	
PostalCode	String	
HomeTelNumber	String	
EmailAddress	String	
DateTimeLocal	String	
OrderID	String	The Order ID of the transaction
ClientData	String	An XML representation of the client data
FinalAmount	String	The final charged amount for the transaction
State	String	The status code of the transaction
SuccessURL	String	An echo of the URL sent by CLIENT
FailureURL	String	An echo of the URL sent by CLIENT
Locale	String	Language/Country of the user if known.
MSISDN	String	Echo of value passed to PaymentStartForKnownUser method
UniqueIDValue	String	Echo of value passed to PaymentStartForKnownUser method

Response

```
{
  "status": 200,
  "message": "Success",
  "payload": {
    "uniqueIDValue": "",
    "uniqueIDType": "",
    "userID": "",
    "registeredMerchantID": "1330000002",
    "responseCode": "0",
    "errorFields": "",
    "token": "BECBA226-D286-4377-9446-DC0EB095C0F1",
    "clientRef": "00A274BA712A49018ECDC916828C39F5",
    "merchantID": "1330000003",
    "authAmount": 1000,
    "currency": "826",
    "captureAmount": "",
    "lastUpdated": "07/08/2017 09:32:03",
    "orderResult": "00",
    "description": "Test By Nowtel",
    "salutation": "Mr",
  }
}
```

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```
"firstName": "NowtelUser",
"lastName": "TalkHome",
"addressLine1": "50 Shad Thames",
"addressLine2": "London",
"city": "London",
"countyOrProvince": "London",
"country": "826",
"postalCode": "SE1 5TD",
"homeTelNumber": "786868678",
"msisdn": "447965941421",
"emailAddress": "test@testing.com",
"dateTimeLocal": "",
"clientData": "<?xml version='1.0' encoding='UTF-8'><PostXml><Fields><EmailAddress>test@testing.com</EmailAddress><FailureURL>http
s://www.google.co.uk/</FailureURL><LastName>TalkHome</LastName><AddressLine2>London
</AddressLine2><Description>Test By
Nowtel</Description><RequestIPAddress>217.33.40.242</RequestIPAddress><Salutation>M
r</Salutation><Country>826</Country><AddressLine1>50 Shad
Thames</AddressLine1><PostalCode>SE1
5TD</PostalCode><CountyOrProvince>London</CountyOrProvince><HomeTelNumber>786868678
</HomeTelNumber><FirstName>NowtelUser</FirstName><SuccessURL>http://www.talkhomeapp
.com/</SuccessURL><City>London</City><ClientReference>00A274BA712A49018ECDC916828C3
9F5</ClientReference><MSISDN>447965941421</MSISDN></Fields></PostXml>",
"finalAmount": 0,
"state": 50,
"originalSwitchKey": "BECBA226D28643779446DC0EB095C0F1",
"agentUserName": "",
"successURL": "http://www.talkhomeapp.com/",
"failureURL": "https://www.google.co.uk/",
"locale": ""
},
"errorCode": 0
}
```

6.3 Payment Complete

Must call this URI to complete a payment transaction in all cases. This tells Mi-Pay to complete the payment with the bank. If this URI is not called successful, the transaction will not be completed, and will automatically be cancelled. The customer will not be charged, and the client will not receive settlement for the transaction.

6.1.1 Request

This will accept the following parameters.

Parameter name	Type	M/O/C	Comment
Token	String	M	Unique Order reference provided by Mi-Pay in response to PaymentStartForKnownUser
ClientReference	String	C	Optional unique reference for order provided by Merchant in PaymentStartForKnownUser
CaptureAmount	String	O	If the final amount is different from the amount originally authorised. Usually this parameter should be left blank.
SubID	String	M	Same value as used for the original call to PaymentStart method

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Supported HTTP Methods and URI

POST https://payment.lab.talkhome.co.uk/th/payment/complete

Header

User-Agent: Fiddler
Host: payment.lab.talkhome.co.uk
Content-Type: application/json

Body

```
{
  "Token": "BECBA226-D286-4377-9446-DC0EB095C0F1",
  "ClientReference": "00A274BA712A49018ECDC916828C39F5",
  "SubID": "NWTTH_UNREG"
}
```

6.1.2 Process

The code validates the parameters such that mandatory values are present and properly formed and the ClientReference matches a configurable regular expression. If the validation fails then an appropriate value is returned in the errorCode.

6.1.3 Response

```
{
  "status": 200,
  "message": "Success",
  "payload": {
    "clientReference": "00A274BA712A49018ECDC916828C39F5",
    "errorFields": "",
    "responseCode": "0"
  },
  "errorCode": 0
}
```

6.4 Payment Cancel

If the client is unable to fulfil the order, the client should call this URI to cancel the payment. This will, in most cases, release the reserved funds on the customer's bank account (although some banks will delay the cancellation by a few days).

If the client does not make this call, and does not make a PaymentComplete call either, the default action is that the transaction will be cancelled anyway. However, it is best practice to always make a call, and will potentially release funds earlier on a customer's bank account. Thi

6.1.1 Request

This will accept the following parameters.

Parameter name	Type	M/O/C	Comment
Token	String	M	Unique Order reference provided by Mi-Pay in response to PaymentStartForKnownUser

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ClientReference	String	C	Optional unique reference for order provided by Merchant in PaymentStartForKnownUser
CaptureAmount	String	O	If the final amount is different from the amount originally authorised. Usually this parameter should be left blank.
SubID	String	M	Same value as used for the original call to PaymentStart method

Supported HTTP Methods and URI

POST <https://payment.lab.talkhome.co.uk/th/payment/cancel>

Header

User-Agent: Fiddler
Host: payment.lab.talkhome.co.uk
Content-Type: application/json

Body

```
{
  "Token": "BECBA226-D286-4377-9446-DC0EB095C0F1",
  "ClientReference": "00A274BA712A49018ECDC916828C39F5",
  "SubID": "NWTTH_UNREG"
}
```

6.1.2 Process

The code will validate the parameters such that mandatory values are present and properly formed; and the ClientReference matches a configurable regular expression.

Mi-Pay will then cancel the payment. The method should then respond back to the calling code.

6.1.3 Response

```
{
  "status": 200,
  "message": "Success",
  "payload": {
    "clientReference": "00A274BA712A49018ECDC916828C39F5",
    "errorFields": "State is invalid",
    "responseCode": "300002"
  },
  "errorCode": 0
}
```