

PayTabs iOS SDK Integration Guide

INTEGRATION GUIDE
VERSION 3.0

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Revision History

Rev	Description of Change	Date
1.0	- New Document	15/01/2015
1.1	- Formatted Document - Added documentation feedback email address. - Added important note for secret key and spaces. - Updated credit card expiry dates. - Added code on how to view response codes	29/06/2015
1.2	- Added the different response codes and their description. - Added important note on simulators.	16/08/2015
1.3	- General Document Enhancements	21/01/2016
1.4	- Updated Header files screenshot	25/01/2016
1.5	- Add screenshots of the application	02/02/2016
2.0	- Update SDK to Version 2.0 - Added section "Frequently Asked Questions"	21/03/2016
2.1	- Added Tokenization feature	18/07/2016
2.2	- Added parameter card_last_four_digits in verify transaction response - Added FAQ about hybrid frameworks & Swift Code	27/07/2016
2.3	- Added FAQs related to iOS SDK - Added Sample Response Codes for Paytabs IPN	29/06/2017
2.4	- Remove screenshots and details related to Scan To Pay	28/08/2017
2.4.1	- Update Test Cards Expiry date	20/02/2018
2.5	- Added New Refund API response for successful refund processed - Added New IPN response for rejected refund request	04/06/2018
2.6	- A complete revamp of SDK - New mechanism of initiating and integrating SDK - Callbacks added to handle transaction responses - SDK is upgraded to static iOS framework with encrypted resources bundle - Added validations to minimize errors	12/12/2017
3.0	- New UI/UX of SDK and updated validation rules - Added theme customization - Removal of unnecessary parameters - Alignment with the updated system - Fixations and improvements in the flow	13/09/2018

1 Overview

At PayTabs, we are committed to providing the most secure, reliable and user-friendly payment processing solutions. By partnering with us for your payment processing needs, you can be confident that payment transactions will be processed quickly and efficiently, and your customers' information will be safe.

You'll enjoy our iOS SDK's easy set-up and easy integration into the iOS applications you develop. Our two-level fraud protection system protects transaction data throughout the payment process. With PayTabs as your payment processor, you'll benefit from the fastest, most secure, and cost-effective payment processing system in the industry.

It's important to note that the PayTabs APIs and SDKs are constantly evolving, and updates are usually done every quarter, if required. PayTabs will intimate any major change, so it's important that you check your merchant dashboard notifications or e-mail, frequently to be updated.

1.1 Test Merchant Account v/s Live Merchant Account

PayTabs does not offer an explicit Sandbox / Testing environment. But using a demo account, you can freely test all the functionalities and integrate our API, SDK and Plugin without any hassle. In order to move to LIVE PRODUCTION environment, you will need to activate your LIVE MERCHANT ACCOUNT by clicking on [GO LIVE](#) through your PayTabs Merchant Account. PayTabs requires some personal information, documents and other details related to your business to validate your business. Once your Merchant Account is activated, you will have been moved to the LIVE PRODUCTION environment.

1.2 Target Audience

This document is intended for third party iOS developers who wish to develop iOS applications that interact with PayTabs.com

1.3 Assistance

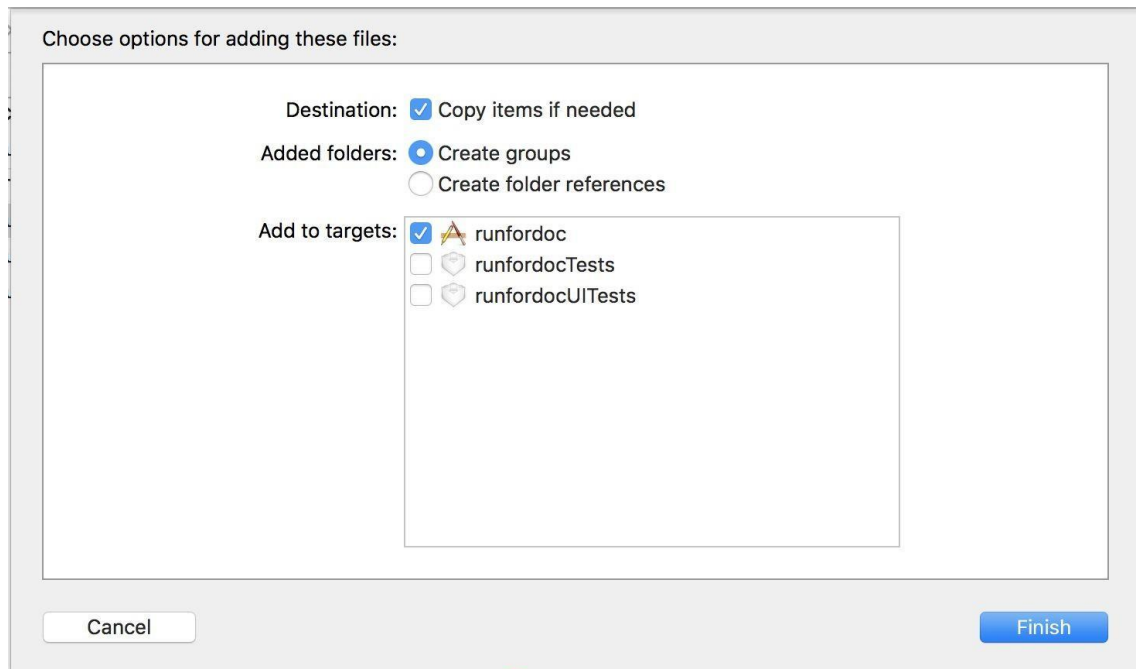
If you require assistance, please check out our [Frequently Asked Questions](#) or chat live with our support staff or email us at support@paytabs.com.

1.4 Documentation Feedback

Help us improve the PayTabs iOS SDK Integration Guide, by sending your feedback to support@paytabs.com.

2 Importing the SDK iOS Project

1. Extract the **PayTabs iOS SDK.zip** file which contains two folders, **Framework** and **Resources** along with samples.
2. **Framework** folder contains *paytabs-ios.framework* (static iOS framework) and *Resources.bundle* (includes interface files, images, local files, etc).
3. Add *paytabs-ios.framework* into your workspace Frameworks folder by dragging and with **Copy items if needed** checked.



Note: Please wipe out completely if you have any previous version already added in your codebase i.e. Delete it with **"Move to trash"** option and removing it from your Xcode project navigator.

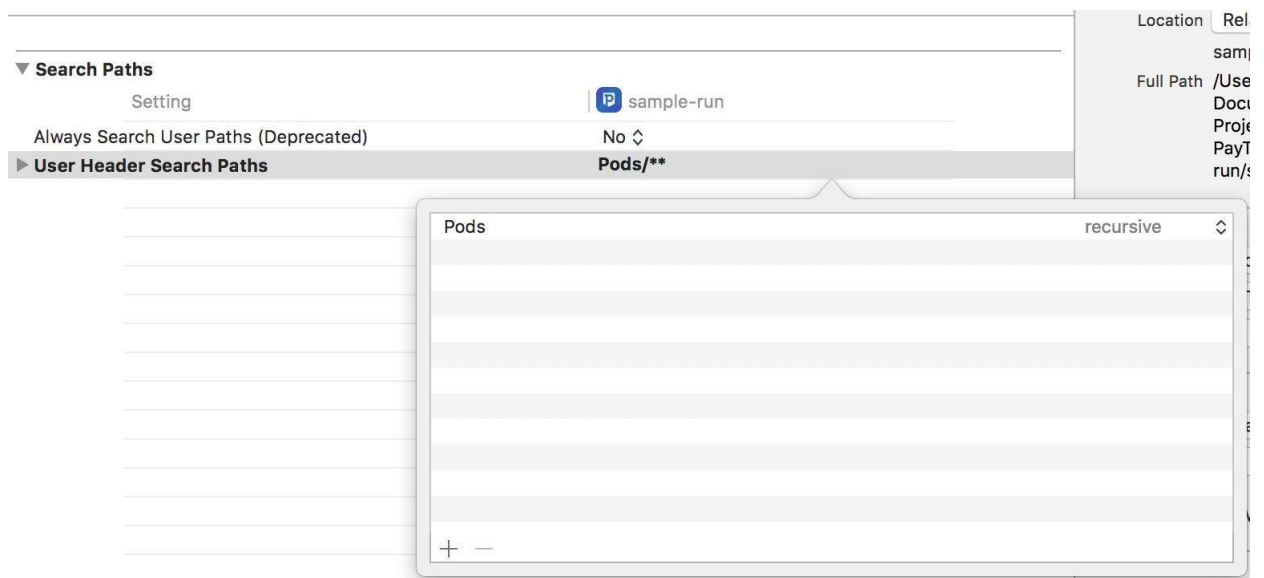
4. Perform the same steps for *Resources.bundle*.
5. Add following pod dependencies in your podfile, don't add those which are already in the podfile. Make sure you have uncommented platform:ios, 'x.x'. Your podfile should look like,

```

1  # Uncomment the next line to define a global platform for your project
2  # platform :ios, '9.0'
3
4  target 'sample-run' do
5    # Comment the next line if you're not using Swift and don't want to use dynamic frameworks
6    use_frameworks!
7
8    # Pods for sample-run
9    pod 'BIObjCHelpers'
10   pod 'AFNetworking'
11   pod 'Mantle'
12   pod 'Reachability'
13   pod 'SDWebImage'
14   pod 'DGActivityIndicatorView'
15   pod 'Lockbox'
16   pod 'YLGIFImage'
17   pod 'SBJson'
18   pod 'PINCache'
19   pod 'IQKeyboardManager'
20
21   target 'sample-runTests' do
22     inherit! :search_paths
23     # Pods for testing
24   end
25
26   target 'sample-runUITests' do
27     inherit! :search_paths
28     # Pods for testing
29   end
30
31 end
32
33

```

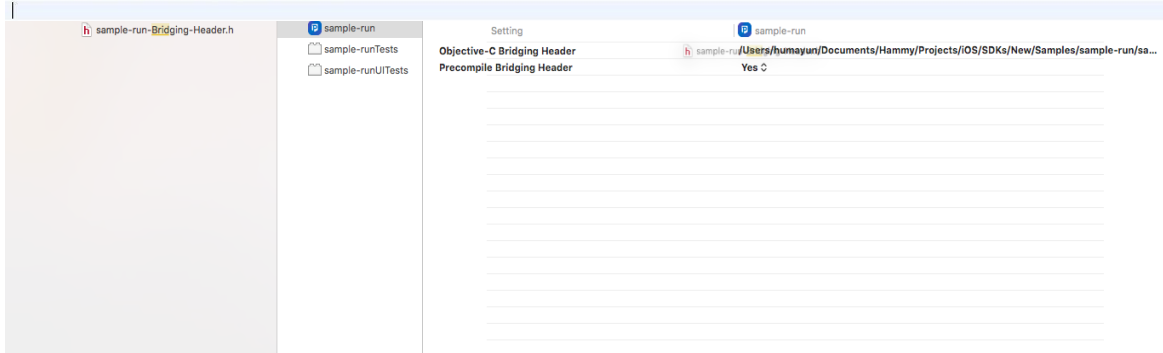
6. Please add **Pods** in **User Header Search Paths** with **Recursive** option within your app target.



7. If your application programming language is **Swift**, you will need to have **Bridging Header** for importing `#import <paytabs-iOS/paytabs_iOS.h>`. Also, give your bridging header path against **Objective-C Bridging Header** in your app target's build settings.

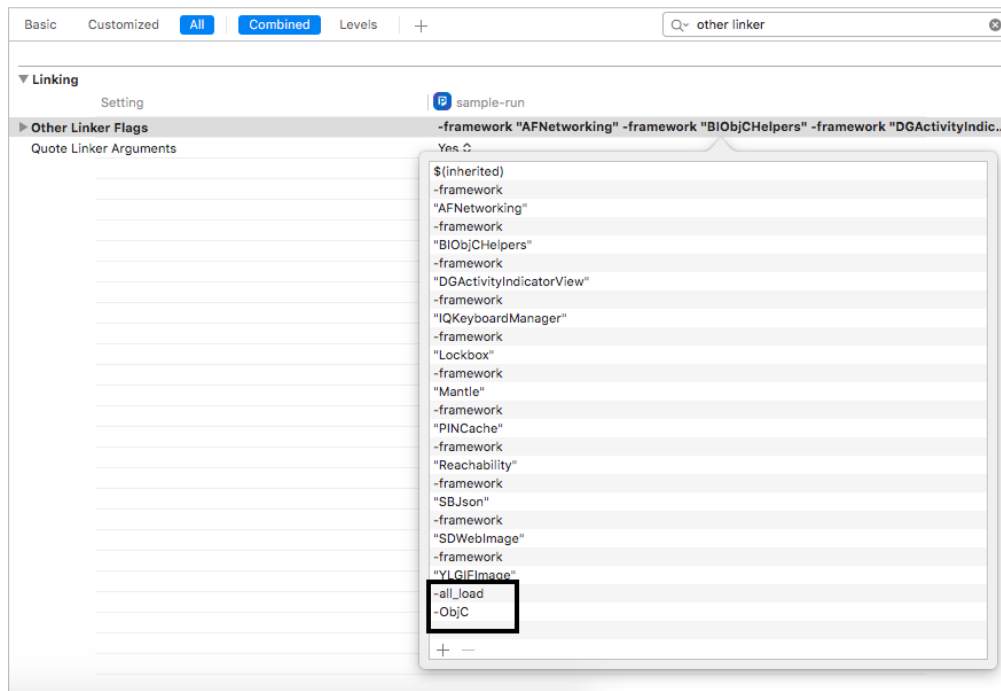
```
//  
// sample-run-Bridging-Header.h  
// sample-run  
//  
// Created by PayTabs LLC on 10/5/17.  
// Copyright © 2017 PayTabs LLC. All rights reserved.  
//  
  
#ifndef sample_run_Bridging_Header_h  
#define sample_run_Bridging_Header_h  
  
#import <paytabs-iOS/paytabs_iOS.h>  
  
#endif /* sample_run_Bridging_Header_h */
```

8.



t

wo flags, `-all_load` and `-ObjC` in **Build Settings/Other linker flags**.



3 Integrating the SDK with your application

3.1 SDK Parameters

<i>Element</i>	<i>Description</i>	<i>Format</i>
XIB name	<u>Required</u> SDK initial .xib to invoke it.	String It's value should always be <i>PTFWInitialSetupView</i> .
Bundle	<u>Required</u> Resources bundle of SDK which contains images, xibs, local data files, etc.	NSBundle/Bundle See example code to check how it is passed in SDK.
View frame	<u>Required</u> CGRect (x, y, width, height) in which is sdk is intended to show.	CGRect E.g. <i>self.view.frame</i>
Amount	<u>Required</u> The amount of the transaction	Float Up to 3 Decimal places E.g.: 134.999
Customer Title	<u>Required</u> Name of your customer.	String 32 characters E.g.: Mr. John Doe

Tax Amount	<u>Required</u> The tax amount of the transaction	Float Up to 3 Decimal places E.g.: 134.999
Currency Code	<u>Required</u> Currency of the amount stated. 3 character ISO currency code	String E.g.: <i>USD for US dollar</i> <i>AED for Emirati Dirham</i> <i>BHD for Bahraini Dinar</i> <i>SAR for Saudi Riyal</i>

SDK Language	<u>Required</u> Use to set language of SDK.	String Either “ar” or “en”
Shipping Address	<u>Required</u> Shipping address of the customer. In case you don’t have physical goods, you can pass the same details as the billing details	String Up to 40 characters E.g.: <i>Flat 11 Building 222 Block 333 Road 444 Manama Bahrain</i>
Shipping City	<u>Required</u> Shipping City of the customer	String Up to 13 characters E.g.: <i>Manama</i>
Shipping Country	<u>Required</u> Shipping country of the customer	String 3 character ISO country code E.g.: <i>BHR</i>
Shipping State	<u>Required</u> Shipping State of the customer 2 characters ISO state code for US and Canada	String 32 characters E.g.: <i>Manama</i> E.g.: if state is New York then the state field should be NY

Shipping ZIP code	<u>Required</u> Shipping postal code of the customer	String From 5 to 9 characters E.g.: 12345
Billing Address	<u>Required</u> Complete Address of the customer. Multiple address lines will be merged into one single line.	String Up to 40 characters E.g.: <i>Flat 11 Building 222 Block 333 Road 444 Manama Bahrain</i>
Billing City	<u>Required</u> Name of the billing city selected by customer	String Up to 13 characters E.g.: <i>Manama</i>
Billing Country	<u>Required</u> 3 character ISO Country of the customer	String 3 character ISO country code E.g.: <i>BHR for Bahrain ARE for UAE SAU for Saudi Arabia</i>
Billing State	<u>Required</u> Billing State entered by the customer. 2 characters ISO state code for US and Canada	String Up to 32 characters E.g.: <i>Manama</i> E.g.: if state is New York, then the state field should be NY
Billing ZIP code	<u>Required</u> Billing Postal code provided by the customer. In case the country doesn't have a valid postal code, you can pass the country international dialing code (00973)	String From 5 to 9 characters E.g.: 12345
Order ID	<u>Required</u> The order id from your App to be able to map your order's to PayTabs transactions	String 32 characters E.g.: 4578

Phone Number	<u>Required</u> Phone Number of the Customer	String 32 characters E.g.: 00973312345678
Customer Email	<u>Required</u> Email of the Customer	String 32 characters E.g. customer_email@paytabs.com
Merchant Email	<u>Required</u> Merchant email that you use to sign up and/or login into PayTabs Merchant Dashboard	String Up to 128 characters E.g.: merchant@myapp.com
Secret Key	<u>Required</u> SECRET Key generated by merchant dashboard.This can be found by logging in to your Merchant Dashboard > Secret Key	String Up to 128 characters E.g.: Mao8sdhasfyahosdap9sd
Tokenization	<u>Required</u> If true, SDK will return a token to use it for tokenized payments	Bool Either "true" or "false"
Assignee Code	<u>Required</u> Its value should always be "SDK".	String
Theme Color	<u>Required</u> Its value should be the color you want in the SDK	UIColor e.g. for White, it should be R: 255, G: 255, B: 255
Light Theme	<u>Required</u> If true, labels and buttons inside SDK will be in black colour else it will be in white color	Bool Either "true" or "false"

3.2 Sample Code

The following steps show what is needed to be able to integrate your application with the SDK,

1. Create instance variable for **PTFWInitialSetupViewController** in your UIViewController

```
// MARK: Instance Variables
var initialSetupViewController: PTFWInitialSetupViewController!
```

2. Implement events for initiating and closing SDK. (follow the sample app for the examples)

```
// MARK: Callbacks
private func configureCallbacks() -> Void {
    weak var weakSelf = self

    self.launcherView.didPressHitTestRunButtonCallback = {
        weakSelf?.handleHitTestRunTapEvent()
    }

    self.launcherView.didPressResponseViewCloseButtonCallback = {
        weakSelf?.handleCloseResponseViewTapEvent()
    }
}

// MARK: Event Methods
// MARK: Initiate SDK Event
private func handleHitTestRunTapEvent() {
    if (self.launcherView.amountTextField.text?.count == 0) {
        let alertController = UIAlertController(title: "Alert", message:
            "Amount is empty!", preferredStyle: UIAlertControllerStyle.alert)
        alertController.addAction(UIAlertAction(title: "Dismiss", style: UIAlertActionStyle.default,handler:
            nil))

        self.present(alertController, animated: true, completion: nil)
    }else {
        self.initiateSDK()

        self.view.addSubview(initialSetupViewController.view)
        self.addChildViewController(initialSetupViewController)

        initialSetupViewController.didMove(toParentViewController: self)
    }
}

// MARK: Close SDK Event
private func handleBackButtonTapEvent() {
    self.initialSetupViewController.willMove(toParentViewController: self)
    self.initialSetupViewController.view.removeFromSuperview()
    self.initialSetupViewController.removeFromParentViewController()
}

// MARK: Close Response window Event
private func handleCloseResponseViewTapEvent() {
    self.launcherView.responseView.isHidden = true
}
```

3. Initiate SDK on the relevant action e.g. it is being initiated on the tap of **hit test button** after some basic validations.
4. Call custom **init** static function of **PTFWInitialSetupViewController** with the values and by keeping the above mentioned notes in consideration.

```

51 // MARK: Private Methods
52 // MARK: Objects
53 private func initiateSDK() {
54     self.launcherView.endEditing(true)
55     let bundle = Bundle(url: Bundle.main.url(forResource: ApplicationResources.kFrameworkResourcesBundle,
56                                             withExtension: "bundle")!)
57
58     self.initialSetupViewController = PTFWInitialSetupViewController.init(
59         nibName: ApplicationXIBs.kPTFWInitialSetupView,
60         bundle: bundle,
61         andWithViewFrame: self.view.frame,
62         andWithAmount: Float(self.launcherView.amountTextField.text!),
63         andWithCustomerTitle: "PayTabs",
64         andWithCurrencyCode: self.launcherView.currencyTextField.text!,
65         andWithTaxAmount: 0.0,
66         andWithSDKLanguage: (self.launcherView.isArabic.isOn) ? "ar" : "en",
67         andWithShippingAddress: "غنوان البريد الإلكتروني",
68         andWithShippingCity: "jeddah 48493 .. 29393 غنوان / يكتب الغنوان",
69         andWithShippingCountry: "BHR",
70         andWithShippingState: "123",
71         andWithShippingZIPCode: "NBsdjbd.",
72         andWithBillingAddress: "غنوان البريد الإلكتروني",
73         andWithBillingCity: "Manama",
74         andWithBillingCountry: "BHR",
75         andWithBillingState: "Manama",
76         andWithBillingZIPCode: "0097",
77         andWithOrderID: "00987",
78         andWithPhoneNumber: "0097335532915",
79         andWithCustomerEmail: self.launcherView.customerEmailTextField.text!,
80         andIsTokenization: self.launcherView.tokenizationSwitch.isOn,
81         andWithMerchantEmail: self.launcherView.merchantEmailTextField.text!,
82         andWithMerchantSecretKey: self.launcherView.merchantSecretKeyTextField.text!,
83         andWithAssigneeCode: "SDK",
84         andWithThemeColor: UIColor(red: CGFloat((self.launcherView.redThemeValue.text! as
85                                             NSString).doubleValue/255), green: CGFloat((self.launcherView.greenThemeValue.text! as
86                                             NSString).doubleValue/255), blue: CGFloat((self.launcherView.bluehemeValue.text! as
87                                             NSString).doubleValue/255), alpha: 1.0),
88         andIsThemeColorLight: self.launcherView.isLightTheme.isOn)
89 }

```

3.3 SDK Response

Implement two callbacks, **didReceiveBackButtonCallback** and **didReceiveFinishTransactionCallback** to close the SDK and handle the SDK response respectively.

```

weak var weakSelf = self
self.initialSetupViewController.didReceiveBackButtonCallback = {
    weakSelf?.handleBackButtonTapEvent()
}

self.initialSetupViewController.didReceiveFinishTransactionCallback = {(responseCode, result, transactionID,
    tokenizedCustomerEmail, tokenizedCustomerPassword, token, transactionState) in
    self.launcherView.responseCodeLabel.text = "\(responseCode)"
    self.launcherView.resultLabel.text = "\(result)"
    self.launcherView.transactionIDLabel.text = "\(transactionID)"
    self.launcherView.customerEmailLabel.text = "\(tokenizedCustomerEmail)"
    self.launcherView.customerPasswordLabel.text = "\(tokenizedCustomerPassword)"
    self.launcherView.transactionStateLabel.text = "\(transactionState)"
    self.launcherView.tokenValueLabel.text = "\(token)"

    self.launcherView.responseView.isHidden = false

    weakSelf?.handleBackButtonTapEvent()
}

```

The callback, **didReceiveFinishTransactionCallback** contains seven values in the response after the transaction is processed:

<i>Value</i>	<i>Variable</i>	<i>Description</i>
Response Code	responseCode	Response code of the transaction.
Result	result	Result or description of the transaction.
Transaction ID	transactionID	Transaction identifier for tracking the transactions.
Tokenized Email	tokenizedCustomerE mail	Email address which has been tokenized if tokenization is enabled for future use.
Tokenized Password	tokenizedCustomerPa ssword	Password which has been tokenized if tokenization is enabled for future use.
Transaction State	transactionState	State of the transaction, either true or false.
Token	token	Token which is returned for future transactions.

The possible values for the response code variable are as follows:

<i>Error Code</i>	<i>Description</i>
100	Payment is completed Successfully.
481	<p>This transaction may be suspicious, your bank holds for further confirmation. Payment Provider has rejected this transaction due to suspicious activity; Your bank will reverse the dedicated amount to your card as per their policy.</p> <p>Important Note: These transactions are rejected by our fraud monitoring tools; however the transactions are only authorized (Not settled). In case you verify the transaction is genuine you can contact us to force accept the transaction after checking if it is not fraud and we might ask verification documents like ID card and front side of credit card used showing only name and last 4 digits, otherwise the transaction amount will be released back to the cardholder according to the issuing bank policy. In case you are using IPN, it will post the response once the transaction is force Accepted from our side</p>

Any other response code	Any other response means that the transaction has been rejected and the rejection reason is the description of the corresponding response code
**	The Complete list of response codes and their description can be found in Merchant Dashboard > Help > Reason Codes

3.4 Language Configuration

In **sdklanguage** you can set the language preference. For Arabic, it will be “ar” and for English, it will be “en”. By default, it will be “en”.

Currently PayTabs_SDK has only two languages

- English (“en”)
- Arabic (“ar”)

3.5 Important Notes

- 1 This iOS SDK will not work on simulator devices.
- 2 There should be no spaces preceding or succeeding your **Secret Key**.
- 3 **Merchant Email** and **Secret Key** both should belong to the same merchant.

4. Verify Transaction

This method verifies the result of the payment. When a payment is processed, you will receive transaction id in the response. When the customer completes a payment and is redirected back to your app, the transaction_id is used to verify the status of the payment whether it is a successful transaction or a failed transaction.

PATH https://www.paytabs.com/apiv2/verify_payment_transaction

REQUEST METHOD POST

PRODUCTION LIVE

4.1 Request

<i>Element</i>	<i>Description</i>	<i>Format</i>
merchant_email	<u>Required</u> Merchant email that you use to sign up and/or login into PayTabs Merchant Dashboard	String Up to 128 characters E.g.: foof@foo.com

secret_key	<u>Required</u> SECRET Key generated by merchant dashboard	String Up to 128 characters E.g.: <i>Mao8sdhasfyahosdap9sd</i>
transaction_id	<u>Required</u> This is the transaction_id that is returned in the response of the payment.	String Up to 12 characters E.g.: <i>130017</i>
order_id	<u>Optional</u> This is the order id from your system, you can use that instead of transaction_id parameter	String 32 characters E.g.: <i>4578</i>

4.2 Response

<i>Element</i>	<i>Description</i>	<i>Format</i>
result	The string representation for result, whether transaction has succeeded or failed and the reason why your transaction failed.	String E.g.: <i>Payment is completed.</i>
response_code	The response code / error code of the API call. Complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes	String Up to 4 characters E.g.: <i>4002</i>
pt_invoice_id	The invoice/PayPage ID of the transaction, this is available only for PayPage and API integration it will be null in case of mobile SDKS transactions	String Up to 12 characters E.g.: <i>null</i>
amount	The transaction amount.	String Up to 3 Decimal places E.g.: <i>123.399</i>
currency	The currency of the transaction amount.	String 3 character ISO country code E.g.: <i>BHR</i>
transaction_id	The ID of the latest transaction that occurred for this invoice	String Up to 12 characters E.g.: <i>90094</i>
order_id	This is the order id from your system.	String 32 characters E.g.: <i>4578</i>
card_last_four_digits	This is the last four digits of the credit card used in the transaction	String 32 characters E.g.: <i>1111</i>

4.3 Response Codes

Error Code	Description
4001	Missing parameters
4002	Invalid Credentials
4003	There are no transactions available.
0404	You don't have permissions
100	Payment is completed Successfully.
481	This transaction may be suspicious, your bank holds for further confirmation. Payment Provider has rejected this transaction due to suspicious activity; Your bank will reverse the dedicated amount to your card as per their policy. Important Note: These transactions are rejected by our fraud monitoring tools; however the transactions are only authorized (Not settled). In case you verify the transaction is genuine you can contact us to force accept the transaction after checking if it is not fraud and we might ask verification documents like ID card and front side of credit card used showing only name and last 4 digits, otherwise the transaction amount will be released back to the cardholder according to the issuing bank policy. In case you are using IPN, it will post the response once the transaction is force Accepted from our side
**	The Complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes

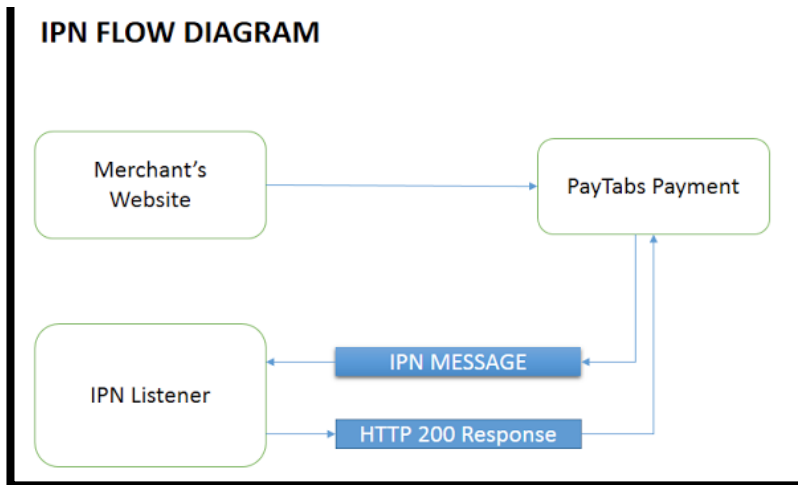
5. PayTabs IPN (Instant Payment Notification)

5.1 How IPN Works

When a customer makes a payment on the mobile SDK, the transaction is processed by PayTabs and a confirmation is sent back to the customer on the merchant's application. Additionally, a notification email will be sent to the merchant.

This scenario, leave no scope for any related ERP or E-commerce or Accounting Systems to be updated. This is where IPN comes in.

As soon as a transaction is created or altered, PayTabs IPN will instantly send a notification to the merchant's specified IPN Listener URL, which can have any code that will assist in updating ERP or dependent systems. Alternatively, the merchant may wish to save this information in his local database.



5.2 Set up your IPN Listener

1. Create an IPN Listener that receives and processes the IPN messages sent by PayTabs.
2. Log into your PayTabs Merchant Account > Go to “My Profile” and click on “Edit”.
3. Enter the URL of your IPN Listener and click on “Submit”. IPN will not work with a local host IPN Listener URL. Testing the IPN Message Service is only possible on a publicly hosted URL.

The screenshot shows the 'Edit' profile page in the PayTabs merchant account. The 'Paypage Currency' is set to 'USD'. The 'IPN Listener URL' field is highlighted with a red rectangle. Below it, there is a field for 'IPN Listener URL for Transactions Reports'. At the bottom, there is a 'Payment Timeout (Seconds)' section with a checked 'No Timeout' option. The 'Submit' and 'Cancel' buttons are at the bottom right.

Now your IPN Service is ready to go!

5.3 IPN Events

Your listener will be triggered on the following events:

1. Successful Transaction
2. Rejected Transaction
3. Transaction, Force Accepted by PayTabs
4. Refunded Transaction

5.4 Contents / Data of the IPN

The Instant Payment Notification will return the following information depending on the type of event that has occurred.

<i>Element</i>	<i>Description</i>	<i>Format</i>
transaction_id	PayTabs Transaction ID	String E.g.: 12345
order_id	Merchant's Website order ID, this the same as reference_no value posted in Create PayPage call	String Up to 12 characters E.g.: 90094
response_code	The same as response _code value returned in the response of verify_payment API call. A complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes	String Up to 4 characters E.g.: 100, 481
customer_name	Name of the Customer	String 32 characters E.g.: John
customer_email	Email of the customer	String 32 characters E.g.:customer@domain.com
transaction_amount	The transaction amount.	String Up to 3 Decimal places E.g.: 123.399
transaction_currency	The currency of the amount stated. 3 character ISO currency code	String E.g.: BHD
customer_phone	Phone number of the customer	String Minimum 6 numbers up to 32 numbers E.g.: 3312345678
last_4_digits	The last 4 digits of the credit card number used in the transaction.	String E.g.: 6908
first_4_digits	The first 4 digits of the credit card number used in the transaction.	String E.g.: 5387

card_brand	The card brand of the credit card used in the transaction.	String E.g.: MasterCard
datetime	Date/Time of the transaction This value is returned in case of rejected or approved transactions	String dd-mm-yyyy hh:mm:ss 25-04-2016 12:25:26 PM
shipping_address	Shipping address of the customer	String 64 characters E.g.: <i>Flat abc road 123</i>
shipping_city	Shipping City of the customer	String 32 characters E.g.: <i>Manama</i>
shipping_country	Shipping country of the customer	String 3 character ISO country code E.g.: <i>BHR</i>
shipping_state	Shipping State of the customer	String 32 characters E.g.: <i>Manama</i>
shipping_postalcode	Shipping postal code of the customer	String Up to 9 characters E.g.: <i>403129</i>
amount	The transaction amount.	String Up to 3 Decimal places E.g.: 123.399
currency	The currency of the amount stated. 3 character ISO currency code	String E.g.: BHD
detail	The string representation for the result, whether the transaction has succeeded or failed and the reason why your transaction failed.	String E.g.: <i>Payment is completed.</i>
force_accept_datetime	Optional Date/Time of when the transaction is force accepted. This value is returned instead of "DateTime" value for transactions when they are force accepted only	String dd-mm-yyyy hh:mm:ss 25-04-2016 12:25:26 PM
refund_req_amount	Optional The refunded amount for an	String Up to 3 Decimal places

	approved refund request. This value is returned once a refund request for a transaction is approved	E.g.: 123.399
secure_sign	A secure sign key in order for the merchant to validate if the payment is returning from PayTabs This value is returned in case of force accepted or rejected transactions only	Alphanumeric E.g.:1f074e6f8b61d4f0af3042ce118e82535f8cb447
transaction_response_code	The same as response_code value returned in the response of verify_payment API call. A complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes	String Up to 4 characters E.g.: 100, 481
refund_request_id	PayTabs Refund request ID	String E.g.: 12345
refund_reason	Reason for request by merchant	String Eg : Test Refund

5.5 Response Codes

<i>Response Code</i>	<i>Description</i>
100	Payment has been accepted successfully
481 or 482	Transaction rejected by fraud monitoring tools. These transactions can be force accepted upon merchant's request
5002	Payment has been forcefully accepted
5003	Payment has been refunded
5004	Your refund request has been rejected

5.6 Sample IPN Response

5.6.1 IPN sample response for successful SDK transactions

Array

```
(
    [transaction_id] => 263079
    [order_id] => 1234567
    [response_code] => 100
    [customer_name] => John Doe
```

```

[customer_email] => John@gmail.com
[transaction_amount] => 1.00
[transaction_currency] => USD
[customer_phone] => 009733
[last_4_digits] => 1111
[first_4_digits] => 4111
[card_brand] => Visa
[datetime] => 06-04-2017 04:21:19 PM
[shipping_address] => Flat 1,Building 123, Road 2345
[shipping_city] => Juffair
[shipping_country] => BHR
[shipping_state] => Manama
[shipping_postalcode] => 00973
[amount] => 1.00
[currency] => USD
[detail] => Transaction has been Successful
[transaction_response_code] =>100
[secure_sign] => 7ec0ac0890acbe33139efe989d32e97e061f93f4
)

```

5.6.2 IPN sample response for rejected SDK transactions

Array

```

(
    [transaction_id] => 263079
    [order_id] => 1234567
    [response_code] => 202
    [customer_name] => John Doe
    [customer_email] => John@gmail.com
    [transaction_amount] => 1.00
    [transaction_currency] => USD
    [customer_phone] => 009733
    [last_4_digits] => 1111
    [first_4_digits] => 4111
    [card_brand] => Visa
    [datetime] => 06-04-2017 04:21:19 PM
    [shipping_address] => Flat 1,Building 123, Road 2345
    [shipping_city] => Juffair
    [shipping_country] => BHR
    [shipping_state] => Manama
    [shipping_postalcode] => 00973
    [amount] => 1.00
    [currency] => USD
    [detail] => An expired card has been used in this transaction
    [transaction_response_code] =>202
    [secure_sign] => 7ec0ac0890acbe33139efe989d32e97e061f93f4
)

```

5.6.3 IPN sample response for rejected SDK transactions by fraud monitoring

Array

```
(
    [transaction_id] => 263079
    [order_id] => 1234567
    [response_code] => 481
    [customer_name] => John Doe
    [customer_email] => John@gmail.com
    [transaction_amount] => 1.00
    [transaction_currency] => USD
    [customer_phone] => 009733
    [last_4_digits] => 1111
    [first_4_digits] => 4111
    [card_brand] => Visa
    [datetime] => 06-04-2017 04:21:19 PM
    [shipping_address] => Flat 1, Building 123, Road 2345
    [shipping_city] => Juffair
    [shipping_country] => BHR
    [shipping_state] => Manama
    [shipping_postalcode] => 00973
    [amount] => 1.00
    [currency] => USD
    [detail] => This transaction may be suspicious, your bank holds for further
confirmation. Payment Provider has rejected this transaction due to suspicious
activity; your bank will reverse the dedicated amount to your card as per their
policy.
    [transaction_response_code] =>481
    [secure_sign] => 7ec0ac0890acbe33139efe989d32e97e061f93f4
)
```

5.6.4 IPN sample response for force accepted SDK transactions

Array

```
(
    [transaction_id] => 263076
    [order_id] => 25
    [response_code] => 5002
    [customer_name] => John Doe
    [customer_email] => john@email.com
    [transaction_amount] => 1.00
    [transaction_currency] => USD
    [customer_phone] => 973 123456
    [last_4_digits] => 1111
    [first_4_digits] => 4111
    [card_brand] => Visa
    [secure_sign] => 7ec0ac0890acbe33139efe989d32e97e061f93f4
    [force_accept_datetime] => 06-04-2017 12:01:40 PM
    [transaction_response_code] =>5002
)
```


5.6.5 IPN sample response for refunded SDK transactions

Array

```
(
    [refund_request_id] => 21741
    [refund reason] => test
    [transaction_id] => 263076
    [order_id] => 25
    [response_code] => 5003
    [customer_name] => John Doe
    [customer_email] => john@email.com
    [transaction_amount] => 100.00
    [transaction_currency] => USD
    [customer_phone] => 973 123456
    [last_4_digits] => 1111
    [first_4_digits] => 4111
    [card_brand] => Visa
    [secure_sign] => 7ec0ac0890acbe33139efe989d32e97e061f93f4
    [refund_req_amount] => 50
    [transaction_response_code] => 5003
)
```

6 Refund Transactions

This method enables you to submit the refund requests using the below API function. Refund requests will be processed in around 24 hours and if you are using IPN service the IPN will post a response once the refund request is approved or rejected. Partial refunds are available. You can submit a single refund request for the whole amount of Multiple Partial refunds for the same transactions. However, if your refund for a certain transaction is still pending for approval, you can't submit a second refund request for the same transaction. All refund requests submitted using the API is also available at the Merchant Dashboard.

Note: This feature is also available from Merchant Dashboard > Bank Account > Refunds

Note: This API can be used by Active accounts only; it's not available for Demo merchants

PATH	https://www.paytabs.com/apiv2/refund_process
REQUEST METHOD	POST
PRODUCTION	LIVE

6.1 Request

<i>Element</i>	<i>Description</i>	<i>Format</i>
----------------	--------------------	---------------

merchant_email	<u>Required</u> Merchant email that you use to sign up and/or login into PayTabs Merchant Dashboard	String Up to 128 characters E.g.: <i>foof@foo.com</i>
secret_key	<u>Required</u> SECRET Key can be found at merchant dashboard	String Up to 128 characters E.g.: <i>Mao8sdhasfyahosdap9sd</i>
transaction_id	<u>Optional</u> The transaction id of the successful payment that you wish to refund This is the pt_transaction_id that is returned in the SDK response of the payment.	String Up to 12 characters E.g.: <i>130017</i>
order_id	<u>Optional</u> The order id of the payment from your system You can either use this or use the transaction_id	String Up to 32 characters E.g.: <i>4578</i>
refund_amount	<u>Required</u> The amount you wish to refund, it can either be partial amount or full amount	Up to 3 Decimal places E.g.: <i>134.999</i>
refund_reason	<u>Required</u> The reason for refunding the transaction	String Up to 256 Characters

6.2 Response

<i>Element</i>	<i>Description</i>	<i>Format</i>
result	The string representation for result, whether transaction has succeeded or failed and the reason why your transaction failed.	String E.g.: <i>Payment is completed.</i>
response_code	The response code / error code of the API call. Complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes	String Up to 4 characters E.g.: <i>4002</i>

6.3 Response Codes

Error Code	Description
4001	Missing parameters
4002	Invalid Credentials
810	You already requested Refund for this Transaction ID
811	Refund amount you requested is greater than transaction amount
812	Refund request is sent to Operation for Approval. You can track the Status on Merchant Dashboard
813	You are not authorized to view this transaction
814	Refund request is processed.

7. Transactions Reports

This API call will post all transactions that have taken place within the specified time interval to a URL.

Before calling this API, you will need to set the listener URL for the reports. Login to your merchant dashboard and edit your profile. Set up your IPN Listener

1. Create an IPN Listener that receives and processes the IPN messages sent by PayTabs.
2. Log into your PayTabs Merchant Account > Go to “My Profile” and click on “Edit”.
3. Enter the URL of your IPN Listener In the ‘IPN Listener for Transactions Reports’ and click on “Submit”. IPN will not work with a local host IPN Listener URL. Testing the IPN Message Service is only possible on a publicly hosted URL.

IPN Listener URL

IPN Listener URL for Transactions Reports

Payment Timeout (Seconds) ☒ No Timeout

Once you call the transaction_reports API, all the transactions will be posted to the listener URL and the response will contain the number of transactions that will be posted.

PATH https://www.paytabs.com/expressv2/transaction_reports

REQUEST METHOD POST

PRODUCTION LIVE

7.1 Request

<i>Element</i>	<i>Description</i>	<i>Format</i>
merchant_id	<u>Required</u> Merchant id as in merchant dashboard	String E.g.: 10011626
secret_key	<u>Required</u> Secret Key is generated from merchant Dashboard.	String E.g.: <i>Mao8sdhasfyahosdap9sd</i>
startdate	<u>Required</u> Start Date Format should be yyyy-mm-dd	String E.g.: 2018-10-03
enddate	<u>Required</u> End Date Format should be yyyy-mm-dd	String E.g.: <i>2018-10-10</i>

7.2 Response

<i>Element</i>	<i>Description</i>	<i>Format</i>
response_code	The response code of the API call	String E.g.: 4001, 4090, 4091
transaction_count	The total number of transactions.	String E.g.: 23
details	The details of all the retrieved transactions	String Details of the transaction
status	Payment Status String	String E.g.: Approved/ Rejected Refunded / Force Accepted
response_code	Payment Result Response Code 100 for successful/	String E.g.: 475

	refunded payment 481: DM declined/ Force Accepted Payment other: Rejected	
transaction_id	PayTabs Transaction ID	String E.g.: 12345
order_id	Merchant's Website order ID	String E.g.: 1234
auth_code	Authorization Code	String E.g.: AhjzbwSR8VsHlol4QVCEcgSegdUxd
transaction_title	Title of the transaction	String Eg : new transaction
amount	Transaction Amount	String E.g.: 199.287
currency	Transaction Currency	String 3 Character ISO country Code E.g.: AED
net_amount	The equivalent of the original amount converted to merchant dashboard Currency	String E.g.: 199.287
net_amount_currency	Merchant Dashboard Currency	String 3 Character ISO country Code E.g.: AED
net_amount_credited	Net Amount Credit to Merchant's Balance after deducting PayTabs fees	String E.g.: 199.287

net_amount_credited_currency	Merchant Dashboard Currency	String 3 Character ISO country Code E.g.: AED
transaction_datetime	Date and time of the transaction	String E.g.: 23-03-2016 01:39:16 pm
force_accept_datetime	Date and time of force accept (If applicable)	String E.g.: 23-03-2016 01:39:16 am

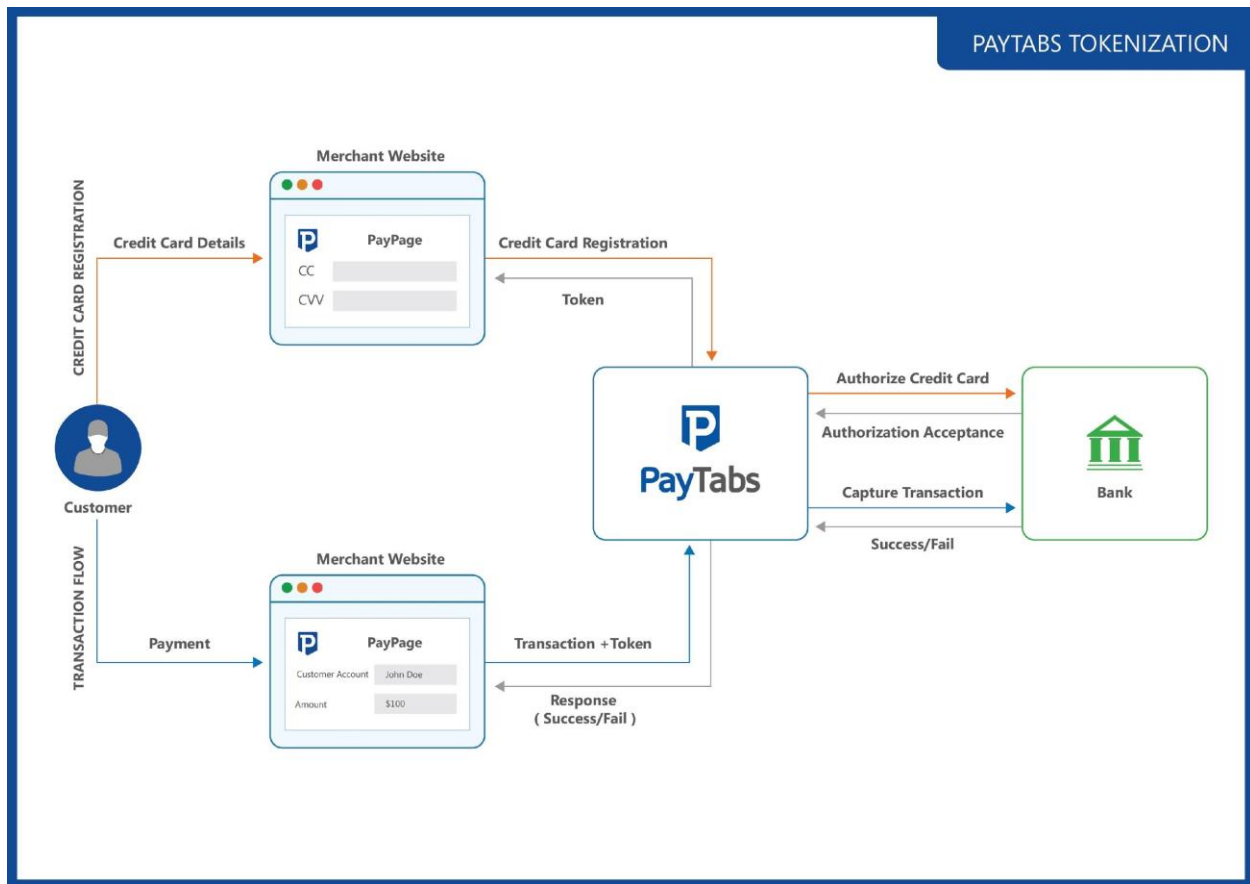
7.3 Error Codes

Error Code	Description
4001	Missing parameters
4002	Invalid Credentials
4090	Data Found
4091	No Data

8 Tokenization in SDK

The Tokenization feature gives you the option to create tokenization profiles to save credit card information for returning customers to your website.

Please Note: Tokenization feature is not available for merchants registered or operating in the Kingdom of Saudi Arabia.



In order to use tokenization in the SDK, you will need to pass additional parameters in the method. This will result in the creation of a normal Payment request, where the customer has to perform and authorize the first payment and receive the token for the credit card details that he has entered.

The following parameters have to be added to the creation of payment request in order to create a token for the customer.

<i>Element</i>	<i>Description</i>	<i>Format</i>
andIsTokenization	<u>Required</u> Set this value as true if you wish to create token for customer	Bool either TRUE or FALSE

8.1 Sample Code

To create a new token

```
andIsTokenization: self.launcherView.tokenizationSwitch.isOn
```

To use existing token which have been previously created, use the Rest API, *prepare_transaction*

(refer API documentation).

9 Process Payment with Existing Token

This method uses an existing token for a returning customer to process payment. You will need to pass the details (token, customer email and customer password) of the token that you previously created in order to perform a transaction.

PATH `https://www.paytabs.com/apiv3/tokenized_transaction_prepare`

REQUEST METHOD POST

PRODUCTION LIVE

9.1 Request

You need to pass all the parameters as stated below:

<i>Element</i>	<i>Description</i>	<i>Format</i>
merchant_email	<u>Required</u> Merchant email id used to login into PayTabs Merchant	String E.g.: testing@test.com
secret_key	<u>Required</u> SECRET Key generated by merchant dashboard	String E.g.: <i>Mao8sdhasfyahosdap9sd</i>
title	<u>Required</u> Description or title of the transaction done by the customer	String 32 characters E.g.: <i>Order # 3321</i>
cc_first_name	<u>Required</u> First Name of the Customer	String 32 characters E.g.: <i>John</i>
cc_last_name	<u>Required</u> Last Name of the Customer	String 32 characters E.g.: <i>Doe</i>
order_id	<u>Required</u> Merchant's Website order ID, this is same as the reference_no value	String 32 characters E.g.: <i>Dx2365</i>
product_name	<u>Required</u> Product title of the product.	String 256 characters E.g.: <i>SamsungS5</i>
customer_email	<u>Required</u> Email of the customer	String 32 characters E.g.: <i>customer@domain.com</i>
phone_number	<u>Required</u> Phone Number of the Customer	String 32 characters E.g.: <i>3312345678</i>

amount	<u>Required</u> Amount of the products and other charges, it should be equal to: amount = (sum of all products' (unit_price * quantity)) + other_charges This field will be displayed in the invoice as the sub total field	Float Up to 3 Decimal places E.g.: 123.399
currency	<u>Required</u> Currency of the amount stated. 3 character ISO currency code	String E.g.: BHD
address_billing	<u>Required</u> Complete Address of the customer. Multiple address lines will be merged into one single line.	String 64 characters E.g.: Flat 11 Building 222 Block 333 Road 444 Manama Bahrain
state_billing ***	<u>Required</u> Billing State (part of the address) entered by the customer	String 32 characters E.g.: Manama
city_billing	<u>Required</u> Name of the billing city selected by customer	String 32 characters E.g.: Manama
postal_code_billing	<u>Required</u> Billing Postal code provided by the customer	String Up to 9 characters E.g.: 12345
country_billing	<u>Required</u> Country of the customer	String 3 character ISO country code E.g.: BHR
address_shipping **	<u>Required</u> Shipping address of the customer	String 64 characters E.g.: Flat abc road 123
city_shipping	<u>Required</u> Shipping City of the customer	String 32 characters E.g.: Manama
state_shipping ***	<u>Required</u> Shipping State of the customer	String 32 characters E.g.: Manama
postal_code_shipping	<u>Required</u> Shipping postal code of the customer	String Up to 9 characters E.g.: 403129

country_shipping	<u>Required</u> Shipping country of the customer	String 3 character ISO country code E.g.: <i>BHR</i>
pt_token	<u>Required</u> This pt_token is received in the API post response after completing the payment; it will be redirected to return_url. While returning back to that URL, it will send a POST request	String E.g.: R7ANsPK1q91fv5Q0bmQ3
pt_customer_email	<u>Required</u> The customer email linked to the tokenization profile used, by default when the profile is created at the first successful payment, it will use customer_email value sent in the API to link it to the token	String E.g.: <i>customer@domain.com</i>
pt_customer_password	<u>Required</u> This pt_customer_password is received in the API post response after completing the payment; it will be redirected to return_url. While returning back to that URL, it will send a POST request to that page.	String E.g.: 1q91fv5Q0b

* The API requires that the requesting website be exactly the same as the website/URL associated with your PayTabs Merchant Account. The merchant can see this SITE URL on his dashboard, under “My Profile”

For Demo Users:

You can edit your site URL by clicking going to “My Profile” and clicking on edit, enter your correct site URL and click on Save.

For Live Merchants:

You can use the website that you have submitted in the Go-Live application. If you need to edit/change the site URL, you can send a request to customercare@paytabs.com

9.2 Response

<i>Element</i>	<i>Description</i>	<i>Format</i>
result	The string representation for result, whether transaction has succeeded or failed and the reason why your transaction failed.	String E.g.: <i>Approved</i>
response_code	The response code / error code of the API call. Complete list of response codes can be found in Merchant Dashboard > Help > Reason Codes	String Up to 4 characters E.g.: <i>4002</i>
transaction_id	Transaction id of the token transaction.	String Up to 12 characters E.g.: <i>90094</i>

9.3 Response Codes

<i>Code</i>	<i>Description</i>
4001	Missing parameters
4002	Invalid Credentials
0404	You don't have permissions
4015	Invalid tokenization Credentials
4091	There are no transactions available.
100	Payment is completed.
481 482	This transaction may be suspicious. If this transaction is genuine, please contact PayTabs customer service to enquire about the feasibility of processing this transaction.
Any response code other than 100, 481, 482	Any other response than 100, 482, 481 means that the transaction has been rejected and the rejection reason is the description of the corresponding response code

10 Test Credit Card Numbers

To test your payment process, you can typically use any valid credit card number or you can use the ones listed below.

Please do not use test cards in a live environment. This will cause your transactions to be rejected.

Card Number	Card Type	Description	CVV	Expiry Date
4111111111111111	VISA	Without authentication window	123	12/22
4000000000000002	VISA	With authentication window (3D secure)	123	12/22
4000000000000127	VISA	Card enrollment option during purchase process	123	12/22
5200000000000007	MasterCard	With authentication window (3D secure)	123	12/22
5200000000000114	MasterCard	Without authentication window	123	12/22
5200000000000122	MasterCard	Card enrollment option during purchase process	123	12/22

11 Screenshots of the application

11.1 PayTabs Mobile Payment Page

- The customer will be redirected to PayTabs payment page to enter the card details which will show as follows.

- The payment page will display the Logo you submitted at your PayTabs Merchant Account on the top left of the page and the Store Name submitted at your PayTabs Merchant Account on the top right.
- The required card information will be:
 - Card Number
 - Card Holder Name
 - Expiration Date (mm/yy)
 - CVV (Card Verification Code)

No SIM 12:41 PM

← Make Payment

Amount: 1.000 USD

Name on card

16 digit card number

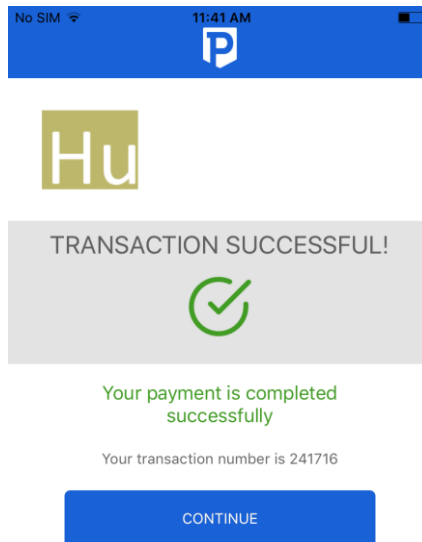
MM YY CVV

* All fields are required.

PAY NOW

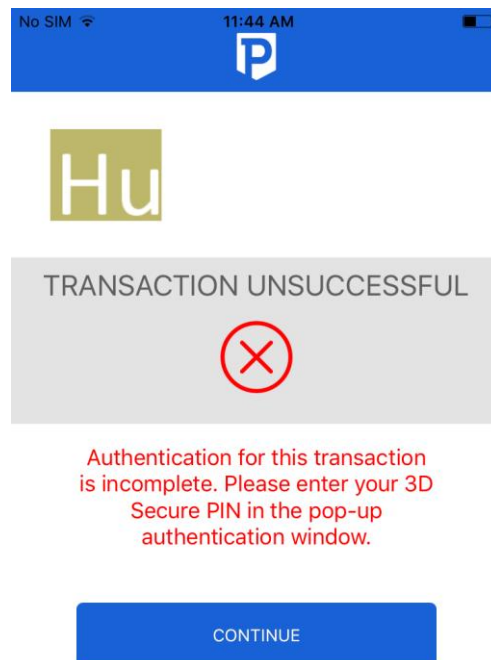
11.2 Successful Payment Result Page

- Once the customer submits the card information to process the payment, if the payment is successful, the customer will be redirected to the Successful result page that will return the successful transaction ID to the customer.



11.3 Unsuccessful Payment Result Page

- Once the customer submits the card information to process the payment, if the payment is unsuccessful, the customer will be redirected to the Unsuccessful result page .



12 Frequently Asked Questions

Q1. PayTabs iOS SDK is not working on actual iOS devices lesser than iPhone 5S!

Our SDK supports armv7, armv7s and arm 64.

Q2. How do I get the response code from the iOS SDK?

To view transaction_id and response codes please add the following code in your application.

```
NSLog(@"transaction Id %@", [[NSUserDefaults standardUserDefaults]
objectForKey:@"pt_transaction_id"]);
```

```
NSLog(@"Response Code %@", [[NSUserDefaults standardUserDefaults]
objectForKey:@"pt_response_code"]);
NSLog(@"Description %@", [[NSUserDefaults standardUserDefaults] objectForKey:@"pt_description"]);
```

The possible values for the response code variable are as follows:

Error Code	Description
100	Payment is completed Successfully.
481	<p>This transaction may be suspicious, your bank holds for further confirmation. Payment Provider has rejected this transaction due to suspicious activity; Your bank will reverse the dedicated amount to your card as per their policy.</p> <p>Important Note: These transactions are rejected by our fraud monitoring tools; however the transactions are only authorized (Not settled). In case you verify the transaction is genuine you can contact us to force accept the transaction after checking if it is not fraud and we might ask verification documents like ID card and front side of credit card used showing only name and last 4 digits, otherwise the transaction amount will be released back to the cardholder according to the issuing bank policy. In case you are using IPN, it will post the response once the transaction is force Accepted from our side</p>
Any other response code	Any other response means that the transaction has been rejected and the rejection reason is the description of the corresponding response code
**	The Complete list of response codes and their description can be found in Merchant Dashboard > Help > Reason Codes

Q3. Is the IOS SDK compatible with Swift?

We have an SDK specifically for Swift.

Q4. Can I use the iOS SDK in my hybrid framework like Cordova, Sencha, Titanium, Ionic?

Unfortunately, our iOS SDK does not support hybrid frameworks.

Q5. Does your iOS SDK work on simulators?

No, it does not. You can test your SDK integration on actual devices only.

Q6. How can I get the product names from Verify Payment API & IPN response from SDK?

The product names can be stored in your database against your own invoice id/reference id/order Id. Once the payment is made, we will send the same id back to your server in the verify_payment / IPN response. You can then compare the IDs and retrieve the product names from your own database.

Q7. May I know from which iOS version it will work?

The SDK is compatible with iOS version 8,9,10.

Q8. How can I remove the default card details/entries in the iOS SDK?

You can remove the default card details by replacing the files as given below to remove the default entries

PayTabsViewController_iPhone.xib

PayTabsViewControllerWideScreen.xib

Q9. Why is the design of the 3DS page not centralized on the screen?

This screen is coming directly from the bank. So the control over this page is very limited. We have added a scroll bar so that users will be able to scroll the page.

Q10. During payment, the app waits on a page for a long time before proceeding to the next step. Can we add a loading image here?

The loader has been added to the LIVE library only due to some restrictions in the test environment. So once you are LIVE you will be able to see the loader.

Q11. While testing on test account, some credit card transactions seem to have an issue... the loader keeps on loading. How can we fix this?

On test environment, we have some limitations on amounts such as 6, 60, 66 etc. Kindly attempt different amounts that do not contain the digit "6".

Q12. How can we test refund transactions in both Android and iOS. Is there any way to test with one test card?

Refund requests cannot be submitted for demo transactions. You will need to refund request for a LIVE transaction but kindly limit the same to 1 or 2 transactions.



PayTabs iOS SDK – Version 3.0

<https://www.paytabs.com>