PayPal™

Name-Value Pair API Developer Guide and Reference

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PayPal Name-Value Pair API Developer Guide and Reference

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Contents

Preface

This Document

The *PayPal Name-Value Pair API Developer Guide and Reference* describes the PayPal Name-Value Pair API.

Intended Audience

The *PayPal Name-Value Pair API Developer Guide and Reference* is written for web developers who are implementing solutions using the Name-Value Pair API.

Revision History

Revision history for *PayPal Name-Value Pair API Developer Guide and Reference.*

TABLE P.1 Revision History

Date	Description
April 2008	Added Fraud Management Filters information. Changed recurring payments information.
February 2008	Added that ther `VERSION` parameter must be **50.0** in the API call to use recurring payments.
January 2008	• Added billing agreement fields to SetExpressCheckout for recurring payments • Updated CreateRecurringPaymentsProfile for new recurring payments features. • Added new recurring payments APIs • Added DoNonReferencedCredit API
September 2007	• Update eBay auctions for Express Checkout section • Added fields for the giropay payment method to Express Checkout APIs • Added Direct Payment error 10571.
August 2007	Added recurring payments concepts, modified `SetExpressCheckout`, `DoExpressCheckoutPayment`, `DoReferenceTransaction`, and added additional `DoReferenceTransaction` error codes.

TABLE* *P.1* *Revision History

Date	Description
April 2007	Added Recurring Payments APIs: `SetCustomerBillingAgreement`, `GetBillingAgreementCustomerDetails`, and `CreateRecurringPaymentsProfile`.
February 2007	Bug fixes including updating Line Item Details for Direct Payment and Express Checkout APIs, changing some parameters to optional in `DoDirectPayment`, adding `SHIPTOCOUNTRYCODE`, and adding Switch/Solo codes for AVS and CVV2.
December 2006	Updates for bug fixes.
October 2006	First public release.

1 **Overview**

This chapter describes the PayPal Name-Value Pair (NVP) API at a high level and contains the following sections:

- Introducing the PayPal NVP API
- Basic Steps
- Taking Your Application Live
- Technical Details

Introducing the PayPal NVP API

The PayPal NVP API is a simple programmatic interface that allows you, the merchant, to access PayPal's business functionality to:

- Accept PayPal in checkout on your website using Express Checkout.
- Charge a credit card using Direct Payment.
- Capture payments previously authorized through Express Checkout, Direct Payment, or Website Payments Standard.
- Reauthorize or void previous authorizations.
- Pay one or more recipients using Mass Payment.
- Issue full refunds or multiple partial refunds.
- Search transactions using a start date or other criteria.
- View details of a specific transaction.

The PayPal NVP API makes it easy to add PayPal to your web application. You construct an NVP string and post it to the PayPal server using HTTPS. PayPal posts back a reponse in NVP format.

Integrating with the PayPal API

You can develop with the PayPal NVP API using two different approaches:

Integrate Directly

You can integrate directly with the PayPal NVP API using the programming language of your choice. This is the most straightforward and flexible approach. You can download web samples that show how to integrate directly using Classic ASP, PHP, and ColdFusion.

For more information, see Appendix C, "NVP API Web Samples."

Integrate Using an SDK

You can integrate with the NVP API using a software development kit (SDK). SDKs are provided for Java and ASP.NET. The SDKs provide simple functions for integrating with the NVP API.

For details about the PayPal NVP SDK, see Appendix D, "The Java SDK" or Appendix E, "The ASP.NET SDK."

Samples

To help you get started with the PayPal NVP API, samples are provided at https://www.paypal.com/IntegrationCenter/ic_nvp.html. Using the samples, you can send API calls to the PayPal Sandbox test environment.

Basic Steps

This section describes the basic steps for programming with the PayPal NVP API.

During application development, your application communicates with the PayPal Sandbox test environment. The following section, "Taking Your Application Live" on page 13, describes how to move your application to the live PayPal environment.

NOTE: The simplest way to get started is to download and try out the sample applications as described in "Integrating with the PayPal API" on page 11.

Create a Web Application

Your NVP API implementation usually runs in a web application. You can write your own application or use one of the samples as a starting point.

Get API Credentials

To access the PayPal API, you need API credentials, either an API signature or API certificate, that identify you.

Use the following sample API signature and password in your sample programs that run in the PayPal Sandbox test environment.

NOTE: If you are using the samples, this signature is already in the code.

TABLE 1.1 Details of the Sample API Signature

API username	`sdk-three_api1.sdk.com`
API password	`QFZCWN5HZM8VBG7Q`
API signature	`A-IzJhZZjhg29XQ2qnhapuwxIDzyAZQ92FRP5dqBzVesOkzbdUONzmOU`

Create and Post the Request

Create an NVP request string and post it to PayPal sandbox server. Add code to your web application to do the following tasks:

1. URL-encode the name and value parameters in the request to ensure correct transmission of all characters. This is described in "URL-Encoding" on page 14.

2. Construct the NVP API request string as described in "Request Format" on page 15. The NVP format is described in "NVP Format" on page 14.

3. Post the NVP request to the PayPal Sandbox as described in "Posting Using HTTPS" on page 18.

Interpret the Response

PayPal processes your request and posts back a reponse in NVP format. Add code to your web application to do the following tasks:

1. Receive the HTTP post response, and extract the NVP string.

2. URL-decode the parameter values as described in "URL-Encoding" on page 14.

3. Take appropriate action for successful and failed reponses.

Taking Your Application Live

After you have finished coding and testing your application, deploy your application to the live PayPal server using your PayPal business account and API credentials for that account.

Set Up a PayPal Business Account

When you are ready to deploy your application to the live PayPal server, create a PayPal business account on www.paypal.com.

Set Up API Credentials

To use the APIs, you need a set of credentials to identify yourself to PayPal. Create an API signature for your business account.

For instructions on setting up API credentials for the business account, go to https://www.paypal.com/IntegrationCenter/ic_certificate.html.

IMPORTANT: If you are using API signature, you must protect the API signature values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user that executes your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

NOTE: While API signature is recommended, you can also use API certificate.

Modify Your Code

In your application, change the following items from the PayPal Sandbox values to the live PayPal server values:

- The server address in the URL. (See "Posting Using HTTPS" on page 18.)
- API credentials you set up in "Set Up API Credentials" on page 13.

Technical Details

This section describes details of the technologies used by the PayPal NVP API.

Request-Response Model

When you use the PayPal NVP API, you post an NVP request to PayPal, and PayPal posts back an NVP response.

URL Format

The request and response are in URL-encoded format, which is defined by the Worldwide Web Consortium (W3C). URL is defined as part of the URI specification. Find out more about URI at http://www.w3.org/Addressing/.

NVP Format

NVP is a way of specifying names and values in a string. NVP is the informal name for the query in the URI specification. The NVP string is appended to the URL.

An NVP string conforms to the following guidelines:

- The name is separated from the value by an equal sign (=). For example:

  `FIRSTNAME=Robert`

- Name-value pairs are separated by an ampersand (&). For example:

  `FIRSTNAME=Robert&MIDDLENAME=Herbert&LASTNAME=Moore`

- The values for each field in an NVP string are URL-encoded.

URL-Encoding

The request and response are URL-encoded. URL-encoding ensures that you can transmit special characters, characters that are not allowed in a URL, and characters that have special meaning in a URL, such as the equal sign and ampersand. For example, the following NVP string:

```
NAME=Robert Moore&COMPANY=R. H. Moore & Associates
```

is URL-coded as follows:

```
NAME=Robert+Moore&COMPANY=R%2E+H%2E+Moore+%26+Associates
```

Use the following methods to URL-encode or URL-decode your NVP strings:

TABLE 1.2 URL-Encoding Methods

Language		Method
ASP.NET	Encode	`System.Web.HttpUtility.UrlEncode(buffer, Encoding.Default)`
	Decode	`System.Web.HttpUtility.UrlDecode(buffer, Encoding.Default)`
Classic ASP	Encode	`Server.URLEncode`
	Decode	No built-in function. Several implementation examples are available on the Internet.
Java	Encode	`java.net.URLEncoder.encode`
	Decode	`java.net.URLDecoder.decode`
PHP	Encode	`urlencode()`
	Decode	`urldecode()`
ColdFusion	Encode	`URLEncodedFormatstring [, charset ]`
	Decode	`URLDecodeurlEncodedString[, charset])`

Request Format

Each NVP request consists of required and optional parameters and their values. Parameter names are not case sensitive. The examples in this document use UPPERCASE for parameter names and divide the parameters into required security parameters and body parameters.

TABLE 1.3 General Format of a Request

Required Security Parameters	`USER=apiUsername&PWD=apiPassword&SIGNATURE=apiSignature` `&SUBJECT=optionalThirdPartyEmailAddress&VERSION=3.2` The following parameters are always required: `USER` `PWD` `VERSION` **NOTE:** The examples show the required security parameters like this: `[requiredSecurityParameters]`

***TABLE* 1.3 General Format of a Request**

Body Parameters	`&METHOD=methodName&otherRequiredAndOptionalParameters`

In practice, you need to concatenate all parameters and values into a single URL-encoded string. After the `METHOD` parameter, you can specify the parameters in any order.

Security Parameters

The security parameters are described below. These are your PayPal API credentials.

***TABLE* 1.4 Required Security Parameters: API Credentials**

Parameter		Value
`USER`	Required	Your PayPal API Username.
`PWD`	Required	Your PayPal API Password.
`VERSION=` *<current version>*	Required	Version number of the NVP API service, such as `51.0`.
`SIGNATURE`	Optional	Your PayPal API signature string. If you use an API certificate, do not include this parameter.
`SUBJECT`	Optional	Email address of a PayPal account that has granted you permission to make this call. Set this parameter only if you are calling an API on a different user's behalf.

IMPORTANT: You must protect the values for `USER`, `PWD`, and `SIGNATURE` in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user that executes your ecommerce application can access it.

The sample code does not store these values securely. The sample code should never be used in production.

You may see sample code where these values are stored in an HTML form. The following is an example of what you should NOT do in production:

```
<form method=post
action=https://api-3t.sandbox.paypal.com/nvp>
<!-- UNPROTECTED VALUES. DO NOT USE IN PRODUCTION! -->
<input type=hidden name=USER value=xxxxxx.paypal.com>
<input type=hidden name=PWD value=abcdefg>
<input type=hidden name=SIGNATURE value=xxxxxxxxxxxxxxx>
...
</form>
```

API Parameters

The request body must contain the name of the API method in the METHOD parameter. In addition, each method has required and optional parameters:

```
METHOD=methodName&requiredAndOptionalParameters
```

All API methods and their parameters are detailed in Appendix A, "NVP API Method and Field Reference." Examples of use are in Chapter 2, "Charging a Credit Card Using DoDirectPayment," Chapter 3, "Accepting PayPal in Express Checkout," and Chapter 6, "Back-Office Administration."Examples of use are in Chapter 3, "Accepting PayPal in Express Checkout."

Response Format

A response from the PayPal servers is a URL-encoded name-value pair string, just like the request, except it has the following general format.

TABLE 1.5 General Format of a Successful Response

Success Response Fields	`ACK=Success&TIMESTAMP=date/timeOfResponse` `&CORRELATIONID=debuggingToken&VERSION=3.200000` `&BUILD=buildNumber`	The examples show the successful response header fields like this: `[successResponseFields]`
API Response Fields	`&NAME1=value1&NAME2=value2&NAME3=value3&...`	

Each response includes the ACK field. If the ACK field's value is Success or SuccessWithWarning, you should process the API response fields. In a successful response, you can ignore all fields up to and including the BUILD field. The important fields begin after the BUILD field.

The possible successful response fields for each method are detailed in Appendix A, "NVP API Method and Field Reference." What you do with the fields depends on the particular API method you are calling, such as filling-in a FORM for your user, updating your database, and so on.

Error Responses

If the ACK value is Error or Warning, API response fields are not returned. An error response has the following general format.

TABLE 1.6 Format of an Error Response

Response Fields on Error	`ACK=Error&TIMESTAMP=date/timeOfResponse&` `CORRELATIONID=debuggingToken&VERSION=3.200000&` `BUILD=buildNumber&L_ERRORCODE0=errorCode&` `L_SHORTMESSAGE0=shortMessage&` `L_LONGMESSAGE0=longMessage&` `L_SEVERITYCODE0=severityCode`	Multiple errors can be returned. Each set of errors has a different numeric suffix, starting with 0 and incremented by one for each error.

For possible causes of errors and how to correct them, see the explanation of the specific error code, short message, and long message in Appendix B, "Error Message Reference."

ACK Parameter Values

The following table lists values for the ACK parameter.

TABLE 1.7 ACK Parameter Values

Type of Response	Value
Successful response	Success
	SuccessWithWarning
Error response	Failure
	FailureWithWarning
	Warning

Posting Using HTTPS

Your web application posts the URL-encoded NVP string over an HTTPS connection to one of the PayPal API servers. PayPal provides a live server and a Sandbox server that allows you to process transactions in a test environment.

API Servers for API Signature Security

If you use an API signature, post the request to one of these servers:

Sandbox: `https://api-3t.sandbox.paypal.com/nvp`

Live: `https://api-3t.paypal.com/nvp`

API Servers for API Certificate Security

If you use an API certificate, post the request to one of these servers:

Sandbox: `https://api.sandbox.paypal.com/nvp`

Live: `https://api.paypal.com/nvp`

2 Charging a Credit Card Using DoDirectPayment

Use `DoDirectPayment` to charge a credit card or to authorize a credit card for later capture. Always include the following parameters with `DoDirectPayment`:

- `PAYMENTACTION`
- `CREDITCARDTYPE`
- `ACCT`
- `EXPDATE`
- `CVV2`
- `IPADDRESS`
- `FIRSTNAME`
- `LASTNAME`

On success, the `DoDirectPayment` response returns the Address Verification System (AVS) code, a PayPal transaction ID, and the amount charged.

Final Sale

To charge a credit card for a final sale, include the `PAYMENTACTION=Sale` field.

TABLE* 2.1 *Charging a Credit Card for a Final Sale

Request	*[requiredSecurityParameters]*&**METHOD=DoDirectPayment**&CREDITCARDTYPE=VISA &ACCT=4683075410516684&EXPDATE=012007&CVV2=808&AMT=212.95 &FIRSTNAME=Designer&LASTNAME=Fotos&IPADDRESS=255.55.167.002 &STREET=1234+Easy+Street&CITY=San+Jose&STATE=CA&COUNTRY=United+States &ZIP=95110&COUNTRYCODE=US&**PAYMENTACTION=Sale**

***TABLE* 2.2**

Response	*[successResponseFields]*&AVSCODE=X&**TRANSACTIONID=9CX07910UV614511L**&AMT=212. 95

Authorizing a Payment

To authorize a credit card for later capture, include the `PAYMENTACTION=Authorization` field.

TABLE 2.3 Authorizing a Credit Card for Later Capture

Request	*[requiredSecurityParameters]*&METHOD=DoDirectPayment&CREDITCARDTYPE=VISA &ACCT=4683075410516684&EXPDATE=012007&CVV2=808&AMT=305.92 &FIRSTNAME=Designer&LASTNAME=Fotos&IPADDRESS=255.55.167.002 &STREET=1234+Easy+Street&CITY=San+Jose&STATE=CA&COUNTRY=United+States &ZIP=95110&COUNTRYCODE=US&**PAYMENTACTION=Authorization**

TABLE 2.4

Response	*[successResponseFields]*&AVSCODE=X&**TRANSACTIONID=4EL647650632203C**&AMT=305.92

To capture the payment, use DoCapture. For details, see "Capturing, Authorizing, Voiding, and Reauthorizing" on page 41.

Recording the Final Shipping Address

To record a ship-to address for this charge, include the following fields

- `SHIPTONAME`
- `SHIPTOSTREET`
- `SHIPTOSTREET2`
- `SHIPTOCITY`
- `SHIPTOCOUNTRYCODE`
- `SHIPTOPHONENUM`
- `SHIPTOZIP`

TABLE 2.5 Including a "Ship-To" Address

Request	*[requiredSecurityParameters]*&METHOD=DoDirectPayment&CREDITCARDTYPE=VISA &ACCT=4683075410516684&EXPDATE=012007&CVV2=808&AMT=212.95 &FIRSTNAME=Designer&LASTNAME=Fotos&IPADDRESS=255.55.167.002 &STREET=1234+Easy+Street&CITY=San+Jose&STATE=CA&COUNTRY=United+States &ZIP=95110&COUNTRYCODE=US&PAYMENTACTION=Sale &**SHIPTONAME=Louise+P.+Flowerchild&SHIPTOSTREET=1234+Easy+Street** &**SHIPTOSTREET2=Apt+22+bis&SHIPTOCITY=New+Orleans&SHIPTOSTATE=LA** &**SHIPTOCOUNTRYCODE=US&SHIPTOPHONENUM=504-555-1212&SHIPTOZIP=70114**

TABLE 2.6

Response	*[successResponseFields]*&AVSCODE=X&**TRANSACTIONID=0W099911J1541261D**&AMT=212.95

Including Subtotals of Item Cost, Shipping, Handling, and Tax

If you want the PayPal user to see subtotals of item cost, shipping charges, handling charges, and sales tax, include the following parameters:

- ITEMAMT
- SHIPPINGAMT
- HANDLINGAMT
- TAXAMT

NOTE: Be sure that the summed values of ITEMAMT, SHIPPINGAMT, HANDLINGAMT, and TAXAMT equal the value of AMT. You cannot include a zero amount for any of these fields, and you must set all of them.

TABLE 2.7 Including Subtotals

Request	*[requiredSecurityParameters]*&METHOD=DoDirectPayment&CREDITCARDTYPE=VISA&ACCT=4683075410516684&EXPDATE=012007&CVV2=808&**AMT=127.87**&FIRSTNAME=Designer&LASTNAME=Fotos&IPADDRESS=255.55.167.002&STREET=1234+Easy+Street&CITY=San+Jose&STATE=CA&COUNTRY=United+States&ZIP=95110&COUNTRYCODE=US&PAYMENTACTION=Sale**&ITEMAMT=115.00&SHIPPINGAMT=7.02&HANDLINGAMT=1.00&TAXAMT=4.85**

TABLE 2.8

Response	*[successResponseFields]*&AVSCODE=X&**TRANSACTIONID=79V13941UC416632T**&AMT=127.87

Adding Line Item Details

If you want the PayPal user to see details about the items purchased with the credit card, include these parameters:

- L_NAME*n*: item name or description
- L_NUMBER*n*: line item number
- L_QTY*n*: item quantity
- L_TAXAMT*n*: sales tax for the item
- L_AMT*n*: cost of item

You can detail as many items as you want. Beginning with 0, append an index number to the field name and increment that index number by one for each item.

***TABLE* 2.9** *Adding Line Item Detail*

Request	*[requiredSecurityParameters]*&METHOD=DoDirectPayment&CREDITCARDTYPE=VISA &ACCT=4683075410516684&EXPDATE=012007&CVV2=808&AMT=127.87 &FIRSTNAME=Designer&LASTNAME=Fotos&IPADDRESS=255.55.167.002 &STREET=1234+Easy+Street&CITY=San+Jose&STATE=CA&COUNTRY=United+States &ZIP=95110&COUNTRYCODE=US&PAYMENTACTION=Sale&**L_DESC0=Cat+Nibbles** **&L_NUMBER0=SKU+98099&L_QTY0=2&L_TAXAMT0=0.85&L_AMT0=8.00** **L_DESC1=+Flea+Collar&L_NUMBER1=2&L_QTY1=1&L_TAXAMT1=1.10&** **L_AMT1=17.00&ITEMAMT=37.00&TAXAMT=1.95**

***TABLE* 2.10**

Response	*[successResponseFields]*&AVSCODE=X&**TRANSACTIONID=3B288546P5019992D**&AMT=127. 87

If you specify L_AMT*n*, you must specify the ITEMAMT parameter. The values for L_AMT*n* and L_QTY*n* should add up to the ITEMAMT.

If you specify L_TAXAMT*n*, you must specify the TAXAMT parameter. The values for L_TAXAMT*n* and L_QTY*n* should add up to TAXAMT.

Here are examples of ITEMAMT and TAXAMT:

```
ITEMAMT = (L_AMT0 * L_QTY0) + (L_AMT1 * L_QTY1) + L_AMT2
TAXAMT = (L_TAXAMT0 * L_QTY0) + (L_TAXAMT1 * L_QTY1) + L_TAXAMT2
```

NOTE: If the line item details do not add up to ITEMAMT or TAXAMT, the line item details are discarded, and the transaction is processed using the values of ITEMAMT or TAXAMT. The ACK value in the response is set to SuccessWithWarning.

3 Accepting PayPal in Express Checkout

By choosing Express Checkout, the customer can save time by skipping several checkout steps using the billing and shipping information stored on PayPal.

This section describes how to use Express Checkout to accept payments using PayPal and contains the following topics:

Basic Checkout with PayPal

See the Express Checkout Integration Guide for details on Express Checkout including page flow, integration points, button placement, and page design.

Express Checkout with PayPal requires the following steps:

1. 1. Starting the Checkout Using SetExpressCheckout

2. 2. Redirecting the Customer's Browser to PayPal Login Page

3. 3. Getting Payer Details Using GetExpressCheckoutDetails

4. 4. Making a Sale Using DoExpressCheckoutPayment

In SetExpressCheckout response, you obtain a TOKEN that uniquely identifies this three-step transaction. You pass this TOKEN in the request to GetExpressCheckoutDetails and

DoExpressCheckoutPayment. **Both** GetExpressCheckoutDetails **and** DoExpressCheckoutPayment **return this** TOKEN **in the response.**

This example shows basic checkout using the minimum number of parameters.

1. Starting the Checkout Using SetExpressCheckout

The SetExpressCheckout request method notifies PayPal that you are using Express Checkout to obtain payment from your customer.

You must always include the following parameters in SetExpressCheckout request:

- AMT
- RETURNURL
- CANCELURL

TABLE 3.1 Starting the Checkout

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html
Response	*[successResponseFields]*&TOKEN=EC-3DJ78083ES565113B

NOTE: Because we do not specify a value for PAYMENTACTION, this parameter defaults to Sale.

Save TOKEN for use on the remaining Express Checkout calls.

2. Redirecting the Customer's Browser to PayPal Login Page

After you receive a successful response from SetExpressCheckout, add the TOKEN from SetExpressCheckout response as a name/value pair to the following URL, and redirect your customer's browser to it:

```
https://www.paypal.com/cgi-bin/webscr?cmd=_express-checkout&
token=value_from_SetExpressCheckoutResponse
```

For redirecting the customer's browser to the PayPal login page, PayPal recommends that you use the HTTPS response 302 "Object Moved" with the URL above as the value of the Location header in the HTTPS response. Ensure that you use an SSL-enabled server to prevent browser warnings about a mix of secure and insecure graphics.

3. Getting Payer Details Using GetExpressCheckoutDetails

The GetExpressCheckoutDetails method returns information about the customer, including name and address stored on PayPal.

You must always include the following parameters in `GetExpressCheckoutDetails`:

● `TOKEN`: use the value from `SetExpressCheckout` response

The response contains this `TOKEN` and customer details.

TABLE 3.2 Getting Payer Details

Request	*[requiredSecurityParameters]*&**METHOD=GetExpressCheckoutDetails&** `TOKEN=EC-3DJ78083ES565113B`

Response	*[successResponseFields]*`&TOKEN=EC-3DJ78083ES565113B&EMAIL=abcdef@anyemail.com&`
	`PAYERID=95HR9CM6D56Q2&PAYERSTATUS=verified&FIRSTNAME=John&`
	`LASTNAME=Smith&COUNTRYCODE=US&`
	`SHIPTONAME=John Smith&SHIPTOSTREET=144+Main+St.&`
	`SHIPTOCITY=San+Jose&SHIPTOSTATE=CA&SHIPTOCOUNTRYCODE=US&`
	`SHIPTOZIP=99221&ADDRESSID=PayPal&`
	`ADDRESSSTATUS=Confirmed`

Make sure `TOKEN` matches the value in SetExpressCheckout response.

Save `PAYERID` for use on the next call.

4. Making a Sale Using DoExpressCheckoutPayment

Request to obtain payment with PayPal Express Checkout using `DoExpressCheckoutPayment` request.

By default, you make a final sale with `DoExpressCheckoutPayment` request. You can also request authorization for later capture of payment. For more information, see

You must always include the following parameters in `DoExpressCheckoutPayment` request:

`TOKEN`: use the value from `GetExpressCheckoutDetails` response

`PAYERID`: use the value from `GetExpressCheckoutDetails` response

`PAYMENTACTION`: set to Sale. This is the default value in `SetExpressCheckout`.

`AMT`: use the same value as in `SetExpressCheckout` request

TABLE 3.3 Making a Sale

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment&** `TOKEN=EC-0E881823PA052770A&AMT=10.00&` `PAYERID=95HR9CM6D56Q2&`**PAYMENTACTION=Sale**

Response	*[successResponseFields]*&TOKEN=EC-0E881823PA052770A& TRANSACTIONID=8SC56973LM923823H&TRANSACTIONTYPE=expresscheckout& **PAYMENTTYPE=instant**&ORDERTIME=2006-08-22T20:16:05Z&AMT=10.00& CURRENCYCODE=USD&FEEAMT=0.59&TAXAMT=0.00& **PAYMENTSTATUS=Completed**&PENDINGREASON=None&REASONCODE=None

Controlling the Shipping Address Using SetExpressCheckout

You can make changes to the behavior of the shipping address with the REQCONFIRMSHIPPING, NOSHIPPING, and ADDROVERRIDE parameters in SetExpressCheckout request.

The shipping address is specified in the SHIPTO*xxx* parameters.

Requiring a Confirmed Address

To require that the shipping address be a PayPal confirmed address, set REQCONFIRMSHIPPING to 1 in SetExpressCheckout request.

NOTE: The value of REQCONFIRMSHIPPING overrides the setting in your Merchant Account Profile

TABLE 3.4 Requiring a Confirmed Address

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html **&REQCONFIRMSHIPPING=1**
Response	*[successResponseFields]*&TOKEN=EC-0E881823PA052770A

Suppressing Display of Shipping Address on PayPal

To suppress the display of the customer's shipping address on the PayPal web pages, set NOSHIPPING to 1 in SetExpressCheckout request. You might want to do this if you are selling a product or service that does not require shipping.

TABLE 3.5 Suppressing the Shipping Address

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html &**NOSHIPPING=1**

Response	*[successResponseFields]*&TOKEN=EC-17C76533PL706494P

GetExpressCheckoutDetails does not return the shipping address.

TABLE 3.6 GetExpressCheckoutDetails

Request	*[requiredSecurityParameters]*&**METHOD=GetExpressCheckoutDetails**& TOKEN=EC-17C76533PL706494P

Response	*[successResponseFields]*&TOKEN=EC- 17C76533PL706494P&EMAIL=abcdef@anycompany.com&PAYERID=95HR9CM6D56Q2& PAYERSTATUS=verified&FIRSTNAME=John&LASTNAME=Smith&COUNTRYCODE=US& ADDRESSID=PayPal&ADDRESSSTATUS=None

Overriding the Shipping Address Stored on PayPal

To override the shipping address stored on PayPal, call SetExpressCheckout to set ADDROVERRIDE to 1 and set the shipping address fields (see Table A.11, "Ship to Address (Optional)").

The customer cannot edit the address if it has been overridden.

TABLE 3.7 Overriding the Shipping Address

Request	*[requiredSecurityParameters]*&METHOD=**SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html &**SHIPTONAME=Peter+Smith**&**SHIPTOSTREET=144+Main+St.**&**SHIPTOCITY=SAN+JOSE** &**SHIPTOSTATE=CA**&**SHIPTOCOUNTRYCODE=US**&**SHIPTOZIP=99911**& **ADDROVERRIDE=1**

Response	*[successResponseFields]*&TOKEN=EC-17C76533PL706494P

GetExpressCheckoutDetails returns the overridden shipping address.

TABLE 3.8 GetExpressCheckoutDetails

Request	*[requiredSecurityParameters]*&METHOD=**GetExpressCheckoutDetails**&TOKEN=EC- 17C76533PL706494P

Response	*[successResponseFields]*&TOKEN=EC-17C76533PL706494P& PAYER=abcdef@anycompany.com&PAYERID=95HR9CM6D56Q2&PAYERSTATUS=verified& FIRSTNAME=John&LASTNAME=Smith& COUNTRYCODE=US&**SHIPTONAME=Peter+Smith**&**SHIPTOSTREET=144+Main+St.**& **SHIPTOCITY=SAN+JOSE**&**SHIPTOSTATE=CA**&**SHIPTOCOUNTRYCODE=US**&**SHIPTOZIP=95112**& ADDRESSID=PayPal&**ADDRESSSTATUS=Unconfirmed**

Changing the Language on the PayPal Login Page

To change the language displayed on the PayPal login page, set LOCALECODE to one of the allowable values in SetExpressCheckout. For LOCALECODE values, see Table A.10, "SetExpressCheckout Request Parameters". The following example sets LOCALECODE to French.

TABLE 3.9 Changing the PayPal Login Page Language to French

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& CURRENCYCODE=EUR& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html &**LOCALECODE=fr_FR**
Response	*[successResponseFields]*&TOKEN=EC-17C76533PL706494P

Changing the Logo on the PayPal Pages

You can modify the logo and other color settings on the PayPal pages in two ways:

- Specifying a predefined Custom Payment Page Style
- Setting logo and color settings individually

Specifying a Custom Payment Page Style

You can set the Custom Payment Page Style for the PayPal pages by setting the PAGESTYLE parameter in SetExpressCheckout. Set PAGESTYLE to one of the Page Style Names you defined in your Custom Payment Pages on https://www.paypal.com.

The following example sets PAGESTYLE to DesignerFotos-Yellow in the SetExpressCheckout method

TABLE 3.10 Specifying a Custom Payment Page Style

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html& **PAGESTYLE=DesignerFotos-Yellow**
Response	*[successResponseFields]*&TOKEN=EC-17C76533PL706494P

Specifying Logo and Color Settings Individually

You can modify the PayPal web pages to look like your own web pages by setting the following parameters in `SetExpressCheckout`:

- `HDRIMG`: specify an image to appear at the top left of the payment page
- `HDRBORDERCOLOR`: set the border color around the header of the payment page
- `HDRBACKCOLOR`: set the background color for the background of the header of the payment page
- `PAYFLOWCOLOR`: set the background color for the payment page

TABLE 3.11 Specifying Logo and Color Settings Individually

Request	[*requiredSecurityParameters*]&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html& **HDRIMG=https://www.anycompany.com/images/HeaderImage.gif**& **HDRBORDERCOLOR=3366FF**&**HDRBACKCOLOR=D3EFF5**&**PAYFLOWCOLOR=F8F5F5**
Response	[*successResponseFields*]&TOKEN=EC-17C76533PL706494P

Form-Filling Your Payment Review Page

Use the payer name and shipping address returned by `GetExpressCheckoutDetails` response to fill in form fields on your payment review page which you display after the customer returns from PayPal.

TABLE 3.12 Form-Filling Your Payment Review Page

Request	[*requiredSecurityParameters*]&**METHOD=GetExpressCheckoutDetails**& TOKEN=EC-3DJ78083ES565113B
Response	[*successResponseFields*]&TOKEN=EC-3DJ78083ES565113B&EMAIL=abcdef@anyemail.com& PAYERID=95HR9CM6D56Q2&PAYERSTATUS=verified&FIRSTNAME=John&LASTNAME=Smith& COUNTRYCODE=US&SHIPTONAME=John Smith&SHIPTOSTREET=144+Main+St.& SHIPTOCITY=San+Jose&SHIPTOSTATE=CA&SHIPTOCOUNTRYCODE=US&SHIPTOZIP=99221& ADDRESSID=PayPal&ADDRESSSTATUS=Confirmed

Get the payer name from the following parameters in `GetExpressCheckoutDetails` response:

- `SALUTATION`
- `FIRSTNAME`
- `MIDDLENAME`

- `LASTNAME`

- `SUFFIX`

Get the shipping address from the following parameters in `GetExpressCheckoutDetails` response:

- `SHIPTONAME`

- `SHIPTOSTREET`

- `SHIPTOSTREET2`

- `SHIPTOCITY`

- `SHIPTOSTATE`

- `SHIPTOCOUNTRYCODE`

- `SHIPTOPHONENUM`

- `SHIPTOZIP`

Making a Sale Using DoExpressCheckoutPayment

Use `DoExpressCheckoutPayment` to make a final sale.

For more information, see "Basic Checkout with PayPal" on page 23.

Authorizing for Single Capture

You can authorize payment for final sale by setting `PAYMENTACTION` to `Authorization` in `SetExpressCheckout` and `DoExpressCheckoutPayment`.

***TABLE 3.13** Authorizing for Single Capture in SetExpressCheckout*

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=10.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html& **PAYMENTACTION=Authorization**
Response	*[successResponseFields]*& TOKEN=EC-30P862430W113011F

***TABLE 3.14** Authorizing for Single Capture in DoExpressCheckoutPayment*

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-30P862430W113011F&PAYERID=95HR9CM6D56Q2&AMT=10.00 **PAYMENTACTION=Authorization**

Response	*[successResponseFields]*&TOKEN=EC-30P862430W113011F& TRANSACTIONID=4D479374VP578364Y&TRANSACTIONTYPE=expresscheckout& PAYMENTTYPE=instant&ORDERTIME=2006-08-22T22:02:42Z&AMT=10.00& CURRENCYCODE=USD&TAXAMT=0.00&**PAYMENTSTATUS=Pending**& **PENDINGREASON=authorization**&**REASONCODE=None**

Setting PAYMENTACTION to Order verifies that the customer account exists, but does not hold funds. To authorize the funds, you must additionally call the DoAuthorization API, specifying the amount of be authorized. In most cases, you call DoAuthorization directly after DoExpressCheckout in your payment flow in order to minimize the risk of capture declines.

Use the TRANSACTIONID from the DoExpressCheckoutPayment response as the value of TRANSACTIONID in the DoAuthorization request. Then use the AUTHORIZATIONID contained in the DoAuthorization response in the DoCapture request when capturing against the order. See "Making a Single Capture Using DoCapture" on page 41 for more information on Authorization and Capture.

Authorizing for Multiple Captures

You can authorize payment for multiple captures by setting PAYMENTACTION to Order in SetExpressCheckout and DoExpressCheckoutPayment.

***TABLE 3.15** Authorizing for Multiple Captures in SetExpressCheckout*

Request	*[requiredSecurityParameters]*&**METHOD=SetExpressCheckout**&AMT=1.00& RETURNURL=https://www.anycompany.com/orderprocessing/orderreview.html& CANCELURL=https://www.anycompany.com/orderprocessing/shippinginfo.html& **PAYMENTACTION=Order**

Response	*[successResponseFields]*&TOKEN=EC-8NB10343BA3562027

***TABLE 3.16** Authorizing for Multiple Captures in DoExpressCheckoutPayment*

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-8NB10343BA3562027&PAYERID=95HR9CM6D56Q2&AMT=1.00& **PAYMENTACTION=Order**

Response	*[successResponseFields]*&TOKEN=EC-8NB10343BA3562027& TRANSACTIONID=O-2YX05090CA6454418&TRANSACTIONTYPE=expresscheckout& **PAYMENTTYPE=None**&ORDERTIME=2006-08-22T22:22:03Z&AMT=1.00& CURRENCYCODE=USD&TAXAMT=0.00&P**AYMENTSTATUS=None**&**PENDINGREASON=order**& **REASONCODE=None**

Before making a capture against the order, you should first call DoAuthorization to authorize the amount of the tranaction. Use the TRANSACTIONID from

DoExpressCheckoutPayment and use it for the value of TRANSACTIONID in DoAuthorization request.If most cases, you should call DoAuthorization directly after DoExpressCheckout in your payment flow.

Use the AUTHORIZATIONID contained in the DoAuthorization response in the DoCapture request when capturing against the order. See "Making Multiple Partial Captures Using DoCapture" on page 42 for more information on Authorization and Capture.

For information about DoCapture, see "Capturing, Authorizing, Voiding, and Reauthorizing" on page 41.

Changing the URL for IPN

You can change the URL for receiving Instant Payment Notification (IPN) about this transaction by setting the NOTIFYURL parameter in DoExpressCheckoutPayment.

If you do not specify this value in the request, the notification URL from your Merchant Profile is used, if one exists.

For more information about IPN, see the Order Management Integration Guide.

TABLE 3.17 Changing the URL for IPN

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-8AX1275942659774U&PAYERID=95HR9CM6D56Q2&AMT=10.00& PAYMENTACTION=Sale&**NOTIFYURL=https://www.anycompany.com/process-ipn/**
Response	[*successResponseFields*]&TOKEN=EC-8AX1275942659774U& TRANSACTIONID=1MA55216691247718&TRANSACTIONTYPE=expresscheckout& PAYMENTTYPE=instant&ORDERTIME=2006-08-22T22:39:13Z&AMT=10.00& CURRENCYCODE=USD&FEEAMT=0.59&TAXAMT=0.00&PAYMENTSTATUS=Completed& PENDINGREASON=None&REASONCODE=None

Including Line Item Details Using DoExpressCheckoutPayment

You can include line item details by setting the following parameters in DoExpressCheckoutPayment:

- L_NAME*n*: item name or description
- L_NUMBER*n*: line item number
- L_QTY*n*: item quantity
- L_TAXAMT*n*: sales tax for the item
- L_AMT*n*: cost of item

You can detail as many items as you want. Beginning with 0, append an index number to the field name and increment that index number by one for each item.

The following example sets line item details for two items. These details are recorded on PayPal.

TABLE 3.18 Including Line Item Details

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-4XH62109C8044521N&PAYERID=95HR9CM6D56Q2&PAYMENTACTION=Sale&**AMT=6.24**& **ITEMAMT=5.75**&**TAXAMT=0.49**&**L_NUMBER0=1**&**L_NAME0=A+Tale+of+Two+Cities**&**L_AMT0=2.50**& **L_QTY0=1**&**L_TAXAMT0=0.21**&**L_NAME1=Oliver+Twist**&**L_NUMBER1=2**&**L_AMT1=3.25**&**L_QTY1=1**& **L_TAXAMT1=0.28**
Response	*[successResponseFields]*&TOKEN=EC-4XH62109C8044521N& TRANSACTIONID=77U91743M2649930P&TRANSACTIONTYPE=expresscheckout& PAYMENTTYPE=instant&ORDERTIME=2006-08-22T22:49:50Z&**AMT=6.24**& CURRENCYCODE=USD&FEEAMT=0.48&TAXAMT=0.28&PAYMENTSTATUS=Completed& PENDINGREASON=None&REASONCODE=None

If you specify L_AMTn, you must specify the ITEMAMT parameter. The values for L_AMTn and L_QTYn should add up to the ITEMAMT.

If you specify L_TAXAMTn, you must specify the TAXAMT parameter. The values for L_TAXAMTn and L_QTYn should add up to TAXAMT.

Here are examples of ITEMAMT and TAXAMT:

```
ITEMAMT = (L_AMT0 * L_QTY0) + (L_AMT1 * L_QTY1) + L_AMT2
TAXAMT = (L_TAXAMT0 * L_QTY0) + (L_TAXAMT1 * L_QTY1) + L_TAXAMT2
```

NOTE: If the line item details do not add up to ITEMAMT or TAXAMT, the line item details are discarded, and the transaction is processed using the values of ITEMAMT or TAXAMT. The ACK value in the response is set to SuccessWithWarning.

Including Subtotals Using DoExpressCheckoutPayment

If you want the PayPal user to see subtotals of item cost, shipping charges, handling charges, and sales tax, include the following parameters in DoExpressCheckoutPayment:

- ITEMAMT
- SHIPPINGAMT
- HANDLINGAMT
- TAXAMT

If you specify values for any of these subtotal amounts, the total of the values must equal the AMT field specified in the request. For example, in the example below, the sum of ITEMAMT, SHIPPINGAMT, HANDLINGAMT, and TAXAMT equals the value for AMT.

If one or more of the subtotals is zero, you can either include the field in the request with a value of zero, pass an empty string, or leave the field out of the request altogether. However, the sum of the remaining subtotal fields, if any are specified, must add up to AMT.

TABLE 3.19 Including Subtotals

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment** TOKEN=EC-0EU150885J108392M&PAYERID=95HR9CM6D56Q2&PAYMENTACTION=Sale& **AMT=192.22**&I**TEMAMT=176.02**&**SHIPPINGAMT=14.34**&**HANDLINGAMT=1.10**&**TAXAMT=0.76**
Response	*[successResponseFields]*&TOKEN=EC- 0EU150885J108392M&TRANSACTIONID=29W817045L6797418&TRANSACTIONTYPE=expresscheck out&PAYMENTTYPE=instant&ORDERTIME=2006-08- 23T16:20:22Z&**AMT=192.22**&CURRENCYCODE=USD&FEEAMT=5.87&**TAXAMT=0.76**&PAYMENTSTATUS =Completed&PENDINGREASON=None&REASONCODE=None

Updating Transaction Details With DoExpressCheckoutPayment

You may need to update transaction details on PayPal if the customer makes a change to the transaction after returning to your order review page. If the change causes new values for one or more of the following parameters, you need to update the transaction details on PayPal using DoExpressCheckoutPayment:

● DESC: item description

● CUSTOM: field for your own use

● INVNUM: your invoice or tracking number

These three parameters may have been set in SetExpressCheckout.

TABLE 3.20 Updating Order Details

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-5JA9268562132991T&PAYERID=95HR9CM6D56Q2&PAYMENTACTION=Sale&AMT=10.00& **DESC=Order+for+5+books**&**CUSTOM=Thank+you+for+your+business!**&**INVNUM=ABC1234567**
Response	*[successResponseFields]*&TOKEN=EC- 5JA9268562132991T&TRANSACTIONID=9JJ517146A732773R&TRANSACTIONTYPE=expresscheck out&PAYMENTTYPE=instant&ORDERTIME=2006-08- 23T16:14:54Z&AMT=10.00&CURRENCYCODE=USD&FEEAMT=0.59&TAXAMT=0.00&PAYMENTSTATUS= Completed&PENDINGREASON=None&REASONCODE=None

Updating Shipping Address With DoExpressCheckoutPayment

You may need to update the shipping address on PayPal if the customer updates the shipping address after returning to your order review page. If this happens, you need to update the shipping address for this transaction on PayPal.

You can update the shipping address by setting the following parameters in `DoExpressCheckoutPayment`:

- SHIPTONAME
- SHIPTOSTREET
- SHIPTOSTREET2
- SHIPTOCITY
- SHIPTOSTATE
- SHIPTOCOUNTRYCODE
- SHIPTOPHONENUM
- SHIPTOZIP

***TABLE 3.21** Updating the Shipping Address*

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& TOKEN=EC-47C20533CU265432F&PAYERID=95HR9CM6D56Q2&PAYMENTACTION=Sale&AMT=10.00& **SHIPTONAME=Michael+Brown**&**SHIPTOSTREET=22+First+Street**&**SHIPTOCITY=Chicago**& **SHIPTOCOUNTRYCODE=US**&**SHIPTOSTATE=IL**&**SHIPTOZIP=60605**
Response	*[successResponseFields]*&TOKEN=EC-47C20533CU265432F& TRANSACTIONID=59L39584YA765250B&TRANSACTIONTYPE=expresscheckout& PAYMENTTYPE=instant&ORDERTIME=2006-08-23T16:08:12Z&AMT=10.00& CURRENCYCODE=USD&FEEAMT=0.59&TAXAMT=0.00&PAYMENTSTATUS=Completed& PENDINGREASON=None&REASONCODE=None

Express Checkout for eBay Auctions

You can use also use Express Checkout to check out for eBay auctions. You can mix eBay and non-eBay transactions in the same transaction.

If the buyer's checkout includes eBay auctions, there are additional fields that you must set to control the behavior of Express Checkout.

In the `SetExpressCheckout` request:

- PAYMENTACTION must be Sale
- CHANNELTYPE must be eBayItem

> **NOTE:** For eBay auctions, you cannot set PAYMENTACTION to Authorization or Order. You must set PAYMENTACTION to Sale.

In the DoExpressCheckoutPayment request, you must set PAYMENTACTION to Sale. You must also provide line item details for each eBay auction so that the payment is properly reflected in My eBay.

> **NOTE:** You must provide line item details in order your buyer to be able to see the transaction on My eBay and to qualify for PayPal Buyer Protection.

For each line item, you must provide the following:

L_EBAYITEMNUMBER*n* and L_EBAYITEMAUCTIONTXNID*n*

or

L_EBAYITEMORDERID*n*

To properly reflect discounts, you can also supply negative line items, as in the following example.

> **NOTE:** The value that you supply for AMT must equal the total of the line item amounts that you supply.

TABLE 3.22 Negative line items with eBay auctions

Request	*[requiredSecurityParameters]*&**METHOD=DoExpressCheckoutPayment**& METHOD=DoExpressCheckoutPayment&TOKEN=EC-47C20533CU265432F& PAYERID=95HR9CM6D56Q2&PAYMENTACTION=Sale&AMT=14.99&ITEMAMT=14.99& LNAME0=Item0&LAMT0=19.99&L_EBAYITEMNUMBER0=230128323048& L_EBAYITEMAUCTIONTXNID0=0&
Response	*[successResponseFields]*&TOKEN=EC-47C20533CU265432F& TRANSACTIONID=59L39584YA765250B&TRANSACTIONTYPE=expresscheckout& PAYMENTTYPE=instant&ORDERTIME=2006-08-23T16:08:12Z&AMT=14.99& CURRENCYCODE=USD&FEEAMT=0.00&TAXAMT=0.00&PAYMENTSTATUS=Completed& PENDINGREASON=None&REASONCODE=None

4 Recurring Payments API

Recurring payments allow you to bill a customer for a fixed amount of money on a fixed schedule. The buyer signs up for recurring payments during checkout from your site. Consider the following examples:

- A buyer purchases a subscription to a magazine or newsletter from your site and agrees to pay a monthly fee.

- A buyer agrees to pay an Internet Service Provider a flat fee on a semi-annual basis to host a website.

These examples represent payment transactions that reoccur periodically and are for a fixed amount.

For more information, see the *Express Checkout Integration Guide* and the *Website Payments Pro Integration Guide*.

For API details, see "Recurring Payments and Reference Transactions" on page 93

5 Fraud Management Filters API

If you set up Fraud Management Filters, you can determine whether an API triggered a filter and manage pending payments that are held for review. For information about setting up Fraud Management Filters, see *Fraud Management Filters*.

Fraud Management Filters API Prerequisites

If your website already uses PayPal APIs and you want to use FMF, you must manage pending payments. To manage these payments, you must ensure that your website meets the following criteria:

- You must handle the `SuccessWithWarning` acknowledgement status in the response to all of the following APIs:

APIs That Can Return Fraud Management Filters Information

BillUser

DoDirectPayment

DoExpressCheckoutPayment

DoReferenceTransaction

> **NOTE:** You may lose payment transactions if you do not handle `SuccessWithWarning` acknowledgements.

- You must handle `Pending` in the `PaymentStatus` of a response as representing a successful payment.

- You must capture and evaluate the return code associated with a `SuccessWithWarning` acknowledgement.

- If you process Auths or Orders, you must be able to analyze the short message associated with a Capture failure, because a payment cannot be captured until it is taken out of the pending state. Thus, a Capture failure may occur because the transaction was pended or it may occur for some valid reason.

- Your shipping process must not allow shipping before the payment has been accepted.

> **NOTE:** Pending payments are held 30 days unless explicitly denied or accepted. After 30 days, a pending payment is automatically reversed.

- If you use Direct Payment Recurring Billing (for Pro merchants), your subscription creation process must handle a `SuccessWithWarning` acknowledgement and associated

return codes. Specifically, it must handle the situation in which only the first payment is pended; payments thereafter will not be placed in pending.

ManagePendingTransactionStatus

Call the ManagePendingTransactionStatus API to accept or deny a payment whose status is pending.

ManagePendingTransactionStatus Request

TABLE 5.1 ManagePendingTransactionStatus Request Fields

Field	Description	Required?
TRANSACTIONID	The transaction ID of the payment transaction.	Yes
ACTION	The operation you want to perform on the transaction, which is one of the following actions: ● `Accept` - accepts the payment ● `Deny` - rejects the payment	Yes

ManagePendingTransactionStatus Response

TABLE 5.2 ManagePendingTransactionStatus Response Fields

Field	Description
TRANSACTIONID	The transaction ID of the transaction whose payment has been denied or accepted.
STATUS	The status of the transaction, which is one of the following values: ● Pending ● Processing ● Completed ● Denied ● Reversed ● Display Only ● Partially Refunded ● Created Refunded

6 Back-Office Administration

This section gives you examples of the following functions:

Capturing, Authorizing, Voiding, and Reauthorizing

There are four APIs related to authorization and capture:

- `DoCapture`
- `DoAuthorization`
- `DoVoid`
- `DoReauthorization`

Making a Single Capture Using DoCapture

To capture only once, set the authorization identification number and the amount on `DoCapture`.

IMPORTANT: Capturing only once is default. To be explicit, you can set `COMPLETETYPE=Complete`.

`COMPLETETYPE=Complete` closes all outstanding authorizations for the order. You can not make anymore captures.

TABLE **6.1** *Capturing the Full Amount of an Authorization*

Request	*[requiredSecurityParameters]*&METHOD=DoCapture&**AUTHORIZATIONID=01987219673867** &AMT=99.12**&COMPLETETYPE=Complete**
Response	*[successResponseFields]*&AUTHORIZATIONID=01987219673867 &**TRANSACTIONID=7JZ9679864YA2699519**&PARENTTRANSACTIONID=01987219673867 &RECEIPTID=5151-0525-2028-5336&TRANSACTIONTYPE=express-checkout &PAYMENTTYPE=instant&ORDERTIME=2006-08-15T17:31:38Z&**AMT=99.12** &CURRENCYCODE=USD&FEEAMT=3.29&TAXAMT=0.00&PAYMENTSTATUS=Completed &PENDINGREASON=None&REASONCODE=None

Making Multiple Partial Captures Using DoCapture

You can capture a partial amount of an authorization by setting
`COMPLETETYPE=NotComplete`

On the final capture, set `COMPLETETYPE=Complete` or do not specify `COMPLETETYPE`.

This example shows three captures:

- The first two are partial captures. `COMPLETETYPE` is set to `NotComplete`
- The last capture is for the full remaining amount. `COMPLETETYPE` is set to `Complete`.

*TABLE **6.2** Capturing A Partial Amount of an Authorization*

First Partial Capture Request	*[requiredSecurityParameters]*&METHOD=DoCapture&AUTHORIZATIONID=4EL6476506322203 &AMT=112.00&**COMPLETETYPE=NotComplete**
Response	*[successResponseFields]*&AUTHORIZATIONID=4EL6476506322203 &**TRANSACTIONID=4Y117666R06578920**&PARENTTRANSACTIONID=4EL6476506322203 &RECEIPTID=5151-0525-2028-5336&TRANSACTIONTYPE=webaccept &PAYMENTTYPE=instant&ORDERTIME=2006-08-15T17:23:15Z&**AMT=112.00** &CURRENCYCODE=USD&FEEAMT=3.55&TAXAMT=0.00&PAYMENTSTATUS=Completed &PENDINGREASON=None&REASONCODE=None
Second Partial Capture Request	*[requiredSecurityParameters]*&METHOD=DoCapture&AUTHORIZATIONID=4EL6476506322203 &AMT=103.12&**COMPLETETYPE=NotComplete**
Response	*[successResponseFields]*&AUTHORIZATIONID=4EL6476506322203 &**TRANSACTIONID=7JY48864YA2699519**&PARENTTRANSACTIONID=4EL6476506322203 &RECEIPTID=5151-0525-2028-5336&TRANSACTIONTYPE=webaccept &PAYMENTTYPE=instant&ORDERTIME=2006-08-15T17:31:38Z&**AMT=103.12** &CURRENCYCODE=USD&FEEAMT=3.29&TAXAMT=0.00&PAYMENTSTATUS=Completed &PENDINGREASON=None&REASONCODE=None
Final Capture Request	*[requiredSecurityParameters]*&METHOD=DoCapture&AUTHORIZATIONID=4EL6476506322203 &AMT=103.12&**COMPLETETYPE=Complete**
Response	*[successResponseFields]*&AUTHORIZATIONID=4EL6476506322203 &**TRANSACTIONID=7JZ89864YA2699519**&PARENTTRANSACTIONID=4EL6476506322203 &RECEIPTID=5151-0525-2028-5336&TRANSACTIONTYPE=webaccept &PAYMENTTYPE=instant&ORDERTIME=2006-08-15T17:31:38Z&**AMT=90.80** &CURRENCYCODE=USD&FEEAMT=3.29&TAXAMT=0.00&PAYMENTSTATUS=Completed &PENDINGREASON=None&REASONCODE=None

Including an Invoice Number and Note on the Capture Using DoCapture

Whether the capture is for the full or a partial amount, you can include a note about the capture and your own invoice or other identification number.

TABLE 6.3 Including an Invoice Number and Note on a Capture

Request	*[requiredSecurityParameters]*&METHOD=DoCapture&AUTHORIZATIONID=4EL6476506322203 &COMPLETETYPE=Complete&AMT=304.92&**INVNUM=H091234&NOTE=UPS+trk#+b86283978**
Response	*[successResponseFields]*&AUTHORIZATIONID=4EL6476506322203 &TRANSACTIONID=7JZ89864YA2694419&PARENTTRANSACTIONID=4EL6476506322203 &RECEIPTID=5151-0525-2028-5336&TRANSACTIONTYPE=webaccept &PAYMENTTYPE=instant&ORDERTIME=2006-08-15T17:31:38Z&AMT=304.92 &CURRENCYCODE=USD&FEEAMT=3.29&TAXAMT=0.00&PAYMENTSTATUS=Completed &PENDINGREASON=None&REASONCODE=None

Refunding Using RefundTransaction

With RefundTransaction, you can refund the full amount or a partial amount of a transaction. Specify the original transaction ID and the refund type: Full or Partial.

NOTE: If you do not have the transaction ID for the refund, you can credit the customer's account without it using the DoNonReferencedCredit API. You must be approved by PayPal to use the DoNonReferencedCredit API. See your PayPal Account Manager for more information.

Full Refund

IMPORTANT: If you refund the full amount, do not set the AMT field.

TABLE 6.4 Refunding the Full Amount of a Transaction

Request	*[requiredSecurityParameters]*&**METHOD=RefundTransaction**& TRANSACTIONID=019454569673867&**REFUNDTYPE=Full**
Response	*[successResponseFields]*&REFUNDTRANSACTIONID=4RP55200GJ177180N &FEEREFUNDAMT=4.01&GROSSREFUNDAMT=127.87&NETREFUNDAMT=123.86

Partial Refunds

To refund a partial amount, set REFUNDTYPE to Partial and set the AMT.

TABLE 6.5 *Refunding A Partial Amount*

Request	*[requiredSecurityParameters]*&METHOD=RefundTransaction &TRANSACTIONID=9CX07910UV614511L**&REFUNDTYPE=Partial&AMT=12.95**
Response	*[successResponseFields]*&REFUNDTRANSACTIONID=1H0011898K637700R &FEEREFUNDAMT=0.38&GROSSREFUNDAMT=12.95&NETREFUNDAMT=12.57

Including a Note with the Refund

Whether the refund is full or partial, you can also include a note about the refund.

TABLE 6.6 *Including a Note with the Refund*

Request	*[requiredSecurityParameters]*&METHOD=RefundTransaction& TRANSACTIONID=019454569673867&REFUNDTYPE=Partial&AMT=12.95& **NOTE=Customer+changed+mind.**
Response	*[successResponseFields]*&REFUNDTRANSACTIONID=1H0011898K637700R &FEEREFUNDAMT=0.38&GROSSREFUNDAMT=12.95&NETREFUNDAMT=12.57

Searching for Transactions Using TransactionSearch

To find all transactions that occurred on a particular date, use TransactionSearch and set the STARTDATE field to the date you desire. The date must be in UTC/GMT format

.

TABLE 6.7 *Searching for Transactions by STARTDATE*

Request	*[requiredSecurityParameters]*&METHOD=TransactionSearch &**STARTDATE=2006-08-15T17:00:00Z**

Respons	*[successResponseFields]*&**L_TIMESTAMP0**=2006-08-18T05:58:41Z&
	L_TIMEZONE0=GMT&L_TYPE0=Authorization&L_NAME0=John+Doe&
	L_TRANSACTIONID0=3XK029742B016373C&L_STATUS0=Pending&L_AMT0=1.00&
	L_TIMESTAMP1=2006-08-18T05:56:20Z&L_TIMEZONE1=GMT&L_TYPE1=Payment&
	L_NAME1=John+Doe&L_TRANSACTIONID1=4BV19600WF261673U&L_STATUS1=Completed
	&L_AMT1=1.00&L_FEEAMT1=-0.33&L_NETAMT1=0.67&
	L_TIMESTAMP2=2006-08-18T05:53:22Z&L_TIMEZONE2=GMT&L_TYPE2=Payment
	&L_NAME2=John+Doe&L_TRANSACTIONID2=6XB50622KC566325C&L_STATUS2=Completed
	&L_AMT2=1.00&L_FEEAMT2=-0.33&L_NETAMT2=0.67&
	L_TIMESTAMP3=2006-08-18T05:38:04Z&L_TIMEZONE3=GMT
	&L_TYPE3=Payment&L_NAME3=John+Doe&L_TRANSACTIONID3=80774637LP956560E&
	L_STATUS3=Completed&L_AMT3=1.00&L_FEEAMT3-0.33&L_NETAMT3=0.67&
	L_TIMESTAMP4=2006-08-17T03:02:44Z&L_TIMEZONE4=GMT&L_TYPE4=Payment&
	L_NAME4=Pettibone+Smythe-Jones&L_TRANSACTIONID4=8G40321568512733L&
	L_STATUS4=Completed&L_AMT4=104.00&L_FEEAMT4=-3.32&L_NETAMT4=100.68

TransactionSearch returns a multi-valued array of all transactions that match the search criteria. Each transaction begins with its date: L_TIMESTAMPn, where *n* starts with 0 and increments by one for each transaction.

Viewing Details of a Single Transaction Using GetTransactionDetails

To view all details about a single transaction, use GetTransactionDetails.

TABLE 6.8 *Viewing A Transaction's Details*

Request	*[requiredSecurityParameters]*&METHOD=GetTransactionDetails &**TRANSACTIONID=3B288546P5019992D**
Response	*[successResponseFields]*&RECEIVERBUSINESS=Jims+Hardware
	&RECEIVEREMAIL=jim@hardwareplace.com&RECEIVERID=WNSJNN89XVWFA
	&PAYERID=B3KS3VFYNG9SN&PAYERSTATUS=unverified&FIRSTNAME=James&
	LASTNAME=Biguy&COUNTRYCODE=US&SHIPTOSTATE=&ADDRESSID=PayPal&ADDRESSSTATUS=None
	&TRANSACTIONID=3B288546P5019992D&RECEIPTID=3596-6202-14612615
	&TRANSACTIONTYPE=webaccept&PAYMENTTYPE=instant&
	ORDERTIME=2006-08-15T17:00:00Z&AMT=127.87&CURRENCYCODE=USD&FEEAMT=4.01
	&TAXAMT=0.00&PENDINGREASON=None&REASONCODE=None&SALESTAX=0.00&L_QTY0=1

A NVP API Method and Field Reference

General Characteristics of Requests and Parameters

Parameters

The request parameter string follows the query component syntax defined in <u>Uniform Resource Identifier (URI): Generic Syntax</u>. Parameter names and their values can be upper- or lowercase. We show parameter names in uppercase for clarity. All values must be URL-encoded.

Multi-Value Fields

Fields that accept multiple values have names like this:

`L_`*FIELDNAMEn*

where `L_` is literal, *FIELDNAME* is the name of the parameter, and *n* is an index number, starting at 0 and incremented by one for each value of the field. Index numbers must be sequential.

For example, if an order contains multiple items, you can add an item cost for each item using the `L_`*AMTn* parameter:

`L_AMT0``=4.95&`**`L_AMT1`**`=6.72&`**`L_AMT2`**`=7.95`

PayPal-Supported Transactional Currencies

The following currencies are supported by PayPal for use in transactions.

TABLE A.1   PayPal-Supported Currencies and Currency Codes for Transactions

ISO-4217 Code	Currency
AUD	Australian Dollar
CAD	Canadian Dollar
CHF	Swiss Franc
CZK	Czech Koruna
DKK	Danish Krone
EUR	Euro
GBP	Pound Sterling

TABLE A.1 *PayPal-Supported Currencies and Currency Codes for Transactions*

ISO-4217 Code	Currency
HKD	Hong Kong Dollar
HUF	Hungarian Forint
JPY	Japanese Yen
NOK	Norwegian Krone
NZD	New Zealand Dollar
PLN	Polish Zloty
SEK	Swedish Krona
SGD	Singapore Dollar
USD	U.S. Dollar

DoDirectPayment

DoDirectPayment Request

TABLE A.2 *DoDirectPayment Parameters*

Parameter	Description	Required?
METHOD	Name of the API: `DoDirectPayment`	Yes
PAYMENTACTION	How you want to obtain payment: • `Authorization` indicates that this payment is a basic authorization subject to settlement with PayPal Authorization & Capture. • `Sale` indicates that this is a final sale for which you are requesting payment. Character length and limit: Up to 13 single-byte alphabetic characters	Yes
IPADDRESS	IP address of the payer's browser. **IMPORTANT:** PayPal records this IP addresses as a means to detect possible fraud. Character length and limitations: 15 single-byte characters, including periods, for example: `255.255.255.255`. Allowable values: any valid Internet Protocol address.	Yes

TABLE A.2 *DoDirectPayment Parameters*

Parameter	Description	Required?
AMT	Total of order, including shipping, handling, and tax. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	Yes
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. Allowable values: ● Visa ● MasterCard ● Discover ● Amex ● Switch ● Solo **IMPORTANT:** If the credit card type is Switch or Solo, the value of PAYMENTACTION must be Authorization and the CURRENCYCODE must be GBP. In addition, either STARTDATE or ISSUENUMBER must be specified.	Yes
ACCT	Credit card number Character length and limitations: numeric characters only. No spaces or punctutation. Must conform with modulo and length required by each credit card type.	Yes
EXPDATE	Credit card expiration date. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	Yes
FIRSTNAME	Payer's first name. Character length and limitations: 25 single-byte characters	Yes
LASTNAME	Payer's last name. Character length and limitations: 25 single-byte characters	Yes
STREET	First street address. Character length and limitations: 100 single-byte characters	No
CITY	Name of city. Character length and limitations: 40 single-byte characters	No
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53."	No

TABLE A.2 ***DoDirectPayment Parameters***

Parameter	Description	Required?
COUNTRYCODE	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."	No
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	No
NOTIFYURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction. **NOTE:** If you do not specify this URL in the request, the notification URL from your Merchant Profile is used, if one exists. Character length and limitations: 2,048 single-byte alphanumeric characters	No
CURRENCYCODE	A three-character currency code. Default: USD. This parameter accepts only the following currencies: ● AUD – Australian Dollar ● CAD – Canadian Dollar ● EUR – Euro ● GBP – Pound Sterling ● JPY – Japanese Yen ● USD – U.S. Dollar	No
ITEMAMT	Sum of cost of all items in this order. Limitations: The value must be a positive number and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** ITEMAMT is required if you specify L_AMT*n*.	No
SHIPPINGAMT	Total shipping costs for this order. Limitations: The value must be zero or greater and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** If you specify a value for SHIPPINGAMT, you must also specify a value for ITEMAMT.	No
HANDLINGAMT	Total handling costs for this order. Limitations: The value must be zero or greater and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** If you specify a value for HANDLINGAMT, you must specify a value for ITEMAMT.	No

TABLE A.2   *DoDirectPayment Parameters*

Parameter	Description	Required?
TAXAMT	Sum of tax for all items in this order. Limitations: The value must be zero or greater and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** TAXAMT is required if you specify L_TAXAMT*n*.	No
DESC	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	No
CUSTOM	A free-form field for your own use. Character length and limitations: 256 single-byte alphanumeric characters	No
INVNUM	Your own invoice or tracking number. Character length and limitations: 127 single-byte alphanumeric characters	No
BUTTONSOURCE	An identification code for use by third-party applications to identify transactions. Character length and limitations: 32 single-byte alphanumeric characters	No
L_NAMEn	Item name. Character length and limitations: 127 single-byte characters These parameters must be ordered sequentially beginning with 0 (for example L_NAME0, L_NAME1).	No
L_NUMBERn	Item number. Character length and limitations: 127 single-byte characters These parameters must be ordered sequentially beginning with 0 (for example L_NUMBER0, L_NUMBER1).	No
L_QTYn	Item quantity. Character length and limitations: Any positive integer These parameters must be ordered sequentially beginning with 0 (for example L_QTY0, L_QTY1).	No
L_TAXAMTn	Item sales tax. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). These parameters must be ordered sequentially beginning with 0 (for example L_TAXAMT0, L_TAXAMT1).	No

TABLE A.2 ***DoDirectPayment Parameters***

Parameter	Description	Required?
L_AMTn	Cost of item Limitations: Value can be positive, negative or zero and must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). These parameters must be ordered sequentially beginning with 0 (for example L_AMT0, L_AMT1). **NOTE:** If you specify a value for L_AMT*n*, you must specify a value for ITEMAMT.	No
CVV2	Card Verification Value, version 2. **NOTE:** Your Merchant Account settings determine whether this field is required. Character length for Visa, MasterCard, and Discover: exactly three digits. Character length for American Express: exactly four digits. **IMPORTANT:** To comply with credit card processing regulations, once a transaction has been completed, you must not store the value of CVV2.	See description.
STARTDATE	Month and year that Switch or Solo card was issued. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	No
ISSUENUMBER	Issue number of Switch or Solo card. Character length: two numeric digits maximum.	No
EMAIL	Email address of payer. Character length and limitations: 127 single-byte characters	No
STREET2	Second street address. Character length and limitations: 100 single-byte characters	No
PHONENUM	Phone number. Character length and limit: 20 single-byte characters	No
RETURNFMFDETAILS	Flag to indicate whether you want the results returned by Fraud Management Filters. By default, you do not receive this information. ● 0 - do not receive FMF details (default) ● 1 - receive FMF details	No
Ship to Address	Optional shipping address. The parameters for the optional Ship to Address are described in Table A.3, "Ship to Address (Optional)." **IMPORTANT:** Ship to Address is optional, but if you include it, certain fields are required.	No

TABLE A.3   Ship to Address (Optional)

Parameter	Description	Required?
SHIPTONAME	Person's name associated with this address. Character length and limitations: 32 single-byte characters	Yes
SHIPTOSTREET	First street address. Character length and limitations: 100 single-byte characters	Yes
SHIPTOCITY	Name of city. Character length and limitations: 40 single-byte characters	Yes
SHIPTOSTATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53." Required for US addresses only.	No
SHIPTOZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	Yes
SHIPTOCOUNTRYCODE	Country code. Character limit: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."	Yes
SHIPTOSTREET2	Second street address. Character length and limitations: 100 single-byte characters	No
SHIPTOPHONENUM	Phone number. Character length and limit: 20 single-byte characters	No

State and Province Abbreviations

The following table contains abbreviations for Canadian provinces and U.S. states. Enter these values in STATE or SHIPTOSTATE parameter.

TABLE A.4   Abbreviations for Canadian Provinces and U.S. States

Canadian Province or U.S. State	Abbreviation
Alberta	AB
British Columbia	BC
Manitoba	MB
New Brunswick	NB
Newfoundland and Labrador	NL
Northwest Territories	NT
Nova Scotia	NS

TABLE A.4 Abbreviations for Canadian Provinces and U.S. States

Canadian Province or U.S. State	Abbreviation
Nunavut	NU
Ontario	ON
Prince Edward Island	PE
Quebec	QC
Saskatchewan	SK
Yukon	YT
Alabama	AL
Alaska	AK
American Samoa	AS
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
District of Columbia	DC
Federated States of Micronesia	FM
Florida	FL
Georgia	GA
Guam	GU
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA

TABLE A.4 *Abbreviations for Canadian Provinces and U.S. States*

Canadian Province or U.S. State	Abbreviation
Maine	ME
Marshall Islands	MH
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Northern Mariana Islands	MP
Ohio	OH
Oklahoma	OK
Oregon	OR
Palau	PW
Pennsylvania	PA
Puerto Rico	PR
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN

TABLE A.4   Abbreviations for Canadian Provinces and U.S. States

Canadian Province or U.S. State	Abbreviation
Texas	TX
Utah	UT
Vermont	VT
Virgin Islands	VI
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY
Armed Forces Americas	AA
Armed Forces	AE
Armed Forces Pacific	AP

DoDirectPayment Response

TABLE A.5   DoDirectPayment Response Fields

Field	Description
AMT	This value is the amount of the payment as specified by you on `DoDirectPaymentRequest`.
AVSCODE	Address Verification System response code. Character limit: One single-byte alphanumeric character See "AVS Response Codes" on page 57."
CVV2MATCH	Result of the CVV2 check by PayPal. See "CVV2 Response Codes" on page 58."
TRANSACTIONID	Unique transaction ID of the payment. **NOTE:** If the `PaymentAction` of the request was `Authorization`, the value of TransactionID is your AuthorizationID for use with the Authorization & Capture APIs. Character length and limitations: 19 single-byte characters
L_FMF*filter*ID*n*	Filter ID, including the filter type, which is either `ACCEPT` or `DENY`, and the entry number, starting from `0`.

TABLE A.5   DoDirectPayment Response Fields

Field	Description
L_FMF*filter*NAME*n*	Filter name, including the filter type, which is either ACCEPT or DENY, and the entry number, starting from 0.

AVS Response Codes

The following tables list the AVS response codes.

TABLE A.6   AVS Response Codes for Visa, MasterCard, Discover, and American Express

AVS Code	Meaning	Matched Details
A	Address	Address only (no ZIP)
B	International "A"	Address only (no ZIP)
C	International "N"	None **NOTE:** The transaction is declined.
D	International "X"	Address and Postal Code
E	Not allowed for MOTO (Internet/Phone) transactions	Not applicable **NOTE:** The transaction is declined.
F	UK-specific "X"	Address and Postal Code
G	Global Unavailable	Not applicable
I	International Unavailable	Not applicable
N	No	None **NOTE:** The transaction is declined.
P	Postal (International "Z")	Postal Code only (no Address)
R	Retry	Not applicable
S	Service not Supported	Not applicable
U	Unavailable	Not applicable
W	Whole ZIP	Nine-digit ZIP code (no Address)
X	Exact match	Address and nine-digit ZIP code
Y	Yes	Address and five-digit ZIP
Z	ZIP	Five-digit ZIP code (no Address)

TABLE A.6   AVS Response Codes for Visa, MasterCard, Discover, and American Express

AVS Code	Meaning	Matched Details
All others	Error	Not applicable

TABLE A.7   AVS Response Codes for Switch and Solo

0	All the address information matched.	All information matched
1	None of the address information matched.	None **NOTE:** The transaction is declined.
2	Part of the address information matched.	Partial
3	The merchant did not provide AVS information. Not processed.	Not applicable
4	Address not checked, or acquirer had no response. Service not available.	Not applicable
Null	No AVS response was obtained. Default value of field.	Not applicable

CVV2 Response Codes

The following tables list the CVV2 response codes.

TABLE A.8   CVV2 Response Codes for Visa, MasterCard, Discover, and American Express

CVV2 Code	Meaning	Matched Details
M	Match	CVV2
N	No match	None
P	Not processed	Not applicable
S	Service not supported	Not applicable
U	Service not available	Not applicable
X	No response	Not applicable

TABLE A.9   CVV2 Response Codes for Switch and Solo

0	Matched	CVV2
1	No match	None
2	The merchant has not implemented CVV2 code handling	Not applicable
3	Merchant has indicated that CVV2 is not present on card	Not applicable
4	Service not available	Not applicable
All others	Error	Not applicable

Express Checkout

IMPORTANT: To use `SetExpressCheckout` for recurring payments, you must set the `VERSION` parameter to **50.0** in your NVP API calls.

SetExpressCheckout Request

TABLE A.10 SetExpressCheckout Request Parameters

Parameter	Description	Required
METHOD	Name of the API: `SetExpressCheckout`	Yes
RETURNURL	URL to which the customer's browser is returned after choosing to pay with PayPal. **NOTE:** PayPal recommends that the value be the final review page on which the customer confirms the order and payment or billing agreement. Character length and limitations: no limit.	Yes
CANCELURL	URL to which the customer is returned if he does not approve the use of PayPal to pay you. **NOTE:** PayPal recommends that the value be the original page on which the customer chose to pay with PayPal or establish a billing agreement. Character length and limitations: no limit	Yes

TABLE A.10 *SetExpressCheckout Request Parameters* *(Continued)*

Parameter	Description	Required
AMT	The total cost of the transaction to the customer. If shipping cost and tax charges are known, include them in this value; if not, this value should be the current sub-total of the order. If the transaction includes one or more one-time purchases, this field must be equal to the sum of the purchases. If the transaction does not include a one-time purchase, this field can be set to 0. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	Yes
CURRENCYCODE	A three-character currency code for one of the currencies listed in [PayPal-Supported Transactional Currencies](). Default: USD.	No
MAXAMT	The expected maximum total amount of the complete order, including shipping cost and tax charges. If the transaction does not include a one-time purchase, this field is ignored. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	No
PAYMENTACTION	How you want to obtain payment: • `Sale` indicates that this is a final sale for which you are requesting payment. • `Authorization` indicates that this payment is a basic authorization subject to settlement with PayPal Authorization & Capture. • `Order` indicates that this payment is an order authorization subject to settlement with PayPal Authorization & Capture. If the transaction does not include a one-time purchase, this field is ignored. **NOTE:** You cannot set this value to `Sale` in SetExpressCheckout request and then change this value to `Authorization` or `Order` on the final API DoExpressCheckoutPayment request. If the value is set to `Authorization` or `Order` in SetExpressCheckout, the value may be set to `Sale` or the same value (either `Authorization` or `Order`) in DoExpressCheckoutPayment. Character length and limit: Up to 13 single-byte alphabetic characters Default value: `Sale`	No
EMAIL	Email address of the buyer as entered during checkout. PayPal uses this value to pre-fill the PayPal membership sign-up portion of the PayPal login page. Character length and limit: 127 single-byte alphanumeric characters	No

TABLE A.10 *SetExpressCheckout Request Parameters* *(Continued)*

Parameter	Description	Required
DESC	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	No
CUSTOM	A free-form field for your own use, such as a tracking number or other value you want PayPal to return on GetExpressCheckoutDetails response and DoExpressCheckoutPayment response. Character length and limitations: 256 single-byte alphanumeric characters	No
INVNUM	Your own unique invoice or tracking number. PayPal returns this value to you on DoExpressCheckoutPayment response. If the transaction does not include a one-time purchase, this field is ignored. Character length and limitations: 127 single-byte alphanumeric characters	No
REQCONFIRMSHIPPING	The value 1 indicates that you require that the customer's shipping address on file with PayPal be a confirmed address. **NOTE:** Setting this field overrides the setting you have specified in your Merchant Account Profile. Character length and limitations: One single-byte numeric character. Allowable values: 0, 1 Default: 0	No
NOSHIPPING	The value 1 indicates that on the PayPal pages, no shipping address fields should be displayed whatsoever. Character length and limitations: One single-byte numeric character. Allowable values: 0, 1 Default: 0	No
ADDROVERRIDE	The value 1 indicates that the PayPal pages should display the shipping address set by you in this SetExpressCheckout request, not the shipping address on file with PayPal for this customer. Displaying the PayPal street address on file does not allow the customer to edit that address. Character length and limitations: One single-byte numeric character. Allowable values: 0, 1 Default: 0	No
TOKEN	A timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout. **NOTE:** The token expires after three hours. If you set the token in the SetExpressCheckout request, the value of the token in the response is identical to the value in the request. Character length and limitations: 20 single-byte characters Allowable values: See the description of TOKEN in Table A.12, "SetExpressCheckout Response Fields."	No

TABLE A.10 *SetExpressCheckout Request Parameters* *(Continued)*

Parameter	Description	Required
LOCALECODE	Locale of pages displayed by PayPal during Express Checkout. Character length and limitations: Any two-character country code. The following two-character country codes are supported by PayPal: - AT - AU - BE - CA - CH - CN - DE - ES - FR - GB - IT - NL - PL - US Any other value will default to US. **NOTE:** For the list of country codes, see Appendix G, "Country Codes."	No
PAGESTYLE	Sets the Custom Payment Page Style for payment pages associated with this button/link. This value corresponds to the HTML variable page_style for customizing payment pages. The value is the same as the Page Style Name you chose when adding or editing the page style from the Profile subtab of the My Account tab of your PayPal account. Character length and limitations: 30 single-byte alphabetic characters.	No
HDRIMG	URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high. PayPal recommends that you provide an image that is stored on a secure (https) server. If you do not specify an image, the business name is displayed. Character length and limit: 127 single-byte alphanumeric characters	No
HDRBORDERCOLOR	Sets the border color around the header of the payment page. The border is a 2-pixel perimeter around the header space, which is 750 pixels wide by 90 pixels high. By default, the color is black. Character length and limitations: Six character HTML hexadecimal color code in ASCII	No
HDRBACKCOLOR	Sets the background color for the header of the payment page. By default, the color is white. Character length and limitation: Six character HTML hexadecimal color code in ASCII	No

TABLE A.10 **SetExpressCheckout Request Parameters** *(Continued)*

Parameter	Description	Required
PAYFLOWCOLOR	Sets the background color for the payment page. By default, the color is white. Character length and limitation: Six character HTML hexadecimal color code in ASCII	No
CHANNELTYPE	Type of channel: • Merchant: non-auction seller • eBayItem: eBay auction If the transaction does not include a one-time purchase, this field is ignored.	No
SOLUTIONTYPE	Type of checkout flow: • Sole: Express Checkout for auctions • Mark: normal Express Checkout If the transaction does not include a one-time purchase, this field is ignored.	No
GIROPAYSUCCESS URL	The URL on the merchant site to redirect to after a successful giropay payment. . Use this field only if you are using giropay or bank transfer payment methods in Germany.	No
GIROPAYCANCELURL	The URL on the merchant site to redirect to after a giropay or bank transfer payment is cancelled or fails. Use this field only if you are using giropay or bank transfer payment methods in Germany.	No
BANKTXNPENDING URL	The URL on the merchant site to transfer to after a bank transfer payment. Use this field only if you are using giropay or bank transfer payment methods in Germany.	No
L_BILLINGTYPE*n*	Type of billing agreement. For recurring payments, this field is required and must be set to RecurringPayments.	See description n
L_BILLING AGREEMENT DESCRIPTION*n*	Description of goods or services associated with the billing agreement. PayPal recommends that you provide a brief summary of the terms & conditions of the billing agreement.	No
L_CUSTOM*n*	Custom annotation field for your own use. **NOTE:** This field is ignored for recurring payments.	No
L_PAYMENTTYPE*n*	Specifies type of PayPal payment you require for the billing agreement, which is one of the following values. • Any • InstantOnly **NOTE:** This field is ignored for recurring payments.	No

TABLE A.10 **SetExpressCheckout Request Parameters** *(Continued)*

Parameter	Description	Required
See Table A.11 on page 64	Optional shipping address. The parameters for the optional Ship to Address are described in Table A.11, "Ship to Address (Optional)." **IMPORTANT:** Ship to Address is optional, but if you include it, certain fields are required.	No

TABLE A.11 **Ship to Address (Optional)**

Parameter	Description	Required
SHIPTONAME	Person's name associated with this shipping address. Character length and limitations: 32 single-byte characters	Yes
SHIPTOSTREET	First street address. Character length and limitations: 100 single-byte characters	Yes
SHIPTOCITY	Name of city. Character length and limitations: 40 single-byte characters	Yes
SHIPTOSTATE	State or province. Character length and limitations: 40 single-byte characters Required for US addresses only.	No
SHIPTOCOUNTRYCODE	Country code. Character limit: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."	Yes
SHIPTOZIP	U.S. Zip code or other country-specific postal code. Character length and limitations: 20 single-byte characters	Yes
SHIPTOSTREET2	Second street address. Character length and limitations: 100 single-byte characters	No
PHONENUM	Phone number. Character length and limit: 20 single-byte characters	No

SetExpressCheckout Response

TABLE A.12 *SetExpressCheckout Response Fields*

Parameter	Description
TOKEN	A timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout.
	NOTE: The token expires after three hours.
	If you set the token in the SetExpressCheckout request, the value of the token in the response is identical to the value in the request.
	Character length and limitations: 20 single-byte characters

Redirecting the Customer's Browser to PayPal Login Page

After you receive a successful response from SetExpressCheckout, add the TOKEN from SetExpressCheckout response as a name/value pair to the following URL, and redirect your customer's browser to it:

```
https://www.paypal.com/cgi-bin/webscr?cmd=_express-checkout&
token=value_from_SetExpressCheckoutResponse
```

For redirecting the customer's browser to the PayPal login page, PayPal recommends that you use the HTTPS response 302 "Object Moved" with the URL above as the value of the Location header in the HTTPS response. Ensure that you use an SSL-enabled server to prevent browser warnings about a mix of secure and insecure graphics.

GetExpressCheckoutDetails Request

TABLE A.13 *GetExpressCheckoutDetails Parameters*

Parameter	Description	Required?
METHOD	Name of the API: GetExpressCheckoutDetails	Yes
TOKEN	A timestamped token, the value of which was returned by SetExpressCheckout response. Character length and limitations: 20 single-byte characters Allowable values: An unexpired token	Yes

GetExpressCheckoutDetails Response

TABLE A.14 GetExpressCheckoutDetails Response Fields

Field	Description
TOKEN	The timestamped token value that was returned by SetExpressCheckout response and passed on GetExpressCheckoutDetails request. Character length and limitations: 20 single-byte characters Possible values: See the description of TOKEN in Table A.12, "SetExpressCheckout Response Fields."
EMAIL	Email address of payer. Character length and limitations: 127 single-byte characters
PAYERID	Unique PayPal customer account identification number. Character length and limitations:13 single-byte alphanumeric characters.
PAYERSTATUS	Status of payer. Valid values are: • verified • unverified Character length and limitations: 10 single-byte alphabetic characters. Possible values: verified, unverified
SALUTATION	Payer's salutation. Character length and limitations: 20 single-byte characters
FIRSTNAME	Payer's first name. Character length and limitations: 25 single-byte characters
MIDDLENAME	Payer's middle name. Character length and limitations: 25 single-byte characters
LASTNAME	Payer's last name. Character length and limitations: 25 single-byte characters
SUFFIX	Payer's suffix. Character length and limitations: 12 single-byte characters
COUNTRYCODE	Payer's country of residence in the form of ISO standard 3166 two-character country codes. Character length and limitations: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."
BUSINESS	Payer's business name. Character length and limitations: 127 single-byte characters
SHIPTONAME	Person's name associated with this address. Character length and limitations: 32 single-byte characters

TABLE A.14 **GetExpressCheckoutDetails Response Fields** *(Continued)*

Field	Description
SHIPTOSTREET	First street address. Character length and limitations: 100 single-byte characters
SHIPTOSTREET2	Second street address. Character length and limitations: 100 single-byte characters
SHIPTOCITY	Name of city. Character length and limitations: 40 single-byte characters
SHIPTOSTATE	State or province Character length and limitations: 40 single-byte characters
SHIPTOCOUNTRYCODE	Country code. Character limit: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."
SHIPTOZIP	U.S. Zip code or other country-specific postal code. Character length and limitations: 20 single-byte characters
ADDRESSSTATUS	Status of street address on file with PayPal
CUSTOM	A free-form field for your own use, as set by you in the Custom element of SetExpressCheckout request. Character length and limitations: 256 single-byte alphanumeric characters
INVNUM	Your own invoice or tracking number, as set by you in the element of the same name in SetExpressCheckout request . Character length and limitations: 127 single-byte alphanumeric characters
PHONENUM	Payer's contact telephone number. **NOTE:** PayPal returns a contact telephone number only if your Merchant account profile settings require that the buyer enter one. Character length and limitations: Field mask is XXX-XXX-XXXX (for US numbers) or +XXX XXXXXXXX (for international numbers)
REDIRECTREQUIRED	Flag to indicate whether you need to redirect the customer to back to PayPal after completing the transaction. **NOTE:** Use this field only if you are using giropay or bank transfer payment methods in Germany.
BILLINGAGREEMENTA CCEPTEDSTATUS	Whether or not the customer accepted the billing agreement. This value always returns Yes.

DoExpressCheckoutPayment Request

Request to obtain payment with PayPal Express Checkout.

> **IMPORTANT:** PayPal requires that a merchant using Express Checkout display to the customer the same amount that the merchant sends to PayPal in the `AMT` parameter with the `DoExpressCheckoutPayment` request API.

TABLE A.15 DoExpressCheckoutPayment Parameters

Parameter	Description	Req?
METHOD	Name of the API: `DoExpressCheckoutPayment`	Yes
TOKEN	The timestamped token value that was returned by `SetExpressCheckout` response and passed on `GetExpressCheckoutDetails` request. Character length and limitations: 20 single-byte characters	Yes
PAYMENTACTION	How you want to obtain payment: • `Sale` indicates that this is a final sale for which you are requesting payment. • `Authorization` indicates that this payment is a basic authorization subject to settlement with PayPal Authorization & Capture. • `Order` indicates that this payment is an order authorization subject to settlement with PayPal Authorization & Capture. If the transaction does not include a one-time purchase, this field is ignored. **NOTE:** You cannot set this value to `Sale` in `SetExpressCheckout` request and then change this value to `Authorization` or `Order` on the final API `DoExpressCheckoutPayment` request. If the value is set to `Authorization` or `Order` in `SetExpressCheckout`, the value may be set to `Sale` or the same value (either `Authorization` or `Order`) in `DoExpressCheckoutPayment`. Character length and limit: Up to 13 single-byte alphabetic characters Default value: `Sale` Allowable Values: • `Authorization` • `Order` • `Sale` Default: The transaction resulting from `DoExpressCheckoutPayment` request will be a final sale..	Yes
PAYERID	Unique PayPal customer account identification number as returned by `GetExpressCheckoutDetails` response. Character length and limitations: 13 single-byte alphanumeric characters.	Yes
AMT	Total of order, including shipping, handling, and tax. **NOTE:** Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	Yes

TABLE A.15 *DoExpressCheckoutPayment Parameters* (Continued)

Parameter	Description	Req?
DESC	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	No
CUSTOM	A free-form field for your own use. Character length and limitations: 256 single-byte alphanumeric characters	No
INVNUM	Your own invoice or tracking number. Character length and limitations: 127 single-byte alphanumeric characters	No
BUTTONSOURCE	An identification code for use by third-party applications to identify transactions. Character length and limitations: 32 single-byte alphanumeric characters	No
NOTIFYURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction. **IMPORTANT:** If you do not specify this value in the request, the notification URL from your Merchant Profile is used, if one exists. Character length and limitations: 2,048 single-byte alphanumeric characters	No
ITEMAMT	Sum of cost of all items in this order. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** ITEMAMT is required if you specify a value for L_AMT*n*.	No
SHIPPINGAMT	Total shipping costs for this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD.	No
HANDLINGAMT	Total handling costs for this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD.	No

TABLE A.15 *DoExpressCheckoutPayment Parameters (Continued)*

Parameter	Description	Req?
TAXAMT	Sum of tax for all items in this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** TAXAMT is required if you specify a value for L_TAXAMT*n*.	No
CURRENCYCODE	A three-character currency code for one of the currencies listed in <u>PayPal-Supported Transactional Currencies</u>. Default: USD.	No
L_NAMEn	Item name. Character length and limitations: 127 single-byte characters These parameters must be ordered sequentially beginning with 0 (for example L_NAME0, L_NAME1).	No
L_NUMBERn	Item number. Character length and limitations: 127 single-byte characters These parameters must be ordered sequentially beginning with 0 (for example L_NUMBER0, L_NUMBER1).	No
L_QTYn	Item quantity. Character length and limitations: Any positive integer These parameters must be ordered sequentially beginning with 0 (for example L_QTY0, L_QTY1).	No
L_TAXAMTn	Item sales tax. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). These parameters must be ordered sequentially beginning with 0 (for example L_TAXAMT0, L_TAXAMT1).	No
L_AMTn	Cost of item Limitations: Value can be positive, negative or zero and must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). These parameters must be ordered sequentially beginning with 0 (for example L_AMT0, L_AMT1). **NOTE:** If you specify a value for L_AMT*n*, you must specify a value for ITEMAMT.	No
L_EBAYITEMNUMBERn	Auction item number Character length: 765 single-byte characters	No

TABLE A.15 **DoExpressCheckoutPayment Parameters** *(Continued)*

Parameter	Description	Req?
L_EBAYITEMAUCTION TXNIDn	Auction transaction identification number Character length: 255 single-byte characters	No
L_EBAYITEMORDERIDn	Auction order identification number Character length: 64 single-byte characters	No
RETURNFMFDETAILS	Flag to indicate whether you want the results returned by Fraud Management Filters. By default, you do not receive this information. ● 0 - do not receive FMF details (default) ● 1 - receive FMF details	No

TABLE A.16 **Optional Ship to Address**

Parameter	Description	Required?
SHIPTONAME	Person's name associated with this address. Character length and limitations: 32 single-byte characters	Yes
SHIPTOSTREET	First street address. Character length and limitations: 100 single-byte characters	Yes
SHIPTOCITY	Name of city. Character length and limitations: 40 single-byte characters	Yes
SHIPTOSTATE	State or province. Character length and limitations: 40 single-byte characters Required for US addresses only.	No
SHIPTOCOUNTRYCODE	Country code. Character limit: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."	Yes
SHIPTOZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	Yes
SHIPTOSTREET2	Second street address. Character length and limitations: 100 single-byte characters	No
SHIPTOPHONENUM	Phone number. Character length and limit: 20 single-byte characters	No

DoExpressCheckoutPayment Response

TABLE A.17 DoExpressCheckout Payment Response Fields

Field	Description
TOKEN	The timestamped token value that was returned by `SetExpressCheckout` response and passed on `GetExpressCheckoutDetails` request. Character length and limitations:20 single-byte characters Allowable values: See the description of TOKEN in Table A.12, "SetExpressCheckout Response Fields."
TRANSACTIONID	Unique transaction ID of the payment. **NOTE:** If the `PaymentAction` of the request was `Authorization` or Order, this value is your AuthorizationID for use with the Authorization & Capture APIs. Character length and limitations:19 single-byte characters Possible values: Transaction specific
TRANSACTIONTYPE	The type of transaction Character length and limitations:15 single-byte characters Possible values: • `cart` • `express-checkout`
PAYMENTTYPE	Indicates whether the payment is instant or delayed. Character length and limitations: Seven single-byte characters Possible values: • `none` • `echeck` • `instant`
ORDERTIME	Time/date stamp of payment Possible values: Transaction specific
AMT	The final amount charged, including any shipping and taxes from your Merchant Profile. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. Possible Values: Transaction specific
CURRENCYCODE	A three-character currency code for one of the currencies listed in PayPay-Supported Transactional Currencies. Default: USD.

***TABLE A.17** DoExpressCheckout Payment Response Fields*

Field	Description
FEEAMT	PayPal fee amount charged for the transaction Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. Possible values: Transaction specific
SETTLEAMT	Amount deposited in your PayPal account after a currency conversion. Possible values: Transaction specific
TAXAMT	Tax charged on the transaction. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. Possible values: Transaction specific
EXCHANGERATE	Exchange rate if a currency conversion occurred. Relevant only if your are billing in their non-primary currency. If the customer chooses to pay with a currency other than the non-primary currency, the conversion occurs in the customer's account. Character length and limitations: a decimal that does not exceed 17 characters, including decimal point Possible values: Transaction specific
PAYMENTSTATUS	Status of the payment: Completed: The payment has been completed, and the funds have been added successfully to your account balance. Pending: The payment is pending. See the PendingReason element for more information.

***TABLE A.17** DoExpressCheckout Payment Response Fields*

Field	Description
PENDINGREASON	The reason the payment is pending: ● none: No pending reason ● address: The payment is pending because your customer did not include a confirmed shipping address and your Payment Receiving Preferences is set such that you want to manually accept or deny each of these payments. To change your preference, go to the Preferences section of your Profile. ● echeck: The payment is pending because it was made by an eCheck that has not yet cleared. ● intl: The payment is pending because you hold a non-U.S. account and do not have a withdrawal mechanism. You must manually accept or deny this payment from your Account Overview. ● multi-currency: You do not have a balance in the currency sent, and you do not have your Payment Receiving Preferences set to automatically convert and accept this payment. You must manually accept or deny this payment. ● verify: The payment is pending because you are not yet verified. You must verify your account before you can accept this payment. ● other: The payment is pending for a reason other than those listed above. For more information, contact PayPal customer service.
REASONCODE	The reason for a reversal if TransactionType is reversal: ● none: No reason code ● chargeback: A reversal has occurred on this transaction due to a chargeback by your customer. ● guarantee: A reversal has occurred on this transaction due to your customer triggering a money-back guarantee. ● buyer-complaint: A reversal has occurred on this transaction due to a complaint about the transaction from your customer. ● refund: A reversal has occurred on this transaction because you have given the customer a refund. ● other: A reversal has occurred on this transaction due to a reason not listed above.
REDIRECTREQUIRED	Flag to indicate whether you need to redirect the customer to back to PayPal after completing the transaction. **NOTE:** Use this field only if you are using giropay or bank transfer payment methods in Germany.
L_FMF*filter*ID*n*	Filter ID, including the filter type, which is either ACCEPT or DENY, and the entry number, starting from 0.
L_FMF*filter*NAME*n*	Filter name, including the filter type, which is either ACCEPT or DENY, and the entry number, starting from 0.

Authorization & Capture

DoAuthorization

TABLE A.18 **DoAuthorization Parameters**

Parameter	Description	Required?
METHOD	Name of the API: DoAuthorization	Yes
TRANSACTIONID	The value of the order's transaction identification number returned by PayPal. Character length and limits: 19 single-byte characters maximum	Yes
AMT	Amount to authorize. Limitations: Value is a positive number which cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	
TRANSACTIONENTITY	Type of transaction to authorize. The only allowable value is Order, which means that the transaction represents a customer order that can be fulfilled over 29 days.	No
CURRENCYCODE	A three-character currency code for one of the currencies listed in PayPal-Supported Transactional Currencies. Default: USD.	No

TABLE A.19 **DoAuthorization Response Fields**

Field	Description
TRANSACTIONID	An authorization identification number.
AMT	The amount you specified in the request.

DoCapture

TABLE **A.20** *DoCapture Parameters*

Parameter	Description	Required?
METHOD	Name of API: DoCapture	Yes
AUTHORIZATIONID	The authorization identification number of the payment you want to capture. This is the transaction id returned from `DoExpressCheckoutPayment` or `DoDirectPayment`. Character length and limits: 19 single-byte characters maximum.	Yes
AMT	Amount to capture. Limitations: Value is a positive number which cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	Yes
CURRENCYCODE	A three-character currency code for one of the currencies listed in PayPal-Supported Transactional Currencies. Default: USD.	No
COMPLETETYPE	The value `Complete` indicates that this the last capture you intend to make. The value `NotComplete` indicates that you intend to make additional captures. **NOTE:** If `Complete`, any remaining amount of the original authorized transaction is automatically voided and all remaining open authorizations are voided. Character length and limits: 12 single-byte alphanumeric characters	Yes
INVNUM	Your invoice number or other identification number that is displayed to the merchant and customer in his transaction history. **NOTE:** This value on `DoCapture` will overwrite a value previously set on `DoAuthorization`. **NOTE:** The value is recorded only if the authorization you are capturing is an order authorization, not a basic authorization. Character length and limits: 127 single-byte alphanumeric characters	No
NOTE	An informational note about this settlement that is displayed to the payer in email and in his transaction history. Character length and limits: 255 single-byte characters	No

TABLE A.20 *DoCapture Parameters*

Parameter	Description	Required?
SOFTDESCRIPTOR	The soft descriptor is a per transaction description of the payment that is passed to the consumer's credit card statement.	No
	If a value for the soft descriptor field is provided, the full descriptor displayed on the customer's statement has the following format:	
	`<PP *	PAYPAL *><Merchant descriptor as set in the Payment Receiving Preferences><1 space><soft descriptor>`	
	The soft descriptor can contain only the following characters: ● Alphanumeric characters ● - (dash) ● * (asterisk) ● . (period) ● {space}	
	If you use any other characters (such as ","), an error code is returned.	
	The soft descriptor does not include the phone number, which can be toggled between the merchant's customer service number and PayPal's customer service number.	
	The maximum length of the total soft descriptor is 22 characters. Of this, either 4 or 8 characters are used by the PayPal prefix shown in the data format. Thus, the maximum length of the soft descriptor passed in the API request is:	
	`22 - len(<PP * | PAYPAL *>) - len(<Descriptor set in Payment Receiving Preferences> + 1)`	
	For example, assume the following conditions: ● The PayPal prefix toggle is set to PAYPAL * in PayPal's admin tools ● The merchant descriptor set in the Payment Receiving Preferences is set to EBAY. ● The soft descriptor is passed in as JanesFlowerGifts LLC	
	The resulting descriptor string on the credit card would be:	
	`PAYPAL *EBAY JanesFlow`	

TABLE A.21 *DoCapture Response Fields*

Field	Description
AUTHORIZATIONID	The authorization identification number you specified in the request. Character length and limits: 19 single-byte characters maximum
TRANSACTIONID	Unique transaction ID of the payment. Character length and limitations: 17 single-byte characters

TABLE A.21 DoCapture Response Fields

Field	Description
PARENTTRANSACTIONID	Parent or related transaction identification number. This field is populated for the following transaction types: • Reversal. Capture of an authorized transaction. • Reversal. Reauthorization of a transaction. • Capture of an order. The value of ParentTransactionID is the original OrderID. • Authorization of an order. The value of ParentTransactionID is the original OrderID. • Capture of an order authorization. • Void of an order. The value of ParentTransactionID is the original OrderID. Character length and limits: 16 digits in xxxx-xxxx-xxxx-xxxx format
RECEIPTID	Receipt identification number Character length and limits: 16 digits in xxxx-xxxx-xxxx-xxxx format
TRANSACTIONTYPE	The type of transaction • cart • express-checkout Character length and limitations: 15 single-byte characters
PAYMENTTYPE	Indicates whether the payment is instant or delayed. Character length and limitations: Seven single-byte characters
ORDERTIME	Time/date stamp of payment. For example: 2006-08-15T17:23:15Z.
AMT	The final amount charged, including any shipping and taxes from your Merchant Profile.
FEEAMT	PayPal fee amount charged for the transaction
SETTLEAMT	Amount deposited in your PayPal account if there is a currency conversion.
TAXAMT	Tax charged on the transaction, if any
EXCHANGERATE	Exchange rate if a currency conversion occurred. Relevant only if you are billing in the customer's non-primary currency. If the customer chooses to pay with a currency other than the non-primary currency, the conversion occurs in the customer's account. Character length and limitations: a decimal multiplier

TABLE A.21 DoCapture Response Fields

Field	Description
PAYMENTSTATUS	Status of the payment.
	The status of the payment:
	• `None`: No status
	• `Canceled-Reversal`: This means a reversal has been canceled. For example, you won a dispute with the customer, and the funds for the transaction that was reversed have been returned to you.
	• `Completed`: The payment has been completed, and the funds have been added successfully to your account balance.
	• `Denied`: You denied the payment. This happens only if the payment was previously pending because of possible reasons described for the PendingReason element.
	• `Expired`: the authorization period for this payment has been reached.
	• `Failed`: The payment has failed. This happens only if the payment was made from your customer's bank account.
	• `Pending`: The payment is pending. See the `PendingReason` field for more information.
	• `Refunded`: You refunded the payment.
	• `Reversed`: A payment was reversed due to a chargeback or other type of reversal. The funds have been removed from your account balance and returned to the buyer. The reason for the reversal is specified in the `ReasonCode` element.
	• `Processed`: A payment has been accepted.
	• `Voided`: An authorization for this transaction has been voided.

DoReauthorization

TABLE A.22 DoReauthorization Request Parameters

Parameter	Description	Required?
METHOD	Name of API: `DoReauthorization`	Yes
AUTHORIZATIONID	The value of a previously authorized transaction identification number returned by PayPal. Character length and limits: 19 single-byte characters maximum	Yes
AMT	Amount to reauthorize. Limitations: Value is a positive number which cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	Yes

TABLE A.22 *DoReauthorization Request Parameters*

Parameter	Description	Required?
CURRENCYCODE	A three-character currency code for one of the currencies listed in [PayPal-Supported Transactional Currencies](). Default: USD.	No

TABLE A.23 *DoReauthorization Response Fields*

Field	Description
AUTHORIZATIONID	A new authorization identification number. Character length and limits:19 single-byte characters

DoVoid

TABLE A.24 *DoVoid Request Parameters*

Parameter	Description	Required?
METHOD	Name of API: DoVoid	Yes
AUTHORIZATIONID	The value of the original authorization identification number returned by a PayPal product. **IMPORTANT:** If you are voiding a transaction that has been reauthorized, use the ID from the original authorization, and not the reauthorization. Character length and limits: 19 single-byte characters	Yes
NOTE	An informational note about this void that is displayed to the payer in email and in his transaction history. Character length and limits: 255 single-byte characters	No

TABLE A.25 *DoVoid Response Fields*

Field	Description
AUTHORIZATIONID	The authorization identification number you specified in the request. Character length and limits: 19 single-byte characters

RefundTransaction

TABLE A.26 *RefundTransaction Request Parameters*

Parameter	Description	Required?
METHOD	Name of API call: RefundTransaction	Yes
TRANSACTIONID	Unique identifier of a transaction Character length and limitations: 17 single-byte alphanumeric characters	Yes
REFUNDTYPE	Type of refund you are making ● Other ● Full ● Partial	Yes
AMT	Refund amount. Amount is required if RefundType is Partial. **NOTE:** If RefundType is Full, do not set Amount.	No
NOTE	Custom memo about the refund. Character length and limitations: 255 single-byte alphanumeric characters	No

TABLE A.27 *DoRefund Response Fields*

Field	Description
REFUNDTRANSACTIONID	Unique transaction ID of the refund. Character length and limitations:17 single-byte characters
NETREFUNDAMT	Amount subtracted from PayPal balance of original recipient of payment to make this refund
FEEREFUNDAMT	Transaction fee refunded to original recipient of payment
GROSSREFUNDAMT	Amount of money refunded to original payer

TransactionSearch

With TransactionSearch you must always set the StartDate field. Some other behavior:

● Setting TransactionID overrides all other fields (even the required StartDate field).

● The effect of setting other elements is additive or can alter the search criteria.

TransactionSearch returns up to 100 matches. Partial matches are displayed. For example, setting the TransactionSearchRequest FirstName to "Jess" returns results such as "Jessica" and "Jesse".

The most important returned element is `TransactionID`, which you can pass to `GetTransactionDetails` in order to retrieve all available information about a specific transaction.

TABLE A.28 TransactionSearch Request Parameters

Parameter	Description	Required
METHOD	Name of API call: `TransactionSearch`	Yes
STARTDATE	The earliest transaction date at which to start the search. No wildcards are allowed. The value must be in UTC/GMT format.	Yes
ENDDATE	The latest transaction date to be included in the search	No
EMAIL	Search by the buyer's email address Character length and limitations: 127 single-byte alphanumeric characters	No
RECEIVER	Search by the receiver's email address. If the merchant account has only one email, this is the primary email. Can also be a non-primary email.	No
RECEIPTID	Search by the PayPal Account Optional receipt ID	No
TRANSACTIONID	Search by the transaction ID. The returned results are from the merchant's transaction records. Character length and limitations: 19 single-byte characters maximum	No
INVNUM	Search by invoice identification key, as set by you for the original transaction. This field searches the records for items sold by the merchant, not the items purchased. **IMPORTANT:** No wildcards are allowed. Character length and limitations: 127 single-byte characters maximum	No
ACCT	Search by credit card number, as set by you for the original transaction. This field searches the records for items sold by the merchant, not the items purchased. **IMPORTANT:** No wildcards are allowed. Character length and limitations: Must be at least 11 and no more than 25 single-byte numeric characters maximum. Special punctuation, such as dashes or spaces, is ignored.	No
SALUTATION	Buyer's salutation Character length and limitations: 20 single-byte characters	No
FIRSTNAME	Buyer's first name Character length and limitations: 25 single-byte characters	No
MIDDLENAME	Buyer's middle name Character length and limitations: 25 single-byte characters	No

TABLE A.28 *TransactionSearch Request Parameters*

Parameter	Description	Required
LASTNAME	Buyer's last name Character length and limitations: 25 single-byte characters	No
SUFFIX	Payer's suffix Character length and limitations: 12 single-byte characters	No
AUCTIONITEMNUMBER	Search by auction item number of the purchased goods	No
TRANSACTIONCLASS	Search by classification of transaction. **NOTE:** Some kinds of possible classes of transactions are not searchable with `this field`. You cannot search for bank transfer withdrawals, for example. • `All`: all transaction classifications • `Sent`: only payments sent • `Received`: only payments received • `MassPay`: only mass payments • `MoneyRequest`: only money requests • `FundsAdded`: only funds added to balance • `FundsWithdrawn`: only funds withdrawn from balance • `Referral`: only transactions involving referrals • `Fee`: only transactions involving fees • `Subscription`: only transactions involving subscriptions • `Dividend`: only transactions involving dividends • `Billpay`: only transactions involving BillPay Transactions • `Refund`: only transactions involving funds • `CurrencyConversions`: only transactions involving currency conversions • `BalanceTransfer`: only transactions involving balance transfers • `Reversal`: only transactions involving BillPay reversals • `Shipping`: only transactions involving UPS shipping fees • `BalanceAffecting`: only transactions that affect the account balance • `ECheck`: only transactions involving eCheck	No
AMT	Search by transaction amount	No

TABLE A.28 *TransactionSearch Request Parameters*

Parameter	Description	Required
STATUS	Search by transaction status: ● `Pending`: The payment is pending. The specific reason the payment is pending is returned by the GetTransactionDetails API `PendingReason` field. ● `Processing`: The payment is being processed. ● `Success`: The payment has been completed and the funds have been added successfully to your account balance. ● `Denied`: You denied the payment. This happens only if the payment was previously pending. ● `Reversed`: A payment was reversed due to a chargeback or other type of reversal. The funds have been removed from your account balance and returned to the buyer.	No

TABLE A.29 *TransactionSearch Response Fields*

Field	Description
L_TIMESTAMPn	The date and time (in UTC/GMT format) the transaction occurred These parameters must be ordered sequentially beginning with 0 (for example, L_TIMESTAMP0, L_TIMESTAMP1).
L_TIMEZONEn	The time zone of the transaction These parameters must be ordered sequentially beginning with 0 (for example, L_TIMEZONE0, L_TIMEZONE1).
L_TYPEn	The type of the transaction These parameters must be ordered sequentially beginning with 0 (for example, L_TYPE0, L_TYPE1).
L_EMAILn	The email address of either the payer or the payment recipient (the "payee"). If the payment amount is positive, this field is the recipient of the funds. If the payment is negative, this field is the paying customer. These parameters must be ordered sequentially beginning with 0 (for example, L_EMAIL0, L_EMAIL1).
L_NAMEn	Display name of the payer These parameters must be ordered sequentially beginning with 0 (for example, L_NAME0, L_NAME1).
L_TRANSACTIONIDn	Seller's transaction ID These parameters must be ordered sequentially beginning with 0 (for example, L_TRANSACTIONID0, L_TRANSACTIONID1.
L_STATUSn	The status of the transaction. These parameters must be ordered sequentially beginning with 0 (for example, L_STATUS0, L_STATUS1).

TABLE A.29 TransactionSearch Response Fields

Field	Description
L_AMTn	The total gross amount charged, including any profile shipping cost and taxes These parameters must be ordered sequentially beginning with 0 (for example, L_AMT0, L_AMT1).
L_FEEAMTn	The fee that PayPal charged for the transaction These parameters must be ordered sequentially beginning with 0 (for example, L_FEEAMT0, L_FEEAMT1).
L_NETAMTn	The net amount of the transaction These parameters must be ordered sequentially beginning with 0 (for example, L_NETAMT0, L_NETAMT1).

GetTransactionDetails

TABLE A.30 GetTransactionDetails Request Parameters

Parameter	Description	Required?
METHOD	Name of the API: GetTransactionDetails	Yes
TRANSACTIONID	Unique identifier of a transaction. **NOTE:** The details for some kinds of transactions cannot be retrieved with GetTransactionDetails. You cannot obtain details of bank transfer withdrawals, for example. Character length and limitations: 17 single-byte alphanumeric characters	Yes

TABLE A.31 GetTransactionDetails Response Fields

Parameter	Description
RECEIVERBUSINESS	Email address or account ID of the payment recipient (the seller). Equivalent to Receiver if payment is sent to primary account. Character length and limitations: 127 single-byte alphanumeric characters
RECEIVEREMAIL	Primary email address of the payment recipient (the seller). If you are the recipient of the payment and the payment is sent to your non-primary email address, the value of Receiver is still your primary email address. Character length and limitations: 127 single-byte alphanumeric characters
RECEIVERID	Unique account ID of the payment recipient (the seller). This value is the same as the value of the recipient's referral ID.
EMAIL	Email address of payer Character length and limitations: 127 single-byte characters

TABLE A.31 *GetTransactionDetails Response Fields*

Parameter	Description
PAYERID	Unique customer ID. Character length and limitations: 13 single-byte alphanumeric characters.
PAYERSTATUS	Status of payer's email address: Verified Unverified
FIRSTNAME	Payer's first name Character length and limitations: 25 single-byte characters
LASTNAME	Payer's last name Character length and limitations: 25 single-byte characters
MIDDLENAME	Payer's middle name Character length and limitations: 25 single-byte characters
PAYERBUSINESS	Payer's business name. Character length and limitations: 127 single-byte characters
SHIPTOCOUNTRYCODE	Payment sender's country of residence using standard two-character ISO 3166 country codes. Character length and limitations: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."
SALUTATION	Payer's salutation Character length and limitations: 20 single-byte characters
SUFFIX	Payer's suffix Character length and limitations: 12 single-byte characters
ADDRESSOWNER	eBay company that maintains this address
ADDRESSSTATUS	Status of the address on file with PayPal: None Confirmed Unconfirmed
SHIPTOCITY	Name of city. Character length and limitations: 120 single-byte alphanumeric characters
SHIPTONAME	Person's name associated with this address. Character length and limitations: 32 single-byte alphanumeric characters
SHIPTOPHONENUM	Phone number associated with this address
SHIPTOZIP	Postal code
SHIPTOSTATE	State or province. Character length and limitations: 120 single-byte alphanumeric characters Required for US addresses only.

TABLE A.31 **GetTransactionDetails Response Fields**

Parameter	Description
SHIPTOSTREET	First street address. Character length and limitations: 300 single-byte alphanumeric characters
SHIPTOSTREET2	Second street address. Character length and limitations: 300 single-byte alphanumeric characters
PARENTTRANSACTIONID	Original transaction to which this transaction is related. This field is populated for the following transaction types: ● Reversal ● Capture of an authorized transaction. ● Reauthorization of a transaction. ● Capture of an order. The value of `ParentTransactionID` is the original `OrderID`. ● Authorization of an order. The value of `ParentTransactionID` is the original `OrderID`. ● Capture of an order authorization. ● Void of an order. The value of `ParentTransactionID` is the original `OrderID`. Character length and limitations: 19 single-byte characters
TRANSACTIONID	PayPal transaction identification number Character length and limitations: 19 single-byte characters
RECEIPTID	Receipt ID Character length and limitations: 16 digits in `xxxx-xxxx-xxxx-xxxx` format
TRANSACTIONTYPE	The type of transaction `cart`: Transaction created by customer via the PayPal Shopping Cart feature. `send-money`: Transaction created by customer from the `Send Money` tab on the PayPal website. `web-accept`: Transaction created by customer via Buy Now, Donation, or Auction Smart Logos. `subscr-*`: Transaction created by customer via Subscription. `eot` means "end of subscription term." `merch-pmt`: preapproved payment. `mass-pay`: Transaction created via MassPay. `virtual-terminal`: Transaction created via merchant virtual terminal.
PAYMENTTYPE	Indicates whether the payment is instant or delayed. Character length and limitations: Seven single-byte characters
ORDERTIME	Date and time of payment
AMT	Full amount of the customer's payment, before transaction fee is subtracted
CURRENCYCODE	The currency for the transaction.
FEEAMT	Transaction fee associated with the payment

TABLE A.31 *GetTransactionDetails Response Fields*

Parameter	Description
SETTLEAMT	Amount deposited into the account's primary balance after a currency conversion from automatic conversion through your `Payment Receiving Preferences` or manual conversion through manually accepting a payment. This amount is calculated after fees and taxes have been assessed.
TAXAMT	Amount of tax for transaction
EXCHANGERATE	Exchange rate for transaction
PAYMENTSTATUS	Status of the payment. The status of the payment: • `None`: No status • `Canceled-Reversal`: This means a reversal has been canceled. For example, you won a dispute with the customer, and the funds for the transaction that was reversed have been returned to you. • `Completed`: The payment has been completed, and the funds have been added successfully to your account balance. • `Denied`: You denied the payment. This happens only if the payment was previously pending because of possible reasons described for the PendingReason element. • `Expired`: the authorization period for this payment has been reached. • `Failed`: The payment has failed. This happens only if the payment was made from your customer's bank account. • `Pending`: The payment is pending. See the `PendingReason` field for more information. • `Refunded`: You refunded the payment. • `Reversed`: A payment was reversed due to a chargeback or other type of reversal. The funds have been removed from your account balance and returned to the buyer. The reason for the reversal is specified in the `ReasonCode` element. • `Processed`: A payment has been accepted. • `Voided`: An authorization for this transaction has been voided.

TABLE A.31 GetTransactionDetails Response Fields

Parameter	Description
PENDINGREASON	**NOTE:** PendingReason is returned in the response only if PaymentStatus is Pending.
	The reason the payment is pending:
	• none: No pending reason
	• address: The payment is pending because your customer did not include a confirmed shipping address and your Payment Receiving Preferences is set such that you want to manually accept or deny each of these payments. To change your preference, go to the Preferences section of your Profile.
	• echeck: The payment is pending because it was made by an eCheck that has not yet cleared.
	• intl: The payment is pending because you hold a non-U.S. account and do not have a withdrawal mechanism. You must manually accept or deny this payment from your Account Overview.
	• multi-currency: You do not have a balance in the currency sent, and you do not have your Payment Receiving Preferences set to automatically convert and accept this payment. You must manually accept or deny this payment.
	• verify: The payment is pending because you are not yet verified. You must verify your account before you can accept this payment.
	• other: The payment is pending for a reason other than those listed above. For more information, contact PayPal Customer Service.
REASONCODE	The reason for a reversal if TransactionType is reversal:
	• none: No reason code
	• chargeback: A reversal has occurred on this transaction due to a chargeback by your customer.
	• guarantee: A reversal has occurred on this transaction due to your customer triggering a money-back guarantee.
	• buyer-complaint: A reversal has occurred on this transaction due to a complaint about the transaction from your customer.
	• refund: A reversal has occurred on this transaction because you have given the customer a refund.
	• other: A reversal has occurred on this transaction due to a reason not listed above.
INVNUM	Invoice number you set in the original transaction. Character length and limitations: 127 single-byte alphanumeric characters
CUSTOM	Custom field you set in the original transaction. Character length and limitations: 127 single-byte alphanumeric characters
NOTE	Memo entered by your customer in PayPal Website Payments note field. Character length and limitations: 255 single-byte alphanumeric characters
SALESTAX	Amount of tax charged on payment

TABLE A.31 *GetTransactionDetails Response Fields*

Parameter	Description
L_DESCn	Item name set by you or entered by the customer. If this was a shopping cart transaction, PayPal appends the number of the item to the HTML item_name variable. For example, item_name1, item_name2, and so forth. Character length and limitations: 127 single-byte alphanumeric characters These parameters are ordered sequentially beginning with 0 (for example, L_DESC0, L_DESC1).
L_NUMBERn	Item number set by you. If this was a shopping cart transaction, PayPal appends the number of the item to the HTML item_number variable. For example, item_number1, item_number2, and so forth. Character length and limitations: 127 single-byte alphanumeric characters These parameters are ordered sequentially beginning with 0 (for example, L_NUMBER0, L_NUMBER1).
L_QTYn	Quantity set by you or entered by the customer. Character length and limitations: no limit These parameters are ordered sequentially beginning with 0 (for example, L_QTY0, L_QTY1).
L_AMTn	Cost of item These parameters are ordered sequentially beginning with 0 (for example, L_AMT0, L_AMT1).
L_OPTIONSNAMEn	PayPal option names for an item in the shopping cart; each name corresponds to an option value. There can be multiple option names per item. The option names are ordered sequentially beginning with 0 (for example, L_OPTIONSNAMES0, L_OPTIONSNAME1).
L_OPTIONSVALUEn	PayPal option values corresponding to option names of an item in the shopping cart. The option names are ordered sequentially beginning with 0 (for example, L_OPTIONSVALUE0, L_OPTIONSVALUE1).
SUBSCRIPTIONID	ID generated by PayPal for the subscriber. Character length and limitations: no limit
SUBSCRIPTIONDATE	Subscription start date
EFFECTIVEDATE	Date when the subscription modification will be effective
RETRYTIME	Date PayPal will retry a failed subscription payment.
USERNAME	Username generated by PayPal and given to subscriber to access the subscription. Character length and limitations: 64 alphanumeric single-byte characters
PASSWORD	Password generated by PayPal and given to subscriber to access the subscription. For security, the value of the password is hashed. Character length and limitations: 128 alphanumeric single-byte characters
RECURRENCES	The number of payment installments that will occur at the regular rate. Character length and limitations: no limit

TABLE A.31 *GetTransactionDetails Response Fields*

Parameter	Description
REATTEMPT	Indicates whether reattempts should occur upon payment failures
RECURRING	Indicates whether regular rate recurs. 1 = Yes
PERIOD	The period of time that the subscriber will be charged. Character length and limitations: no limit
BUYERID	Customer's auction ID
CLOSINGDATE	Auction's close date
MULTIITEM	Counter used for multi-item auction payments

Mass Payment

MassPay Request

TABLE A.32 *MassPay Parameters*

Parameter	Description	Required?
METHOD	Name of the API: MassPay	Yes
RECEIVERTYPE	Indicates how you identify the recipients of payments in all the individual mass payment items: • EmailAddress (L_EMAIL*n* in the individual item) • UserID (L_RECEIVERID_*n* in the individual item).	Yes
L_AMTn	Payment amount.	Yes
CURRENCYCODE	A three-character currency code for one of the currencies listed in [PayPal-Supported Transactional Currencies](). Default: USD.	Yes
L_EMAILn	Email address of recipient. This field is required if RECEIVERTYPE is EmailAddress. **NOTE:** You must specify either L_EMAILn or L_RECEIVERIDn, but you can not mix them. Use only one or the other, but not both, in a single request. Character length and limitations: 127 single-byte characters maximum. These parameters must be ordered sequentially beginning with 0 (for example L_EMAIL0, L_EMAIL1).	See description

TABLE A.32 MassPay Parameters

Parameter	Description	Required?
L_RECEIVERIDn	Unique PayPal customer account number. This value corresponds to the value of PAYERID returned by GetTransactionDetails. This field is required if RECEIVERTYPE is UserID. These parameters must be ordered sequentially beginning with 0 (for example L_RECEIVERID0, L_RECEIVER1).	See description
L_UNIQUEIDn	Transaction-specific identification number for tracking in an accounting system. Character length and limitations: 30 single-byte characters. No whitespace allowed. These parameters must be ordered sequentially beginning with 0 (for example L_UNIQUEID0, L_UNIQUEID1).	No
L_NOTEn	Custom note for each recipient. Character length and limitations: 4,000 single-byte alphanumeric characters These parameters must be ordered sequentially beginning with 0 (for example L_NOTE0, L_NOTE1).	No
EMAILSUBJECT	The subject line of the email that PayPal sends when the transaction is completed. The subject line is the same for all recipients. Character length and limitations: 255 single-byte alphanumeric characters	No

MassPay Response

The fields in the response are the standard response header fields. See "Response Format" on page 17.

Recurring Payments and Reference Transactions

IMPORTANT: To use recurring payments, you must set the VERSION parameter to **50.0** or higher in your NVP API calls.

CreateRecurringPaymentsProfile

CreateRecurringPaymentsProfile Request

The CreateRecurringPaymentsProfileRequest message consists of the fields identified in Table A.33.

TABLE A.33 CreateRecurringPaymentsProfile Request

Name	Description/Data Type	Required
METHOD	Name of API: CreateRecurringPaymentsProfile	Yes
TOKEN	A timestamped token, the value of which was returned in the response to the first call to SetExpressCheckout. You can also use the token returned in the SetCustomerBillingAgreement response. ● Only one recurring payment profile is allowed for each CreateRecurringPaymentsProfile request. ● The same token may be used by multiple CreateRecurringPaymentsProfile calls to set up multiple recurring payment profiles. The maximum number of recurring payments profiles must not exceed the number of billing agreement details passed as part of the SetExpressCheckout request. This field is required if you are using recurring payments with Express Checkout. **NOTE:** The CreateRecurringPaymentsProfile request must include either TOKEN or the required credit card information listed in . **NOTE:** Tokens expire after approximately 3 hours.	See description
Credit Card Details (See Table A.34, "Credit Card Fields for Recurring Payments with Direct Payments," on page 98)	Credit card details for recurring payments with direct payments. Credit card details are required for using recurring payments with direct payments. See Table A.34, "Credit Card Fields for Recurring Payments with Direct Payments," on page 98. **NOTE:** The CreateRecurringPaymentsProfile request must include either TOKEN or the required credit card information listed in Table A.34, "Credit Card Fields for Recurring Payments with Direct Payments," on page 98.	See description

TABLE A.33 *CreateRecurringPaymentsProfile Request*

Name	Description/Data Type	Required
SUBSCRIBERNAME	Full name of the person receiving the product or service paid for by the recurring payment. If not present, the name in the buyer's PayPal account is used. Character length and limitations: 32 single-byte characters	No
Ship To Address (See Table A.11, "Ship to Address (Optional)," on page 64)	The subscriber's shipping address associated with this profile, if applicable. If not specified, the ship to address from buyer's PayPal account is used. See Table A.11, "Ship to Address (Optional)," on page 64 for address details. **NOTE:** Shipping Address is optional, but if you include it, certain fields are required.	No
PROFILESTARTDATE	The date when billing for this profile begins. Must be a valid date, in UTC/GMT format. **NOTE:** The profile may take up to 24 hours for activation.	Yes
PROFILEREFERENCE	The merchant's own unique reference or invoice number. Character length and limitations: 127 single-byte alphanumeric characters	No
DESC	Description of the recurring payment. **NOTE:** This field must match the corresponding billing agreement description included in the SetExpressCheckout request. Character length and limitations: 127 single-byte alphanumeric characters	No
TRIALBILLINGPERIOD	Unit for billing during the trial period. One of the following values: ● Day ● Week ● SemiMonth ● Month ● Year If you create a trial period, TRIALBILLINGPERIOD is required. Otherwise, it is optional. You can create only one trial period per profile. **NOTE:** The combination of TRIALBILLINGPERIOD and TRIALBILLINGFREQUENCY cannot exceed one year.	See description
TRIALBILLING FREQUENCY	Number of billing periods that make up one billing cycle. **NOTE:** The combination of billing period and billing frequency cannot exceed one year. **NOTE:** If the billing period is SemiMonth. the billing frequency must be 1.	See description

TABLE A.33 CreateRecurringPaymentsProfile Request

Name	Description/Data Type	Required
TRIALTOTALBILLING CYCLES	The total number of billing cycles in this trial period, which must be greater than 0. The trial period will start on the BILLINGSTARTDATE and continue at the TRIALBILLINGFREQUENCY for TRIALTOTALBILLINGCYCLES cycles. If you create a trial period, TRIALTOTALBILLINGCYCLES is required. Otherwise, it is optional.	See description
TRIALAMT	Billing amount for each billing cycle during the trial period, not including shipping and tax amounts. If you create a trial period, TRIALAMT is required. Otherwise, it is optional. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	See description
TRIALSHIPPINGAMT	Shipping amount for each billing cycle during the trial period. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
TRIALTAXAMT	Tax amount for each billing cycle during the trial period. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
BILLINGPERIOD	The unit of measure for the billing cycle. Must be one of: • Day • Week • SemiMonth • Month • Year For SemiMonth, billing is done on the 1st and 15th of each month.	Yes
BILLINGFREQUENCY	Number of billing periods that make up one billing cycle. The combination of billing frequency and billing period must be less than or equal to one year. For example, if the billing cycle is Month, the maximum value for billing frequency is 12. Similarly, if the billing cycle is Week, the maximum value for billing frequency is 52. **NOTE:** If the billing period is SemiMonth., the billing frequency must be 1.	Yes

TABLE A.33 *CreateRecurringPaymentsProfile Request*

Name	Description/Data Type	Required
TOTALBILLINGCYCLES	The number of billing cycles in the regular payment period. ● If no value is specified or the value is 0, the regular payment period continues until the profile is cancelled or suspended. ● If the value is greater than 0, the regular payment period starts after the trial period is finished and continues at the billing frequency for the specified number of cycles.	No
AMT	Billing amount for each billing cycle during the regular payment period, not including shipping and tax amounts. **NOTE:** All amounts in the CreateRecurringPaymentsProfile request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	Yes
CURRENCYCODE	A three-character currency code for one of the currencies listed in <u>PayPal-Supported Transactional Currencies</u>. Default: USD.	No
SHIPPINGAMT	Shipping amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
TAXAMT	Tax amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
MAXFAILEDPAYMENTS	The number of scheduled payments that can fail before the profile is automatically suspended. An IPN message is sent to the merchant when the specified number of failed payments is reached. Character length and limitations: Number string representing an integer	No
AUTOBILLOUTAMT	This field indicates whether you would like PayPal to automatically bill the outstanding balance amount in the next billing cycle. The outstanding balance is the total amount of any previously failed payments. Valid values: Must be NoAutoBill or AddToNextBilling	No

TABLE A.33 *CreateRecurringPaymentsProfile Request*

Name	Description/Data Type	Required
INITAMT	Initial non-recurring payment amount due immediately upon profile creation. Use an initial amount for enrolment or set-up fees. **NOTE:** All amounts in the `CreateRecurringPaymentsProfile` request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
FAILEDINITAMTACTION	By default, PayPal will suspend the pending profile in the event that the initial payment amount fails. You can override this default behavior by setting this field to `ContinueOnFailure`, which indicates that if the initial payment amount fails, PayPal should add the failed payment amount to the outstanding balance for this recurring payment profile. When this flag is set to `ContinueOnFailure`, a success code will be returned to the merchant in the `CreateRecurringPaymentsProfile` response and the recurring payments profile will be activated for scheduled billing immediately. You should check your IPN messages or PayPal account for updates of the payment status. If this field is not set or is set to `CancelOnFailure`, PayPal will create the recurring payment profile, but will place it into a pending status until the initial payment is completed. If the initial payment clears, PayPal will notify you by IPN that the pending profile has been activated. If the payment fails, PayPal will notify you by IPN that the pending profile has been cancelled. Character length and limitations: `ContinueOnFailure` or `CancelOnFailure`	No

The following fields are used only for recurring payments with direct payments.

TABLE A.34 *Credit Card Fields for Recurring Payments with Direct Payments*

Name	Description / Data Type	Required?
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. This field is required if you are using recurring payments with direct payments. Allowable values: • Visa • MasterCard • Discover • Amex • Switch • Solo	See description
ACCT	Credit card number Character length and limitations: numeric characters only. No spaces or punctutation. Must conform with modulo and length required by each credit card type. This field is required if you are using recurring payments with direct payments. **NOTE:** You must include either the TOKEN or ACCT fields with the CreateRecurringPaymentsProfile request. If you specify both, an error is returned.	See description
EXPDATE	Credit card expiration date. This field is required if you are using recurring payments with direct payments. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	See description
CARDVERIFICATION VALUE	Card Verification Value, version 2. **NOTE:** Your Merchant Account settings determine whether this field is required. Character length for Visa, MasterCard, and Discover: exactly three digits. Character length for American Express: exactly four digits. **IMPORTANT:** To comply with credit card processing regulations, once a transaction has been completed, you must not store the value of CVV2.	See description

TABLE A.34 Credit Card Fields for Recurring Payments with Direct Payments

Name	Description / Data Type	Required?
ISSUEDATE	Month and year that Switch or Solo card was issued. This field is required if the credit card type is Switch or Solo. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	See description
ISSUENUMBER	Issue number of Switch or Solo card. Character length: two numeric digits maximum.	No
FIRSTNAME	Payer's first name. This field is required if you are using recurring payments with direct payments. Character length and limitations: 25 single-byte characters	See description
LASTNAME	This field is required if you are using recurring payments with direct payments. Payer's last name. Character length and limitations: 25 single-byte characters	See description
STREET1	First street address. Character length and limitations: 100 single-byte characters	No
STREET2	Second street address. Character length and limitations: 100 single-byte characters	No
CITY	Name of city. Character length and limitations: 40 single-byte characters	No
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53."	No
COUNTRY	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."	No
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	No

CreateRecurringPaymentsProfile Response

TABLE A.35 CreateRecurringPaymentsProfile Response

Field	Description
PROFILEID	A unique identifier for future reference to the details of this recurring payment. Character length and limitations: Up to 14 single-byte alphanumeric characters
STATUS	Status of the recurring payment profile. ● ActiveProfile - The recurring payment profile has been successfully created and activated for scheduled payments according the billing instructions from the recurring payments profile. ● PendingProfile - The system is in the process of creating the recurring payment profile. Please check your IPN messages for an update. For more information on status and initial amounts, see the FailedInitialAmountAction field on page 97.

GetRecurringPaymentsProfileDetails

GetRecurringPaymentsProfileDetails Request

TABLE A.36 GetRecurringPaymentsProfileDetails Request

Field	Description	Required?
PROFILEID	Recurring payments profile ID returned in the CreateRecurringPaymentsProfile response. Character length and limitations: 14 single-byte alphanumeric characters. 19 character profile IDs are supported for compatability with previous versions of the PayPal API.	Yes

GetRecurringPaymentsProfileDetails Response

TABLE A.37 GetRecurringPaymentsProfileDetails Response

Field	Description
PROFILEID	Recurring payments profile ID returned in the CreateRecurringPaymentsProfile response.

TABLE A.37 GetRecurringPaymentsProfileDetails Response

Field	Description
STATUS	Status of the recurring payment profile. • `ActiveProfile` • `PendingProfile` • `CancelledProfile` • `SuspendedProfile` • `ExpiredProfile`
DESC	Description of the recurring payment. Character length and limitations: 127 single-byte alphanumeric characters
AUTOBILLOUTAMT	This field indicates whether you would like PayPal to automatically bill the outstanding balance amount in the next billing cycle. Valid values: `NoAutoBill` or `AddToNextBilling`
MAXFAILEDPAYMENTS	The number of scheduled payments that can fail before the profile is automatically suspended. An IPN message is sent to the merchant when the specified number of failed payments is reached. Character length and limitations: Number string representing an integer
SUBSCRIBERNAME	Full name of the person receiving the product or service paid for by the recurring payment. If not present, the name in the buyer's PayPal account is used. Character length and limitations: 32 single-byte characters
Ship To Address (See Table A.11, "Ship to Address (Optional)," on page 64)	The buyer's shipping address. See Table A.11, "Ship to Address (Optional)," on page 64 for address details.
PROFILESTARTDATE	The date when billing for this profile began, in YYYY-MM-DD format.
PROFILEREFERENCE	The merchant's own unique reference or invoice number. Character length and limitations: 127 single-byte alphanumeric characters
BILLINGPERIOD	The unit of measure for the billing cycle. Must be one of: • `Day` • `Week` • `SemiMonth` • `Month` • `Year` **NOTE:** This field is not returned if the profile is cancelled or expired.
BILLINGFREQUENCY	Number of billing periods that make up one billing cycle. **NOTE:** This field is not returned if the profile is cancelled or expired.
TOTALBILLINGCYCLES	The number of billing cycles in the regular payment period. **NOTE:** This field is not returned if the profile is cancelled or expired.

TABLE A.37 **GetRecurringPaymentsProfileDetails Response**

Field	Description
AMT	Billing amount for each billing cycle during the regular payment period, not including shipping and tax amounts. **NOTE:** All amounts in the CreateRecurringPaymentsProfile request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** This field is not returned if the profile is cancelled or expired.
SHIPPINGAMT	Shipping amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** This field is not returned if the profile is cancelled or expired.
TAXAMT	Tax amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** This field is not returned if the profile is cancelled or expired.
NEXTBILLINGDATE	The next scheduled billing date, in YYYY-MM-DD format.
NUMCYCLESCOMPLETED	The number of billing cycles completed in the current active subscription period. A billing cycle is considered completed when payment is collected or after retry attempts to collect payment for the current billing cycle have failed.
NUMCYCLESREMAINING	The number of billing cycles remaining in the current active subscription period.
OUTSTANDINGBALANCE	The current past due or outstanding balance for this profile. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
FAILEDPAYMENTCOUNT	The total number of failed billing cycles for this profile.
LASTPAYMENTDATE	The date of the last successful payment received for this profile, in YYYY-MM-DD format.

TABLE A.37 *GetRecurringPaymentsProfileDetails Response*

Field	Description
LASTPAYMENTAMT	The amount of the last successful payment received for this profile. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
AGGREGATEAMT	Total amount collected thus far for scheduled payments. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
AGGREGATEOPTIONALAMT	Total amount collected thus far for optional payments. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
FINALPAYMENTDUEDATE	The final scheduled payment date before the profile expires.
Credit Card Details (see Table A.38, "Credit Card Details for GetRecurringPaymentsProfileDetails")	Credit card details for this recurring payments profile. **NOTE:** Credit card details are returned only for recurring payments with direct payment. See Table A.38, "Credit Card Details for GetRecurringPaymentsProfileDetails."

TABLE A.38 *Credit Card Details for GetRecurringPaymentsProfileDetails*

Field	Description
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. Allowable values: ● Visa ● MasterCard ● Discover ● Amex ● Switch ● Solo
ACCT	The last four digits of the credit card account number. Character length and limitations: numeric characters only. No spaces or punctutation.

TABLE A.38 *Credit Card Details for GetRecurringPaymentsProfileDetails*

Field	Description
EXPDATE	Credit card expiration date. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.
ISSUEDATE	Month and year that Switch or Solo card was issued. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.
ISSUENUMBER	Issue number of Switch or Solo card. Character length: two numeric digits maximum.
FIRSTNAME	Payer's first name. Character length and limitations: 25 single-byte characters
LASTNAME	Payer's last name. Character length and limitations: 25 single-byte characters
STREET1	First street address. Character length and limitations: 100 single-byte characters
STREET2	Second street address. Character length and limitations: 100 single-byte characters
CITY	Name of city. Character length and limitations: 40 single-byte characters
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53."
COUNTRY	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters

ManageRecurringPaymentsProfileStatus

ManageRecurringPaymentsProfileStatus Request

TABLE A.39 ManageRecurringPaymentsProfileStatus Request

Field	Description	Required?
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. Character length and limitations: 14 single-byte alphanumeric characters. 19 character profile IDs are supported for compatability with previous versions of the PayPal API.	Yes
ACTION	The action to be performed to the recurring payments profile. Must be one of the following: ● `Cancel` - Only profiles in Active or Suspended state can be cancelled. ● `Suspend` - Only profiles in Active state can be suspended. ● `Reactivate` - Only profiles in Suspended state can be reactivated.	Yes
NOTE	The reason for the change in status. For profiles created using Express Checkout, this message will be included in the email notification to the buyer when the status of the profile is successfully changed, and can also be seen by both you and the buyer on the Status History page of the PayPal account.	No

ManageRecurringPaymentsProfileStatus Response

TABLE A.40 ManageRecurringPaymentsProfileStatus Response

Field	Description
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. For each action, an error is returned if the recurring payments profile has a status that is not compatible with the action. Errors are returned in the following cases: ● `Cancel` - Profile status is not Active or Suspended ● `Suspend` - Profile status is not Active ● `Reactivate` - Profile status is not Suspended

BillOutstandingAmount

NOTE: If you call `BillOutstandingAmount` within 24 hours of a regularly scheduled payment, an error is returned.

BillOutstandingAmount Request

TABLE A.41 *BillOutstandingAmount Request*

Field	Description	Required?
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. **NOTE:** The profile must have a status of either `Active` or `Suspended`. Character length and limitations: 14 single-byte alphanumeric characters. 19 character profile IDs are supported for compatability with previous versions of the PayPal API.	Yes
AMT	The amount to bill. The amount must be less than or equal to the current outstanding balance of the profile. If no value is specified, PayPal will attempt to bill the entire outstanding balance amount. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
NOTE	The reason for the non-scheduled payment. For profiles created using Express Checkout, this message will be included in the email notification to the buyer for the non-scheduled payment transaction, and can also be seen by both you and the buyer on the Status History page of the PayPal account.	No

BillOutstandingAmount Response

TABLE A.42 *BillOutstandingAmount Response*

Field	Description
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. An error is returned if the profile specified in the BillOutstandingAmount request has a status of cancelled or expired.

UpdateRecurringPaymentsProfile

NOTE: For recurring payments profiles created using Express Checkout, an error may be returned if you call `UpdateRecurringPaymentsProfile` within 72 hours of a regularly scheduled payment.

UpdateRecurringPaymentsProfile Request

TABLE A.43 UpdateRecurringPaymentsProfile Request

Field	Description	Required?
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. Character length and limitations: 14 single-byte alphanumeric characters. 19 character profile IDs are supported for compatability with previous versions of the PayPal API.	Yes
NOTE	The reason for the update to the recurring payments profile. This message will be included in the email notification to the buyer for the recurring payments profile update. This note can be seen by you on the Status History page of the PayPal account. For recurring payments profiles created using Express Checkout, the buyer can also see the note from their PayPal account.	No
DESC	Description of the recurring payment. Character length and limitations: 127 single-byte alphanumeric characters	No
SUBSCRIBERNAME	Full name of the person receiving the product or service paid for by the recurring payment. If not present, the name in the buyer's PayPal account is used. Character length and limitations: 32 single-byte characters	No
Ship To Address (See Table A.11, "Ship to Address (Optional)," on page 64)	The subscriber's shipping address associated with this profile, if applicable. If not specified, the ship to address from buyer's PayPal account is used. See Table A.11, "Ship to Address (Optional)," on page 64 for address details. **IMPORTANT:** Shipping Address is optional, but if you update any of the address fields, you must enter all of them. For example, if you want to update the subsriber's street address, you must specify all of the fields listed in Table A.11, "Ship to Address (Optional)," on page 64, not just the field for the street address.	No
PROFILEREFERENCE	The merchant's own unique reference or invoice number. Character length and limitations: 127 single-byte alphanumeric characters	No
ADDITIONALBILLING CYCLES	The number of additional billing cycles to add to this profile.	No

TABLE A.43 *UpdateRecurringPaymentsProfile Request*

Field	Description	Required?
AMT	Billing amount for each cycle in the subscription period, not including shipping and tax amounts. **NOTE:** For recurring payments with Express Checkout, the payment amount can be increased by no more than 20% every 180 days (starting when the profile is created). Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
SHIPPINGAMT	Shipping amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
TAXAMT	Tax amount for each billing cycle during the regular payment period. **NOTE:** All amounts in the request must have the same currency. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
OUTSTANDINGAMT	The current past due or outstanding amount for this profile. You can only decrease the outstanding amount—it cannot be increased. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.	No
AUTOBILLOUTAMT	This field indicates whether you would like PayPal to automatically bill the outstanding balance amount in the next billing cycle. Valid values: Must be `NoAutoBill` or `AddToNextBilling`	No
MAXFAILEDPAYMENTS	The number of failed payments allowed before the profile is automatically suspended. The specified value cannot be less than the current number of failed payments for this profile. An IPN message is sent to the merchant when the specified number of failed payments is reached. Character length and limitations:Number string representing an integer	No

TABLE A.43 UpdateRecurringPaymentsProfile Request

Field	Description	Required?
Credit card details (see Table A.44, "Credit Card Details for UpdateRecurringPaymentsProfile request")	Credit card details to be updated. **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them. For example, if you want to update the street address, you must specify all of the fields listed in Table A.44, "Credit Card Details for UpdateRecurringPaymentsProfile request," on page 109, not just the field for the street address. See Table A.44, "Credit Card Details for UpdateRecurringPaymentsProfile request."	See description

TABLE A.44 Credit Card Details for UpdateRecurringPaymentsProfile request

Field	Description	Required?
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. If you are updating credit card information, this field is required. Allowable values: ● Visa ● MasterCard ● Discover ● Amex ● Switch ● Solo	See description
ACCT	Credit card number Character length and limitations: numeric characters only. No spaces or punctutation. Must conform with modulo and length required by each credit card type.	See description
EXPDATE	Credit card expiration date. If you are updating credit card information, this field is required. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	See description

TABLE A.44 Credit Card Details for UpdateRecurringPaymentsProfile request

Field	Description	Required?
CARDVERIFICATION VALUE	Card Verification Value, version 2. **NOTE:** Your Merchant Account settings determine whether this field is required. Character length for Visa, MasterCard, and Discover: exactly three digits. Character length for American Express: exactly four digits. **IMPORTANT:** To comply with credit card processing regulations, once a transaction has been completed, you must not store the value of CVV2.	See description
ISSUEDATE	Month and year that Switch or Solo card was issued. This field is required if credit card type is Switch or Solo and is included in the `UpdateRecurringPaymentsProfile` request. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	See description
ISSUENUMBER	Issue number of Switch or Solo card. Character length: two numeric digits maximum.	No
FIRSTNAME	Payer's first name. If you are updating credit card information, this field is required. Character length and limitations: 25 single-byte characters	See description
LASTNAME	If you are updating credit card information, this field is required. Payer's last name. Character length and limitations: 25 single-byte characters	See description
STREET1	First street address. Character length and limitations: 100 single-byte characters **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description
STREET2	Second street address. Character length and limitations: 100 single-byte characters **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description
CITY	Name of city. Character length and limitations: 40 single-byte characters **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description

TABLE A.44 Credit Card Details for UpdateRecurringPaymentsProfile request

Field	Description	Required?
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53." **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description
COUNTRY	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes." **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters **IMPORTANT:** Credit card billing address is optional, but if you update any of the address fields, you must enter all of them.	See description

UpdateRecurringPaymentsProfile Response

TABLE A.45 UpdateRecurringPaymentsProfile Response

Field	Description
PROFILEID	Recurring payments profile ID returned in the `CreateRecurringPaymentsProfile` response. An error is returned if the profile specified in the BillOutstandingAmount request has a status of cancelled or expired.

SetCustomerBillingAgreement

SetCustomerBillingAgreementRequest

The `SetCustomerBillingAgreementRequest` message consists of the fields identified in Table A.46.

TABLE A.46 SetCustomerBillingAgreementRequest Fields

Name	Description/Data Type	Required
METHOD	Name of API: `SetCustomerBillingAgreement`	Yes

TABLE A.46 **SetCustomerBillingAgreementRequest Fields** *(Continued)*

Name	Description/Data Type	Required
BILLINGTYPE	Type of billing agreement. For reference transactions, this field must be MerchantInitiatedBilling, which requests PayPal to prompt the buyer to set up a billing agreement for recurring payments. For recurring payments, the value must be RecurringPayments **NOTE:** Other defined values are not valid.	Yes
BILLINGAGREEMENT DESCRIPTION	Description of goods or services associated with the billing agreement.	No
BILLINGAGREEMENT CUSTOM	Custom annotation field for your own use.	No
PAYMENTTYPE	Specifies type of PayPal payment you require for the billing agreement.	No
RETURNURL	URL to which the customer's browser is returned after choosing to pay with PayPal. **NOTE:** PayPal recommends that the value be the final review page on which the customer confirms the billing agreement. Character length and limitations: no limit.	Yes
CANCELURL	URL to which the customer is returned if he does not approve the use of PayPal to pay you. **NOTE:** PayPal recommends that the value be the original page on which the customer chose to pay with PayPal or establish a billing agreement. Character length and limitations: no limit	Yes

TABLE A.46 **SetCustomerBillingAgreementRequest Fields** *(Continued)*

Name	Description/Data Type	Required
LOCALECODE	Locale of pages displayed by PayPal during checkout. Character length and limitations: Any two-character country code. The following two-character country codes are supported by PayPal: ● AT ● AU ● BE ● CA ● CH ● CN ● DE ● ES ● FR ● GB ● IT ● NL ● PL ● US Any other value will default to US. **NOTE:** For recurring payments, the locale must be US. **NOTE:** For the list of country codes, see Appendix G, "Country Codes."	No
PAGESTYLE	Sets the Custom Payment Page Style for payment pages associated with this button/link. This value corresponds to the HTML variable page_style for customizing payment pages. The value is the same as the Page Style Name you chose when adding or editing the page style from the Profile subtab of the My Account tab of your PayPal account. Character length and limitations: 30 single-byte alphabetic characters.	No
HDRIMG	A URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high. PayPal recommends that you provide an image that is stored on a secure (https) server. Character length and limitations: 127 single-byte alphanumeric characters	No
HDRBORDERCOLOR	Sets the border color around the header of the payment page. The border is a 2-pixel perimeter around the header space, which is 750 pixels wide by 90 pixels high. Character length and limitations: Six character HTML hexadecimal color code in ASCII	No

TABLE A.46 *SetCustomerBillingAgreementRequest Fields* (Continued)

Name	Description/Data Type	Required
HDRBACKCOLOR	Sets the background color for the header of the payment page. By default, the color is white. Character length and limitation: Six character HTML hexadecimal color code in ASCII	No
PAYFLOWCOLOR	Sets the background color for the payment page. Character length and limitation: Six character HTML hexadecimal color code in ASCII	No
EMAIL	Email address of the buyer as entered during checkout. PayPal uses this value to pre-fill the PayPal membership sign-up portion of the PayPal login page. Character length and limit: 127 single-byte alphanumeric characters	No

SetCustomerBillingAgreementResponse

The `SetCustomerBillingAgreementResponse` message consists of the fields identified in Table A.47

TABLE A.47 *SetCustomerBillingAgreementResponse Fields*

Element	Description/Data Type
TOKEN	A unique time-stamped token, which uniquely identifies this transaction for subsequent API calls. **NOTE:** The token expires after three hours. Character length and limitations: 20 single-byte characters

GetBillingAgreementCustomerDetails

GetBillingAgreementCustomerDetails Request

The `GetBillingAgreementCustomerDetailsRequest` message consists of the fields identified in Table A.48.

TABLE A.48 *GetBillingAgreementCustomerDetailsRequest Fields*

Element	Description/Data Type	Required
METHOD	Name of API: `GetBillingAgreementCustomerDetails`	Yes
TOKEN	The time-stamped token returned in the `SetCustomerBillingAgreement` response. **NOTE:** The token expires after three hours. Character length and limitations: 20 single-byte characters	Yes

GetBillingAgreementCustomerDetails Response

The `GetBillingAgreementCustomerDetailsResponse` message consists of the fields identified in Table A.49

TABLE A.49 GetBillingAgreementCustomerDetailsResponse Fields

Element	Description/Data Type
EMAIL	Email address of payer Character length and limitations: 127 single-byte characters
PAYERID	Unique customer ID. Character length and limitations: 13 single-byte alphanumeric characters.

PAYERSTATUS	Status of payer's email address:
	`Verified`
	`Unverified`

SALUTATION	Payer's salutation Character length and limitations: 20 single-byte characters
FIRSTNAME	Payer's first name Character length and limitations: 25 single-byte characters
MIDDLENAME	Payer's middle name Character length and limitations: 25 single-byte characters
LASTNAME	Payer's last name Character length and limitations: 25 single-byte characters
SUFFIX	Payer's suffix Character length and limitations: 12 single-byte characters
SHIPTOCOUNTRYCODE	Payment sender's country of residence using standard two-character ISO 3166 country codes. Character length and limitations: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."
PAYERBUSINESS	Payer's business name. Character length and limitations: 127 single-byte characters
PHONENUM	Payer's contact telephone number. **NOTE:** PayPal returns a contact telephone number only if your Merchant account profile settings require that the buyer enter one. Character length and limitations: Field mask is XXX-XXX-XXXX (for US numbers) or +XXX XXXXXXXX (for international numbers)
Ship To Address	See Table A.11, "Ship to Address (Optional)," on page 64.

DoReferenceTransaction

DoReferenceTransaction Request

TABLE A.50 *DoReferenceTransactionRequest Fields*

NVP Name	Data Type/Description	Required
METHOD	Name of API: DoReferenceTransaction	Yes
REFERENCEID	Create a new transaction based on: • Billing agreement ID • Transaction ID • Preapproved payments ID • Reference ID	Yes
PAYMENTACTION	How you want to obtain payment: • Authorization indicates that this payment is a basic authorization subject to settlement with PayPal Authorization & Capture. • Sale indicates that this is a final sale for which you are requesting payment.	Yes
AMT	Total of order, including shipping, handling, and tax. **NOTE:** Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). **NOTE:** You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies.	Yes
ITEMAMT	Sum of cost of all items in this order. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	No
SHIPPINGAMT	Total shipping costs for this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies.	No

TABLE A.50 ***DoReferenceTransactionRequest Fields*** *(Continued)*

NVP Name	Data Type/Description	Required
HANDLINGAMT	Total handling costs for this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies.	No
TAXAMT	Sum of tax for all items in this order. **NOTE:** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD. **NOTE:** You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies. Currency code must be set the same as for AMT.	No
DESC	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	No
CUSTOM	A free-form field for your own use. Character length and limitations: 256 single-byte alphanumeric characters	No
INVNUM	Your own invoice or tracking number. Character length and limitations: 127 single-byte alphanumeric characters	No
BUTTON SOURCE	An identification code for use by third-party applications to identify transactions. Character length and limitations: 32 single-byte alphanumeric characters	No

TABLE A.50 *DoReferenceTransactionRequest Fields* *(Continued)*

NVP Name	Data Type/Description	Required
NOTIFYURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction. **IMPORTANT:** If you do not specify this value in the request, the notification URL from your Merchant Profile is used, if one exists. Character length and limitations: 2,048 single-byte alphanumeric characters	No
SHIPTONAME	Person's name associated with this address. Character length and limitations: 32 single-byte characters	Yes
SHIPTOSTREET	First street address. Character length and limitations: 100 single-byte characters	Yes
SHIPTOCITY	Name of city. Character length and limitations: 40 single-byte characters	Yes
SHIPTOSTATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53." Required for US addresses only.	No
SHIPTOZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	Yes
SHIPTOCOUNTRYCODE	Country code. Character limit: Two single-byte characters For the list of country codes, see Appendix G, "Country Codes."	Yes
SHIPTOSTREET2	Second street address. Character length and limitations: 100 single-byte characters	No
SHIPTOPHONENUM	Phone number. Character length and limit: 20 single-byte characters	No
L_DESCn	Item name. Character length and limitations: 127 single-byte characters	No

*T ABLE **A.50** DoReferenceTransactionRequest Fields (Continued)*

NVP Name	Data Type/Description	Required
L_AMTn	Cost of item **N OTE :** Character length and limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Equivalent to nine characters maximum for USD. **N OTE :** You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies.	No
L_NUMBERn	Item number. Character length and limitations: 127 single-byte characters	No
L_QTYn	Item quantity. Character length and limitations: Any positive integer	No
L_TAXAMTn	Item sales tax. Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). Currency code is set the same as for OrderTotal.	No

TABLE A.50 *DoReferenceTransactionRequest Fields (Continued)*

NVP Name	Data Type/Description	Required
SOFTDESCRIPTOR	The soft descriptor is a per transaction description of the payment that is passed to the consumer's credit card statement.	No
	If a value for the soft descriptor field is provided, the full descriptor displayed on the customer's statement has the following format:	
	`<PP *	PAYPAL *><Merchant descriptor as set in the Payment Receiving Preferences><1 space><soft descriptor>`	
	The soft descriptor can contain only the following characters:	
	• Alphanumeric characters	
	• - (dash)	
	• * (asterisk)	
	• . (period)	
	• {space}	
	If you use any other characters (such as ","), an error code is returned.	
	The soft descriptor does not include the phone number, which can be toggled between the merchant's customer service number and PayPal's customer service number.	
	The maximum length of the total soft descriptor is 22 characters. Of this, either 4 or 8 characters are used by the PayPal prefix shown in the data format. Thus, the maximum length of the soft descriptor passed in the API request is:	
	`22 - len(<PP * | PAYPAL *>) - len(<Descriptor set in Payment Receiving Preferences> + 1)`	
	For example, assume the following conditions:	
	• The PayPal prefix toggle is set to PAYPAL * in PayPal's admin tools	
	• The merchant descriptor set in the Payment Receiving Preferences is set to EBAY.	
	• The soft descriptor is passed in as JanesFlowerGifts LLC	
	The resulting descriptor string on the credit card would be:	
	`PAYPAL *EBAY JanesFlow`	
RETURNFMFDETAILS	Flag to indicate whether you want the results returned by Fraud Management Filters. By default, you do not receive this information.	No
	• 0 - do not receive FMF details (default)	
	• 1 - receive FMF details	

The following fields are valid only for direct credit card reference transactions.

TABLE A.51 Additional Fields for Direct Credit Card Reference Transactions

NVP Name	Data Type/Description	Required
IPADDRESS	IP address of the payer's browser. **IMPORTANT:** PayPal records this IP addresses as a means to detect possible fraud. Character length and limitations: 15 single-byte characters, including periods, for example: `255.255.255.255`.	No
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. The credit card can be one of the following values: ● Visa ● MasterCard ● Discover ● Amex ● Switch ● Solo	Yes
ACCT	Credit card number Character length and limitations: numeric characters only. No spaces or punctutation. Must conform with modulo and length required by each credit card type.	Yes
EXPDATE	Credit card expiration date. Format: MMYYYY Character length and limitations: Six single-byte numeric characters, including leading zero.	Yes
CVV2	Card Verification Value, version 2. **NOTE:** Your Merchant Account settings determine whether this field is required. Character length for Visa, MasterCard, and Discover: exactly three digits. Character length for American Express: exactly four digits. **IMPORTANT:** To comply with credit card processing regulations, once a transaction has been completed, you must not store the value of CVV2.	See description
EMAIL	Email address of payer. Character length and limitations: 127 single-byte characters	No
PAYERID	Unique PayPal customer account identification number. Character length and limitations:13 single-byte alphanumeric characters.	No
FIRSTNAME	Payer's first name. Character length and limitations: 25 single-byte characters	Yes

TABLE A.51 *Additional Fields for Direct Credit Card Reference Transactions*

NVP Name	Data Type/Description	Required
LASTNAME	Payer's last name. Character length and limitations: 25 single-byte characters	Yes
STREET	First street address. Character length and limitations: 100 single-byte characters	No
CITY	Name of city. Character length and limitations: 40 single-byte characters	No
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53.	No
COUNTRYCODE	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."	No
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	No

DoReferenceTransactionResponse

TABLE A.52 *DoReferenceTransactionResponse Fields*

NVP Name	Data Type/Description
TRANSACTIONID	Unique transaction ID of the payment. **NOTE:** If the PaymentAction of the request was Authorization, the value of TransactionID is your AuthorizationID for use with the Authorization & Capture APIs. Character length and limitations: 19 single-byte characters
AMT	The final amount charged, including any shipping and taxes from your Merchant Profile. Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD. This value is the amount of the payment as specified by you on DoDirectPaymentRequest.

***TABLE A.52** DoReferenceTransactionResponse Fields (Continued)*

NVP Name	Data Type/Description
FEEAMT	Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
	PayPal fee amount charged for the transaction
	Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
SETTLEAMT	Amount deposited in your PayPal account after a currency conversion.
TAXAMT	Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
	Tax charged on the transaction.
	Character length and limitations: Does not exceed $10,000 USD in any currency. No currency symbol. Regardless of currency, decimal separator is a period (.), and the optional thousands separator is a comma (,). Equivalent to nine characters maximum for USD.
EXCHANGERATE	Exchange rate if a currency conversion occurred. Relevant only if your are billing in their non-primary currency. If the customer chooses to pay with a currency other than the non-primary currency, the conversion occurs in the customer's account.
	Character length and limitations: a decimal that does not exceed 17 characters, including decimal point
PAYMENTSTATUS	Status of the payment:
	Completed: The payment has been completed, and the funds have been added successfully to your account balance.
	Pending: The payment is pending. See the PendingReason element for more information.

***TABLE A.52** DoReferenceTransactionResponse Fields (Continued)*

NVP Name	Data Type/Description
PENDINGREASON	The reason the payment is pending: • `none`: No pending reason • `address`: The payment is pending because your customer did not include a confirmed shipping address and your Payment Receiving Preferences is set such that you want to manually accept or deny each of these payments. To change your preference, go to the `Preferences` section of your `Profile`. • `echeck`: The payment is pending because it was made by an eCheck that has not yet cleared. • `intl`: The payment is pending because you hold a non-U.S. account and do not have a withdrawal mechanism. You must manually accept or deny this payment from your `Account Overview`. • `multi-currency`: You do not have a balance in the currency sent, and you do not have your `Payment Receiving Preferences` set to automatically convert and accept this payment. You must manually accept or deny this payment. • `verify`: The payment is pending because you are not yet verified. You must verify your account before you can accept this payment. • `other`: The payment is pending for a reason other than those listed above. For more information, contact PayPal customer service.
REASONCODE	The reason for a reversal if `TransactionType` is `reversal`: • `none`: No reason code • `chargeback`: A reversal has occurred on this transaction due to a chargeback by your customer. • `guarantee`: A reversal has occurred on this transaction due to your customer triggering a money-back guarantee. • `buyer-complaint`: A reversal has occurred on this transaction due to a complaint about the transaction from your customer. • `refund`: A reversal has occurred on this transaction because you have given the customer a refund. • `other`: A reversal has occurred on this transaction due to a reason not listed above.
BILLING AGREEMENTID	The Billing agreement associated with this transaction. This field is returned only for express checkout reference transaction.
L_FMF*filter*ID*n*	Filter ID, including the filter type, which is either `ACCEPT` or `DENY`, and the entry number, starting from `0`.
L_FMF*filter*NAME*n*	Filter name, including the filter type, which is either `ACCEPT` or `DENY`, and the entry number, starting from `0`.

***TABLE A.53** Additional Response Fields for Direct Credit Card Reference Transactions*

NVP Name	Data Type/Description
AVSCODE	Address Verification System response code.
	Character limit: One single-byte alphanumeric character
	See Table A.2, "AVS Response Codes for Visa, MasterCard, Discover, and American Express," on page 55.
CVV2MATCH	Result of the CVV2 check by PayPal.
	See Table A.3, "CVV2 Response Codes for Visa, MasterCard, Discover, and American Express," on page 56.

Non-Referenced Credits

DoNonReferencedCredit

DoNonReferencedCreditRequest

The `DoNonReferencedCredit` request comprises the fields in Table A.54.

***TABLE A.54** DoNonReferencedCredit Request Fields*

Field	Data Type/Description	Required?
METHOD	Name of the API: `DoNonReferencedCredit`	Yes
AMT	Total of order, including shipping, handling, and tax.	Yes
	Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,).	
	AMT = NETAMT + SHIPPINGAMT + TAXAMT	
NETAMT	Total amount of all items in this transaction.	No
	Limitations: Must not exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). The only valid currencies are AUD, CAD, EUR, GBP, JPY, and USD	
SHIPPINGAMT	Total shipping costs in this transaction.	No
	Limitations: Value must be zero or greater and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). The only valid currencies are AUD, CAD, EUR, GBP, JPY, and USD.	

TABLE A.54 *DoNonReferencedCredit Request Fields*

Field	Data Type/Description	Required?
TAXAMT	Sum of tax for all items in this order. Limitations: The value must be zero or greater and cannot exceed $10,000 USD in any currency. No currency symbol. Must have two decimal places, decimal separator must be a period (.), and the optional thousands separator must be a comma (,). The only valid currencies are AUD, CAD, EUR, GBP, JPY, and USD.	No
CURRENCYCODE	Currency code. Default: USD. Limitations: The only valid currencies are AUD, CAD, EUR, GBP, JPY, and USD.	Yes
NOTE	An information note used by merchant to record why this credit was issued to a buyer. Character length and limitations: String field, up 255 single-byte alphanumeric characters	No
CREDITCARDTYPE	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters. Allowable values: ● Visa ● MasterCard ● Discover ● Amex ● Switch ● Solo **NOTE:** If CREDITCARDTYPE is Switch or Solo, CURRENCYCODE must be GBP. Also, either STARTDATE or ISSUENUMBER must be specified.	Yes
ACCT	Credit card number Character length and limitations: numeric characters only. No spaces or punctutation. Must conform with modulo and length required by each credit card type.	Yes
EXPDATE	Credit-card expiration date. Format: MMYYYY Character length and limitations: 6 single-byte numeric characters, including leading zero if needed.	Yes

***TABLE* A.54** *DoNonReferencedCredit Request Fields*

Field	Data Type/Description	Required?
CVV2	Card Verification Value, version 2. **NOTE:** Your Merchant Account settings determine whether this field is required. Character length for Visa, MasterCard, and Discover: exactly three digits. Character length for American Express: exactly four digits. **IMPORTANT:** To comply with credit card processing regulations, once a transaction has been completed, you must not store the value of CVV2.	See description
SALUTATION	Prefix of buyer's name. Character format: String	No
FIRSTNAME	Payer's first name. Character length and limitations: 25 single-byte characters	No
MIDDLENAME	Payer's (buyer's) middle name. Character length and limitations: 25 single-byte characters	No
LASTNAME	Payer's last name. Character length and limitations: 25 single-byte characters	No
SUFFIX	Payer's (buyer's) name suffix. Character format: String	No
STREET	First street address. Character length and limitations: 100 single-byte characters **NOTE:** All address-related fields are for the billing address.	No
STREET2	Second street address. Character length and limitations: 100 single-byte characters	No
CITY	Name of city. Character length and limitations: 40 single-byte characters	No
STATE	State or province. Character length and limitations: 40 single-byte characters For state or province abbreviations, see "State and Province Abbreviations" on page 53."	No
COUNTRYCODE	Country code. Character length and limitations: Two single-byte characters. For the list of country codes, see Appendix G, "Country Codes."	No
COUNTRY	Country name. Character length and limitations: 2 single-byte characters	No
ZIP	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	No

TABLE A.54 DoNonReferencedCredit Request Fields

Field	Data Type/Description	Required?
PHONENUM	Phone number. Character length and limit: 20 single-byte characters	No
STARTDATE	Month that Switch or Solo card was issued. Format: MMYYYY Character length and limitations: 6 single-byte numeric characters, including leading zero if needed.	Yes if card type is Switch or Solo; otherwise, No
ISSUENUMBER	Issue number of Switch or Solo card. Character length: two numeric digits maximum.	No

DoNonReferencedCredit Response

The `DoNonReferencedCredit` response comprises the fields in Table A.55.

TABLE A.55 DoNonReferencedCredit Response Fields

Field	Description/Data Type
TRANSACTIONID	Unique identifier of a transaction Character length and limitations: 17 single-byte alphanumeric characters
CURRENCYCODE	Currency code. Default: USD. Limitations: The only valid currencies are AUD, CAD, EUR, GBP, JPY, and USD.

GetBalance

TABLE A.56 GetBalance Request Parameters

Parameter	Description	Required?
METHOD	Name of API call: GetBalance	Yes
RETURNALLCURRENCIES	Whether to return all currencies, which is one of the following values: ● 0 - Return only the balance for the primary currency holding ● 1 - Return the balance for each currency holding **NOTE:** You can only use this option with API VERSION 51.0 and later.	No

TABLE A.57 *GetBalance Response Fields*

Field	Description
L_AMTn	The available balance for a currency holding. L_AMT0 always contains the available balance of the primary currency holding.
L_CURRENCYCODEn	The currency code associated with the holding, such as USD.

AddressVerify

TABLE A.58 *AddressVerifyRequest*

Parameter	Description	Required?
METHOD	Name of API call: AddressVerify	Yes
EMAIL	Email address of a PayPal member to verify. Maximum string length: 255 single-byte characters Input mask: ?@?.??	Yes
STREET	First line of the billing or shipping postal address to verify. To pass verification, the value of Street must match the first three single-byte characters of a postal address on file for the PayPal member. Street Maximum string length: 35 single-byte characters Alphanumeric plus - , . ' # \ Whitespace and case of input value are ignored.	Yes
ZIP	Postal code to verify. To pass verification, the value of Zip must match the first five single-byte characters of the postal code of the verified postal address for the verified PayPal member. Maximum string length: 16 single-byte characters Whitespace and case of input value are ignored.	Yes

TABLE A.59 AddressVerifyResponse

Element	Description
CONFIRMATIONCODE	None: The request value of the `Email` element does not match any email address on file at PayPal. `Confirmed`: If the response value of the `StreetMatch` element is `Matched`, the entire postal address is confirmed. `Unconfirmed`: PayPal responds that the postal address is unconfirmed. **NOTE:** The values `Confirmed` and `Unconfirmed` both indicate that the member email address passed verification.
STREETMATCH	None: The request value of the `Email` element does not match any email address on file at PayPal. No comparison of other request values was made. `Matched`: The request value of the `Street` element matches the first three single-byte characters of a postal address on file for the PayPal member. `Unmatched`: The request value of the `Street` element does not match any postal address on file for the PayPal member.
ZIPMATCH	None: The request value of the `Street` element was unmatched. No comparison of the `Zip` element was made. `Matched`: The request value of the `Zip` element matches the zip code of the postal address on file for the PayPal member. `Unmatched`: The request value of the `Zip` element does not match the zip code of the postal address on file for the PayPal member.
COUNTRYCODE	Two-character country code (ISO 3166) on file for the PayPal email address.
TOKEN	The token contains encrypted information about the member's email address and postal address. If you pass the value of the token in the HTML variable `address_api_token` of Buy Now buttons, PayPal prevents the buyer from using an email address or postal address other than those that PayPal verified with this API call. The token is valid for 24 hours. Character length and limitations: 94 single-byte characters

B

Error Message Reference

This chapter contains error messages for the API.

Error Response Format

If the ACK value is Error or Warning, specific API response fields are not returned. An error response has the following general format

TABLE B.1   Format of an Error Response

Response Fields on Error	`ACK=Error&TIMESTAMP=date/timeOfResponse`
	`&CORRELATIONID=debuggingToken&VERSION=3.200000`
	`&BUILD=buildNumber&L_ERRORCODE0=errorCode&`
	`L_SHORTMESSAGE0=shortMessage`
	`&L_LONGMESSAGE0=longMessage&L_SEVERITYCODE0=severityCode`
		Multiple errors can be returned. Each set of errors has a different numeric suffix, starting with 0 and incremented by one for each error.

Validation Errors

TABLE B.1 Validation Errors

Error Code	Short Message	Long Message
81000	Missing Parameter	Required Parameter Missing : Unable to identify parameter
81001	Invalid Parameter	A Parameter is Invalid : Unable to identify parameter
81002	Unspecified Method	Method Specified is not Supported
81003	Unspecified Method	No Method Specified
81004	Unspecified Method	No Request Received
81100	Missing Parameter	OrderTotal (Amt) : Required parameter missing
81101	Missing Parameter	MaxAmt : Required parameter missing
81102	Missing Parameter	ReturnURL: Required parameter missing
81103	Missing Parameter	NotifyURL : Required parameter missing
81104	Missing Parameter	CancelURL : Required parameter missing
81105	Missing Parameter	ShipToStreet : Required parameter missing

TABLE B.1 *Validation Errors*

Error Code	Short Message	Long Message
81106	Missing Parameter	ShipToStreet2 : Required parameter missing
81107	Missing Parameter	ShipToCity : Required parameter missing
81108	Missing Parameter	ShipToState : Required parameter missing
81109	Missing Parameter	ShipToZip : Required parameter missing
81110	Missing Parameter	Country : Required parameter missing
81111	Missing Parameter	ReqConfirmShipping : Required parameter missing
81112	Missing Parameter	NoShipping : Required parameter missing
81113	Missing Parameter	AddrOverride : Required parameter missing
81114	Missing Parameter	LocaleCode : Required parameter missing
81115	Missing Parameter	PaymentAction : Required parameter missing
81116	Missing Parameter	Email : Required parameter missing
81117	Missing Parameter	Token : Required parameter missing
81118	Missing Parameter	PayerID : Required parameter missing
81119	Missing Parameter	ItemAmt : Required parameter missing
81120	Missing Parameter	ShippingAmt : Required parameter missing
81121	Missing Parameter	HandlingTotal Amt : Required parameter missing
81122	Missing Parameter	TaxAmt : Required parameter missing
81123	Missing Parameter	IPAddress : Required parameter missing
81124	Missing Parameter	ShipToName : Required parameter missing
81125	Missing Parameter	L_Amt : Required parameter missing
81126	Missing Parameter	Amt : Required parameter missing
81127	Missing Parameter	L_TaxAmt : Required parameter missing
81128	Missing Parameter	AuthorizationID : Required parameter missing
81129	Missing Parameter	CompleteType : Required parameter missing
81130	Missing Parameter	CurrencyCode : Required parameter missing
81131	Missing Parameter	TransactionID : Required parameter missing
81132	Missing Parameter	TransactionEntity : Required parameter missing
81133	Missing Parameter	Acct : Required parameter missing
81134	Missing Parameter	ExpDate : Required parameter missing
81135	Missing Parameter	FirstName : Required parameter missing

TABLE B.1 *Validation Errors*

Error Code	Short Message	Long Message
81136	Missing Parameter	LastName : Required parameter missing
81137	Missing Parameter	Street : Required parameter missing
81138	Missing Parameter	Street2 : Required parameter missing
81139	Missing Parameter	City : Required parameter missing
81140	Missing Parameter	State : Required parameter missing
81141	Missing Parameter	Zip : Required parameter missing
81142	Missing Parameter	CountryCode : Required parameter missing
81143	Missing Parameter	RefundType : Required parameter missing
81144	Missing Parameter	StartDate : Required parameter missing
81145	Missing Parameter	EndDate : Required parameter missing
81146	Missing Parameter	MPID : Required parameter missing
81147	Missing Parameter	CreditCardType : Required parameter missing
81148	Missing Parameter	User : Required parameter missing
81149	Missing Parameter	Pwd : Required parameter missing
81150	Missing Parameter	Version : Required parameter missing
81200	Invalid Parameter	Amt : Invalid parameter
81201	Invalid Parameter	MaxAmt : Invalid parameter
81203	Invalid Parameter	NotifyURL : Invalid parameter
81205	Invalid Parameter	ShipToStreet : Invalid parameter
81206	Invalid Parameter	ShipToStreet2 : Invalid parameter
81207	Invalid Parameter	ShipToCity : Invalid parameter
81208	Invalid Parameter	ShipToState : Invalid parameter
81209	Invalid Parameter	ShipToZip : Invalid parameter
81210	Invalid Parameter	Country : Invalid parameter
81211	Invalid Parameter	ReqConfirmShipping : Invalid parameter
81212	Invalid Parameter	Noshipping : Invalid parameter
81213	Invalid Parameter	AddrOverride : Invalid parameter
81214	Invalid Parameter	LocaleCode : Invalid parameter
81215	Invalid Parameter	PaymentAction : Invalid parameter
81219	Invalid Parameter	ItemAmt : Invalid parameter

***TABLE B.1** Validation Errors*

Error Code	Short Message	Long Message
81220	Invalid Parameter	ShippingAmt : Invalid parameter
81221	Invalid Parameter	HandlingTotal Amt : Invalid parameter
81222	Invalid Parameter	TaxAmt : Invalid parameter
81223	Invalid Parameter	IPAddress : Invalid parameter
81224	Invalid Parameter	ShipToName : Invalid parameter
81225	Invalid Parameter	L_Amt : Invalid parameter
81226	Invalid Parameter	Amt : Invalid parameter
81227	Invalid Parameter	L_TaxAmt : Invalid parameter
81229	Invalid Parameter	CompleteType : Invalid parameter
81230	Invalid Parameter	CurrencyCode : Invalid parameter
81232	Invalid Parameter	TransactionEntity : Invalid parameter
81234	Invalid Parameter	ExpDate : Invalid parameter
81235	Invalid Parameter	FirstName : Invalid parameter
81236	Invalid Parameter	LastName : Invalid parameter
81237	Invalid Parameter	Street : Invalid parameter
81238	Invalid Parameter	Street2 : Invalid parameter
81239	Invalid Parameter	City : Invalid parameter
81243	Invalid Parameter	RefundType : Invalid parameter
81244	Invalid Parameter	StartDate : Invalid parameter
81245	Invalid Parameter	EndDate : Invalid parameter
81247	Invalid Parameter	CreditCardType : Invalid parameter
81248	Invalid Parameter	Username : Invalid parameter
81249	Invalid Parameter	Password : Invalid parameter
81250	Invalid Parameter	Version : Invalid parameter
81251	Internal Error	Internal Service Error

General API Errors

TABLE B.2 General API Errors

Error Code	Short Message	Long Message	Correcting This Error
10002	Authentication /Authorization Failed	Username/Password is incorrect	This error can be caused by an incorrect API username, an incorrect API password, or an invalid API signature. Make sure that all three of these values are correct. For your security, PayPal does not report exactly which of these three values might be in error.
10002	Authentication /Authorization Failed	You do not have permissions to make this API call	
10002	Authentication /Authorization Failed	Account is locked or inactive	
10002	Internal Error	Internal Error	
10002	Authentication /Authorization Failed	Internal Error	
10002	Authentication /Authorization Failed	Account is not verified	
10002	Authentication /Authorization Failed	This call is not defined in the database!	
10002	Authentication /Authorization Failed	Token is not valid	
10002	Restricted account	Account is restricted	Your PayPal merchant account has been restricted. Contact your PayPal account manager for resolution.

TABLE B.2 General API Errors

Error Code	Short Message	Long Message	Correcting This Error
10002	Authentication /Authorization Failed	Token is not valid	
10002	Authentication /Authorization Failed	API access is disabled for this account	
10002	Authentication /Authorization Failed	Client certificate is disabled	
10002	Restricted account	Account is restricted	

Direct Payment API Errors

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10102	PaymentAction of Order Temporarily Unavailable	PaymentAction of Order is temporarily unavailable. Please try later or use other PaymentAction.	
10401	Transaction refused because of an invalid argument. See additional error messages for details.	Order total is missing.	
10418	Transaction refused because of an invalid argument. See additional error messages for details.	The currencies of the shopping cart amounts must be the same.	
10426	Transaction refused because of an invalid argument. See additional error messages for details.	Item total is invalid.	

TABLE B.3 *Direct Payment API Errors*

Error Code	Short Message	Long Message	Corrective Action
10427	Transaction refused because of an invalid argument. See additional error messages for details.	Shipping total is invalid.	
10428	Transaction refused because of an invalid argument. See additional error messages for details.	Handling total is invalid.	
10429	Transaction refused because of an invalid argument. See additional error messages for details.	Tax total is invalid.	
10432	Invalid argument	Invoice ID value exceeds maximum allowable length.	
10500	Invalid Configuration	This transaction cannot be processed due to an invalid merchant configuration.	Occurs when you have not agreed to the billing agreement.
10501	Invalid Configuration	This transaction cannot be processed due to an invalid merchant configuration.	Occurs when the billing agreement is disabled or inactive.
10502	Invalid Data	This transaction cannot be processed. Please use a valid credit card.	The credit card used is expired.
10504	Invalid Data	This transaction cannot be processed. Please enter a valid Credit Card Verification Number.	The CVV provided is invalid. The CVV is between 3-4 digits long.
10505	Gateway Decline	This transaction cannot be processed.	The transaction was refused because the AVS response returned the value of N, and the merchant account is not able to accept such transactions.
10507	Invalid Configuration	This transaction cannot be processed. Please contact PayPal Customer Service.	Your PayPal account is restricted - contact PayPal for more information.
10508	Invalid Data	This transaction cannot be processed. Please enter a valid credit card expiration date.	The expiration date must be a two-digit month and four-digit year.
10509	Invalid Data	This transaction cannot be processed.	You must submit an IP address of the buyer with each API call.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10510	Invalid Data	The credit card type is not supported. Try another card type.	The credit card type entered is not currently supported by PayPal.
10511	Invalid Data	This transaction cannot be processed.	The merchant selected an value for the PaymentAction field that is not supported.
10512	Invalid Data	This transaction cannot be processed. Please enter a first name.	The first name of the buyer is required for this merchant.
10513	Invalid Data	This transaction cannot be processed. Please enter a last name.	The last name of the buyer is required for this merchant.
10519	Invalid Data	Please enter a credit card.	The credit card field was blank.
10520	Invalid Data	This transaction cannot be processed.	The total amount and item amounts do not match.
10521	Invalid Data	This transaction cannot be processed. Please enter a valid credit card.	The credit card entered is invalid.
10523	Internal Error	This transaction cannot be processed.	None - this is a PayPal internal error.
10525	Invalid Data	This transaction cannot be processed. The amount to be charged is zero.	The merchant entered a amount of zero.
10526	Invalid Data	This transaction cannot be processed. The currency is not supported at this time.	The currency code entered is not supported.
10527	Invalid Data	This transaction cannot be processed. Please enter a valid credit card number and type.	The credit card entered is invalid.
10534	Gateway Decline	This transaction cannot be processed. Please enter a valid credit card number and type.	The credit card entered is currently restricted by PayPal. Contact PayPal for more information.
10535	Gateway Decline	This transaction cannot be processed. Please enter a valid credit card number and type.	The credit card entered is invalid.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10536	Invalid Data	This transaction cannot be processed.	The merchant entered an invoice ID that is already associated with a transaction by the same merchant. By default, the invoice ID must be unique for all transactions. To change this setting, log into PayPal or contact customer service.
10537	Filter Decline	This transaction cannot be processed.	The transaction was declined by the country filter managed by the merchant. To accept this transaction, change your risk settings on PayPal.
10538	Filter Decline	This transaction cannot be processed.	The transaction was declined by the maximum amount filter managed by the merchant. To accept this transaction, change your risk settings on PayPal.
10539	Filter Decline	This transaction cannot be processed.	The transaction was declined by PayPal. Contact PayPal for more information.
10540	Invalid Data	The transaction cannot be processed due to an invalid address.	The transaction was declined by PayPal because of an invalid address.
10541	Gateway Decline	This transaction cannot be processed. Please enter a valid credit card number and type.	The credit card entered is currently restricted by PayPal. Contact PayPal for more information.
10542	Invalid Data	This transaction cannot be processed. Please enter a valid email address.	The email address provided by the buyer is in an invalid format.
10544	Gateway Decline	This transaction cannot be processed.	The transaction was declined by PayPal. Contact PayPal for more information.
10545	Gateway Decline	This transaction cannot be processed.	The transaction was declined by PayPal because of possible fraudulent activity. Contact PayPal for more information.
10546	Gateway Decline	This transaction cannot be processed.	The transaction was declined by PayPal because of possible fraudulent activity on the IP address. Contact PayPal for more information.
10547	Internal Error	This transaction cannot be processed.	None - this is a PayPal internal error.
10548	Invalid Configuration	This transaction cannot be processed. The merchant's account is not able to process transactions.	The merchant account attempting the transaction is not a business account at PayPal. Check your account settings.

TABLE* B.3 *Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10549	Invalid Configuration	This transaction cannot be processed. The merchant's account is not able to process transactions.	The merchant account attempting the transaction is not able to process Direct Payment transactions. Contact PayPal for more information.
10550	Invalid Configuration	This transaction cannot be processed.	Access to Direct Payment was disabled for your account. Contact PayPal for more information.
10552	Invalid Configuration	This transaction cannot be processed.	The merchant account attempting the transaction does not have a confirmed email address with PayPal. Check your account settings.
10553	Gateway Decline	This transaction cannot be processed.	The merchant attempted a transaction where the amount exceeded the upper limit for that merchant.
10554	Filter Decline	This transaction cannot be processed.	The transaction was declined because of a merchant risk filter for AVS. Specifically, the merchant has set to decline transaction when the AVS returned a no match (AVS = N).
10555	Filter Decline	This transaction cannot be processed.	The transaction was declined because of a merchant risk filter for AVS. Specifically, the merchant has set to decline transaction when the AVS returned a partial match.
10556	Filter Decline	This transaction cannot be processed.	The transaction was declined because of a merchant risk filter for AVS. Specifically, the merchant has set to decline transaction when the AVS was unsupported.
10561	Invalid Data	There's an error with this transaction. Please enter complete billing address.	
10562	Invalid Data	This transaction cannot be processed. Please enter a valid credit card expiration year.	
10563	Invalid Data	This transaction cannot be processed. Please enter a valid credit card expiration month.	
10564	Gateway Decline	This transaction cannot be processed.	There was a problem processing this transaction.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10565	Merchant country unsupported	The merchant country is not supported.	
10566	Credit card type unsupported	The credit card type is not supported.	
10567	Invalid Data	This transaction cannot be processed. Please enter a valid credit card number and type.	
10571	Transaction approved, but with invalid Card Security Code (CSC) format.	This transaction was approved, although the Card Security Code (CSC) had too few, too many, or invalid characters. Based on your account profile settings, the invalid CSC was not given to the card issuer for its approval process.	If you want to require valid CVV values, change the risk control settings in your account profile.
10701	Invalid Data	There's an error with this transaction. Please enter a valid billing address.	
10702	Invalid Data	There's an error with this transaction. Please enter a valid address1 in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10703	Invalid Data	There's an error with this transaction. Please enter a valid address2 in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10704	Invalid Data	There's an error with this transaction. Please enter a valid city in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10705	Invalid Data	There's an error with this transaction. Please enter a valid state in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10706	Invalid Data	There's an error with this transaction. Please enter a valid postal code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.

***TABLE* B.3** *Direct Payment API Errors*

Error Code	Short Message	Long Message	Corrective Action
10707	Invalid Data	There's an error with this transaction. Please enter a valid country in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10708	Invalid Data	There's an error with this transaction. Please enter a complete billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10709	Invalid Data	There's an error with this transaction. Please enter an address1 in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10709	Invalid Data	There's an error with this transaction. Please enter an address1 in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10710	Invalid Data	There's an error with this transaction. Please enter a city in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10710	Invalid Data	There's an error with this transaction. Please enter a city in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10711	Invalid Data	There's an error with this transaction. Please enter your state in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10712	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10713	Invalid Data	There's an error with this transaction. Please enter a country in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10713	Invalid Data	There's an error with this transaction. Please enter a country in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10714	Invalid Data	There's an error with this transaction. Please enter a valid billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10715	Invalid Data	There's an error with this transaction. Please enter a valid state in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10716	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10717	Invalid Data	There's an error with this transaction. Please enter a valid postal code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10718	Invalid Data	There's an error with this transaction. Please enter a valid city and state in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10719	Invalid Data	There's an error with this transaction. Please enter a valid shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10720	Invalid Data	There's an error with this transaction. Please enter a valid address1 in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10721	Invalid Data	There's an error with this transaction. Please enter a valid address2 in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10722	Invalid Data	There's an error with this transaction. Please enter a valid city in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10723	Invalid Data	There's an error with this transaction. Please enter a valid state in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.

***TABLE* B.3** *Direct Payment API Errors*

Error Code	Short Message	Long Message	Corrective Action
10724	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10725	Invalid Data	There's an error with this transaction. Please enter a valid country in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10726	Invalid Data	There's an error with this transaction. Please enter a complete shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10726	Invalid Data	There's an error with this transaction. Please enter a complete shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10727	Invalid Data	There's an error with this transaction. Please enter an address1 in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10727	Invalid Data	There's an error with this transaction. Please enter an address1 in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10728	Invalid Data	There's an error with this transaction. Please enter a city in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10728	Invalid Data	There's an error with this transaction. Please enter a city in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10729	Invalid Data	There's an error with this transaction. Please enter your state in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10730	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10731	Invalid Data	There's an error with this transaction. Please enter a country in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10731	Invalid Data	There's an error with this transaction. Please enter a country in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10732	Invalid Data	There's an error with this transaction. Please enter a valid shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10733	Invalid Data	There's an error with this transaction. Please enter a valid state in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10734	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10735	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10736	Invalid Data	There's an error with this transaction. Please enter a valid city and state in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10744	Invalid Data	This transaction cannot be processed. Please enter a valid country code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10745	Invalid Data	This transaction cannot be processed. Please enter a valid country code in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10746	Invalid Data	This transaction cannot be processed. Please use a valid country on the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10747	Invalid Data	This transaction cannot be processed.	The merchant entered an IP address that was in an invalid format. The IP address must be in a format such as `123.456.123.456`.
10748	Invalid Data	This transaction cannot be processed without a Credit Card Verification Number.	The merchant's configuration requires a CVV to be entered, but no CVV was provided with this transaction. Contact PayPal if you wish to change this setting.
10750	Invalid Data	There's an error with this transaction. Please enter a valid state in the shipping address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10751	Invalid Data	There's an error with this transaction. Please enter a valid state in the billing address.	The merchant provided an address either in the United States or Canada, but the state provided is not a valid state in either country.
10752	Gateway Decline	This transaction cannot be processed.	The transaction was declined by the issuing bank, not PayPal. The merchant should attempt another card.
10754	Gateway Decline	This transaction cannot be processed.	The transaction was declined by PayPal. Contact PayPal for more information.
10755	Invalid Data	This transaction cannot be processed due to an unsupported currency.	The currency code entered by the merchant is not supported.
10756	Gateway Decline	The transaction cannot be processed. The country and billing address associated with this credit card do not match.	None - this is a PayPal internal error.
10758	Invalid Configuration	There's been an error due to invalid API username and/or password.	The API username or password is incorrect for this merchant.
10759	Gateway Decline	This transaction cannot be processed. Please enter a valid credit card number and type.	The transaction was declined by PayPal. Contact PayPal for more information.
10760	Invalid Configuration	This transaction cannot be processed. The country listed for your business address is not currently supported.	The merchant's country of residence listed in their PayPal account is not currently supported to allow Direct Payment transactions.

TABLE B.3 Direct Payment API Errors

Error Code	Short Message	Long Message	Corrective Action
10761	Gateway Decline	This transaction cannot be processed. Please check the status of your first transaction before placing another order.	The transaction was declined because PayPal is currently processing a transaction by the same buyer for the same amount. Can occur when a buyer submits multiple, identical transactions in quick succession.
10762	Gateway Decline	This transaction cannot be processed.	The CVV provide is invalid. The CVV is between 3-4 digits long.
10763	Invalid Data	This transaction cannot be processed.	None - this is a PayPal internal error.
10764	This transaction cannot be processed at this time. Please try again later.	This transaction cannot be processed at this time. Please try again later.	The transaction was declined by PayPal. Contact PayPal for more information.
15001	Gateway Decline	This transaction cannot be processed.	The transaction was rejected by PayPal because of excessive failures over a short period of time for this credit card. Contact PayPal for more information.
15002	Gateway Decline	This transaction cannot be processed.	The transaction was declined by PayPal. Contact PayPal for more information.
15003	Invalid Configuration	This transaction cannot be processed.	The transaction was declined because the merchant does not have a valid commercial entity agreement on file with PayPal. Contact PayPal for more information.
15004	Gateway Decline	This transaction cannot be processed. Please enter a valid Credit Card Verification Number.	The transaction was declined because the CVV entered does not match the credit card.
15005	Processor Decline	This transaction cannot be processed.	The transaction was declined by the issuing bank, not PayPal. The merchant should attempt another card.
15006	Processor Decline	This transaction cannot be processed. Please enter a valid credit card number and type.	The transaction was declined by the issuing bank, not PayPal. The merchant should attempt another card.
15007	Processor Decline	This transaction cannot be processed. Please use a valid credit card.	The transaction was declined by the issuing bank because of an expired credit card. The merchant should attempt another card.

TABLE B.3 *Direct Payment API Errors*

Error Code	Short Message	Long Message	Corrective Action
15008	Invalid Data	This transaction has been completed, but the total of items in the cart did not match the total of all items.	

Express Checkout API Errors

TABLE B.4 *SetExpressCheckout API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10001	ButtonSource value truncated.	The transaction could not be loaded	
10001	Internal Error	Internal Error	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction refused because of an invalid argument. See additional error messages for details.	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid value for request billing address parameter.	

TABLE B.4 *SetExpressCheckout API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10007	Permission denied	You do not have permissions to make this API call	
10102	PaymentAction of Order Temporarily Unavailable	PaymentAction of Order is temporarily unavailable. Please try later or use other PaymentAction.	
10103	Please use another Solution Type.	Your Solution Type is temporarily unavailable. If possible, please use another Solution Type.	
10402	Authorization only is not allowed for merchant.	This merchant account is not permitted to set PaymentAction to Authorization. Please contact Customer Service.	
10404	Transaction refused because of an invalid argument. See additional error messages for details.	ReturnURL is missing.	
10405	Transaction refused because of an invalid argument. See additional error messages for details.	CancelURL is missing.	
10407	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid buyer email address (BuyerEmail).	
10409	You're not authorized to access this info.	Express Checkout token was issued for a merchant account other than yours.	

TABLE B.4 *SetExpressCheckout API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10410	Invalid token	Invalid token.	
10411	This Express Checkout session has expired.	This Express Checkout session has expired. Token value is no longer valid.	The token returned by `SetExpressCheckout response` expires after three hours. If you attempt to send the `DoExpressCheckoutPayment` after that time, you will receive error code 10411 in the `DoExpressCheckoutPayment response`. If you receive this error, you must return your customer to PayPal to approve the use of PayPal again. Display an error message to inform the customer that the transaction expired, and provide a button to return to PayPal. In this situation, you are effectively restarting the entire checkout process. (Do not reuse the expired token value on `SetExpressCheckout request`.) However, because you already know the final `OrderTotal`, be sure to update the value for that element if appropriate. You might also want to update the values for `ReturnURL` and `CancelURL`, if necessary.

TABLE B.4 SetExpressCheckout API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10412	Duplicate invoice	Payment has already been made for this InvoiceID.	PayPal checks that `InvoiceID` values are unique for any particular merchant. If you send an `InvoiceID` value already associated with another transaction in the PayPal system, PayPal returns error code 10412. You might not be able to correct this error during an actual checkout. If you get this error, research why might occur and modify your implementation of Express Checkout to ensure that you generate unique invoice identification numbers.
10415	Transaction refused because of an invalid argument. See additional error messages for details.	A successful transaction has already been completed for this token.	PayPal allows a token only once for a successful transaction. Handling this error If you determine that your customers are clicking your "Place Order" button twice, PayPal recommends that you disable the button after your customer has clicked it.
10425	Express Checkout has been disabled for this merchant.	Express Checkout has been disabled for this merchant. Please contact Customer Service.	
10432	Transaction refused because of an invalid argument. See additional error messages for details.	Invoice ID value exceeds maximum allowable length.	

TABLE B.4 *SetExpressCheckout API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10433	Transaction refused because of an invalid argument. See additional error messages for details.	Value of OrderDescription element has been truncated.	
10434	Transaction refused because of an invalid argument. See additional error messages for details.	Value of Custom element has been truncated.	
10436	Transaction refused because of an invalid argument. See additional error messages for details.	PageStyle value exceeds maximum allowable length.	
10437	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-image value exceeds maximum allowable length.	
10438	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-image value exceeds maximum allowable length.	

TABLE B.4 SetExpressCheckout API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10439	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-image value exceeds maximum allowable length.	
10440	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-image value exceeds maximum allowable length.	
10471	Transaction refused because of an invalid argument. See additional error messages for details.	ReturnURL: Invalid parameter	
10472	Transaction refused because of an invalid argument. See additional error messages for details.	CancelURL is invalid.	
10476	Invalid Data	Maximum number of billing agreements exceeded.	
10477	Invalid Data	More than one billing agreement specified for reference transaction.	
10478	Invalid Data	Recurring payments profile description must be provided if the billing agreement type is recurring payments.	
10479	Invalid Data	Billing agreement types cannot be mixed in the same project.	

TABLE B.4 SetExpressCheckout API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10480	Invalid Data	Invalid billing agreement type.	
10537	Risk Control Country Filter Failure	The transaction was refused because the country was prohibited as a result of your Country Monitor Risk Control Settings.	
10538	Risk Control Max Amount Failure	The transaction was refused because the maximum amount was excceeded as a result of your Maximum Amount Risk Control Settings.	
10539	Payment declined by your Risk Controls settings: PayPal Risk Model.	Payment declined by your Risk Controls settings: PayPal Risk Model.	
10725	Shipping Address Country Error	There was an error in the Shipping Address Country field	
10727	Shipping Address1 Empty	The field Shipping Address1 is required	
10728	Shipping Address City Empty	The field Shipping Address City is required	
10729	Shipping Address State Empty	The field Shipping Address State is required	
10730	Shipping Address Postal Code Empty	The field Shipping Address Postal Code is required	
10731	Shipping Address Country Empty	The field Shipping Address Country is required	
10736	Shipping Address Invalid City State Postal Code	A match of the Shipping Address City, State, and Postal Code failed.	

TABLE B.4 *SetExpressCheckout API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
11547	Recurring payments temporarily unavailable; try again later	Recurring payments temporarily unavailable.	
11601	Request for billing address failed	Billing address request is not enabled for merchant	
11602	Request for billing address failed	Feature not yet available	

TABLE B.5 *GetExpressCheckoutDetails API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10001	Internal Error	Internal Error	
10001	Internal Error	Transaction failed due to internal error	
10001	ButtonSource value truncated.	The transaction could not be loaded	
10001	ButtonSource value truncated.	The transaction could not be loaded	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction refused because of an invalid argument. See additional error messages for details.	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid	

TABLE B.5 GetExpressCheckoutDetails API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10004	Invalid transaction type	You can not get the details for this type of transaction	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction could not be loaded	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid	
10007	Permission denied	You do not have permissions to make this API call	
10007	Permission denied	You do not have permission to get the details of this transaction	
10007	Permission denied	You do not have permissions to make this API call	
10408	Express Checkout token is missing.	Express Checkout token is missing.	
10409	You're not authorized to access this info.	Express Checkout token was issued for a merchant account other than yours.	
10410	Invalid token	Invalid token.	
10411	This Express Checkout session has expired.	This Express Checkout session has expired. Token value is no longer valid.	

TABLE B.6 DoExpressCheckoutPayment API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10001	Internal Error	Transaction failed due to internal error	
10001	Internal Error	Warning an internal error has occurred. The transaction id may not be correct	
10001	ButtonSource value truncated.	The transaction could not be loaded	
10001	Internal Error	Internal Error	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction refused because of an invalid argument. See additional error messages for details.	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid	
10007	Permission denied	You do not have permissions to make this API call	
10406	Transaction refused because of an invalid argument. See additional error messages for details.	The PayerID value is invalid.	
10408	Express Checkout token is missing.	Express Checkout token is missing.	

TABLE B.6 *DoExpressCheckoutPayment API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10409	You're not authorized to access this info.	Express Checkout token was issued for a merchant account other than yours.	
10410	Invalid token	Invalid token.	
10411	This Express Checkout session has expired.	This Express Checkout session has expired. Token value is no longer valid.	
10412	Duplicate invoice	Payment has already been made for this InvoiceID.	
10413	Transaction refused because of an invalid argument. See additional error messages for details.	The totals of the cart item amounts do not match order amounts.	If you include any of the following element values with `DoExpressCheckoutPayment`, the sum of their values must equal the value of `OrderTotal`. ● `ItemTotal` ● `ShippingTotal` ● `HandlingTotal` ● `TaxTotal` If you get this error, research why it might have occurred and modify your implementation of Express Checkout to ensure proper addition of the values.
10414	Transaction refused because of an invalid argument. See additional error messages for details.	The amount exceeds the maximum amount for a single transaction.	
10415	Transaction refused because of an invalid argument. See additional error messages for details.	A successful transaction has already been completed for this token.	

TABLE B.6 DoExpressCheckoutPayment API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10416	Transaction refused because of an invalid argument. See additional error messages for details.	You have exceeded the maximum number of payment attempts for this token.	You can send a maximum of 10 `DoExpressCheckoutPayment` API calls for any single token value, after which the token becomes invalid.
10417	Transaction cannot complete.	The transaction cannot complete successfully. Instruct the customer to use an alternative payment method.	It is possible that the payment method the customer chooses on PayPal might not succeed when you send `DoExpressCheckoutPayment`. The most likely cause is that the customer's credit card failed bank authorization. Another possible, though rare, cause is that the final `OrderTotal` is significantly higher than the original estimated `OrderTotal` you sent with `SetExpressCheckout` at Integration Point 1, and the final `OrderTotal` does not pass PayPal's risk model analysis.
			If the customer has no other PayPal funding source that is likely to succeed, `DoExpressCheckoutPayment response` returns error code 10417.
			Instruct the customer that PayPal is unable to process the payment and redisplay alternative payment methods with which the customer can pay.
10418	Transaction refused because of an invalid argument. See additional error messages for details.	The currencies of the shopping cart amounts must be the same.	
10419	Express Checkout PayerID is missing.	Express Checkout PayerID is missing.	

TABLE B.6 *DoExpressCheckoutPayment API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10420	Transaction refused because of an invalid argument. See additional error messages for details.	Express Checkout PaymentAction is missing.	
10421	This Express Checkout session belongs to a different customer.	This Express Checkout session belongs to a different customer. Token value mismatch.	When your customer logs into PayPal, the PayPal `PayerID` is associated with the Express Checkout token. This error is caused by mixing tokens for two different `PayerID`s. The `Token` and `PayerID` returned for any particular customer by `GetExpressCheckoutDetails` response must be the same ones you send with `DoExpressCheckoutPayment`. Verify that your programs are properly associating the `Token`s and `PayerID`s.
10422	Customer must choose new funding sources.	The customer must return to PayPal to select new funding sources.	It is possible that the payment method the customer chooses on PayPal might not succeed when you send `DoExpressCheckoutPayment` request. If the customer has a different PayPal funding source that is likely to succeed, `DoExpressCheckoutPayment` response returns error code 10422 so you can redirect the customer back to PayPal.
10423	Transaction refused because of an invalid argument. See additional error messages for details.	This transaction cannot be completed with PaymentAction of Authorization.	This error occurs if at Integration Point 1, you set `PaymentAction` to `Sale` with `SetExpressCheckout` request but at Integration Point 3, you set `PaymentAction` to `Authorization` with `DoExpressCheckoutPayment`. PayPal does not allow this switch from `Sale` to `Authorization` in a single checkout session. PayPal does allow the reverse, however. You can set `PaymentAction` to `Authorization` with `SetExpressCheckout` at Integration Point 1 and switch `PaymentAction` to `Sale` with `DoExpressCheckoutPayment` at Integration Point 3.

***TABLE* B.6** *DoExpressCheckoutPayment API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10424	Transaction refused because of an invalid argument. See additional error messages for details.	Shipping address is invalid.	If you receive this error message, PayPal recommends that you return your customer to PayPal to review and approve new valid funding sources. Although this error is rare, you should consider trapping the error to display a message to the customer describing what happened, along with a button or hyperlink to return to PayPal. For the rules of this calculation, see the chapter about best practices in the *PayPal Express Checkout Integration Guide*.
10426	Transaction refused because of an invalid argument. See additional error messages for details.	Item total is invalid.	
10427	Transaction refused because of an invalid argument. See additional error messages for details.	Shipping total is invalid.	
10428	Transaction refused because of an invalid argument. See additional error messages for details.	Handling total is invalid.	
10429	Transaction refused because of an invalid argument. See additional error messages for details.	Tax total is invalid.	

TABLE B.6 DoExpressCheckoutPayment API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10431	Item amount is invalid.	Item amount is invalid.	
10432	Transaction refused because of an invalid argument. See additional error messages for details.	Invoice ID value exceeds maximum allowable length.	
10433	Transaction refused because of an invalid argument. See additional error messages for details.	Value of OrderDescription element has been truncated.	
10434	Transaction refused because of an invalid argument. See additional error messages for details.	Value of Custom element has been truncated.	
10435	Transaction refused because of an invalid argument. See additional error messages for details.	The customer has not yet confirmed payment for this Express Checkout session.	
10441	Transaction refused because of an invalid argument. See additional error messages for details.	The NotifyURL element value exceeds maximum allowable length.	

TABLE B.6 DoExpressCheckoutPayment API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10442	ButtonSource value truncated.	The ButtonSource element value exceeds maximum allowable length.	
10443	Transaction refused because of an invalid argument. See additional error messages for details.	This transaction cannot be completed with PaymentAction of Order.	
10444	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction currency specified must be the same as previously specified.	
10445	This transaction cannot be processed at this time. Please try again later.	This transaction cannot be processed at this time. Please try again later.	
10446	Unconfirmed email	A confirmed email is required to make this API call.	
10474	Invalid Data	This transaction cannot be processed. The country code in the shipping address must match the buyer's country of residence.	The buyer selects the country of residence when they sign up for their PayPal account. The country of residence is displayed after the dash in the title on the Account Overview page.
10537	Risk Control Country Filter Failure	The transaction was refused because the country was prohibited as a result of your Country Monitor Risk Control Settings.	
10538	Risk Control Max Amount Failure	The transaction was refused because the maximum amount was excceeded as a result of your Maximum Amount Risk Control Settings.	

***TABLE* B.6** *DoExpressCheckoutPayment API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10539	Payment declined by your Risk Controls settings: PayPal Risk Model.	Payment declined by your Risk Controls settings: PayPal Risk Model.	
10725	Shipping Address Country Error	There was an error in the Shipping Address Country field	
10727	Shipping Address1 Empty	The field Shipping Address1 is required	
10728	Shipping Address City Empty	The field Shipping Address City is required	
10729	Shipping Address State Empty	The field Shipping Address State is required	
10730	Shipping Address Postal Code Empty	The field Shipping Address Postal Code is required	
10731	Shipping Address Country Empty	The field Shipping Address Country is required	
10736	Shipping Address Invalid City State Postal Code	A match of the Shipping Address City, State, and Postal Code failed.	

Authorization and Capture API Errors

TABLE B.7 *Authorization & Capture API Error Messages*

Error Code	Short Message	Long Message	Returned By API Call...	Correcting This Error...
10001	Internal Error	Internal Error		
10001	Internal Error	Transaction failed due to internal error		
10004	Internal Error	Invalid argument		
10007	Permission denied	You do not have permissions to make this API call		
10009	Transaction refused	Account is locked or inactive		Retry the request at a later time or close order.
10010	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid argument		
10202	Exceed max	Transaction would exceed user's monthly maximum	DoAuthorization DoCapture	
10600	Authorization voided.	Authorization is voided.	DoAuthorization DoCapture DoReauthorization DoVoid	Close the order or authorization.
10601	Authorization expired.	Authorization has expired.	DoAuthorization DoCapture DoReauthorization DoVoid	Close the order or authorization.
10602	Authorization completed.	Authorization has already been completed.	DoAuthorization DoCapture DoReauthorization DoVoid	Close the order or authorization.

TABLE B.7 Authorization & Capture API Error Messages

Error Code	Short Message	Long Message	Returned By API Call...	Correcting This Error...
10603	The buyer is restricted.	The buyer account is restricted.	DoAuthorization DoCapture DoReauthorization DoVoid	Contact the buyer.
10604	Authorization must include both buyer and seller.	Authorization transaction cannot be unilateral. It must include both buyer and seller to make an auth.	DoAuthorization	Review the order to ensure customer and seller are both PayPal members.
10605	Unsupported currency.	Currency is not supported.	DoAuthorization DoCapture	Retry the request with a PayPal-supported currency.
10606	Buyer cannot pay.	Transaction rejected, please contact the buyer.	DoAuthorization DoCapture DoReauthorization	Contact the buyer.
10607	Auth&Capture unavailable.	Authorization & Capture feature unavailable.	DoAuthorization DoCapture DoReauthorization DoVoid	Contact PayPal Customer Service
10608	Funding source missing.	The funding source is missing.	DoAuthorization DoCapture DoReauthorization	Contact the buyer.
10609	Invalid transactionID.	Transaction id is invalid.	DoAuthorization DoCapture DoReauthorization DoVoid	Check the validity of the authorization ID and reattempt the request.
10610	Amount limit exceeded.	Amount specified exceeds allowable limit.	DoAuthorization DoCapture DoReauthorization	Reattempt the request with a lower amount.
10611	Not enabled.	Authorization & Capture feature is not enabled for the merchant. Contact customer service.	DoAuthorization DoCapture DoReauthorization	Contact PayPal Customer Service.
10612	No more settlement.	Maxmimum number of allowable settlements has been reached. No more settlement for the authorization.	DoCapture	Close the order.

TABLE B.7 *Authorization & Capture API Error Messages*

Error Code	Short Message	Long Message	Returned By API Call...	Correcting This Error...
10613	Currency mismatch.	Currency of capture must be the same as currency of authorization.	DoCapture	Ensure that the currencies are the same, and retry the request.
10614	Cannot void reauth.	You can void only the original authorization, not a reauthorization.	DoVoid	Void the authorization.
10615	Cannot reauth reauth.	You can reauthorize only the original authorization, not a reauthorization.	DoReauthorization	Capture the reauthorization.
10616	Maximum number of reauthorization allowed for the auth is reached.	Maximum number of reauthorization allowed for the auth is reached.	DoReauthorization	Capture or close the authorization
10617	Reauthorization not allowed.	Reauthorization is not allowed inside honor period.	DoReauthorization	Capture the authorization ro reauthorize outside of honor period.
10618	Transaction already voided or expired.	Transaction has already been voided or expired.	DoAuthorization DoCapture DoReauthorization DoVoid	Close the orde or authorizationr.
10619	Invoice ID value exceeds maximum allowable length.	Invoice ID value exceeds maximum allowable length.	DoCapture	Check the length of the invoice ID and reattempt the request.
10620	Order has already been voided, expired or completed.	Order has already been voided, expired or completed.	DoAuthorization DoCapture DoVoid	Close this order.
10621	Order has expired.	Order has expired.	DoAuthorization DoCapture DoVoid	Close this order.
10622	Order is voided.	Order is voided.	DoAuthorization DoCapture DoVoid	Close this order.

TABLE B.7 Authorization & Capture API Error Messages

Error Code	Short Message	Long Message	Returned By API Call...	Correcting This Error...
10623	Maximum number of authorization allowed for the order is reached.	Maximum number of authorization allowed for the order is reached.	DoAuthorization DoCapture DoReauthorization DoVoid	Capture this order.
10624	Duplicate invoice	Payment has already been made for this InvoiceID.	DoAuthorization	Review the invoice ID and reattempt the request.
10625	Transaction refused because of an invalid argument. See additional error messages for details.	The amount exceeds the maximum amount for a single transaction.	DoAuthorization DoCapture DoReauthorization	Reattempt the request with a lower amount.
10626	Risk	Transaction refused due to risk model	DoAuthorization DoCapture DoReauthorization	Contact the buyer.
10627	Transaction refused because of an invalid argument. See additional error messages for details.	The invoice ID field is not supported for basic authorizations	DoAuthorization DoReauthorization DoVoid	The Invoice ID field can only be used with DoCapture.
10628	This transaction cannot be processed at this time. Please try again later.	This transaction cannot be processed at this time. Please try again later.	DoAuthorization DoCapture DoReauthorization DoVoid	Retry the request at a later time.
10629	Reauthorization not allowed.	Reauthorization is not allowed for this type of authorization.	DoReauthorization	Use DoAuthorization to authorize the an order.
10630	Item amount is invalid.	Item amount is invalid.	DoAuthorization DoCapture	Check the item amount to ensure that it is not zero or negative.

TABLE B.7 Authorization & Capture API Error Messages

Error Code	Short Message	Long Message	Returned By API Call...	Correcting This Error...
11094	This authorization cannot be voided, reauthorized, or captured against.	This authorization can only be handled through the marketplace which created it. It cannot directly be voided, reauthorized, or captured against.		

RefundTransaction API Errors

TABLE B.8 RefundTransaction API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10001	Internal Error	Internal Error	
10001	Internal Error	Warning an internal error has occurred. The transaction id may not be correct	
10001	ButtonSource value truncated.	The transaction could not be loaded	
10001	Internal Error	Internal Error	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The partial refund amount must be a positive amount	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	You can not specify a partial amount with a full refund	

TABLE B.8 RefundTransaction API Errors

Error Code	Short Message	Long Message	Correcting This Error...
10004	Transaction refused because of an invalid argument. See additional error messages for details.	A transaction id is required	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The partial refund amount must be a positive amount	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	You can not specify a partial amount with a full refund	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	A transaction id is required	
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction class is not supported	

TABLE **B.8** *RefundTransaction API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid	
10007	Permission denied	You do not have permission to refund this transaction	
10007	Permission denied	You do not have permissions to make this API call	
10009	Transaction refused	You do not have a verified ACH	This error can be caused by insufficient funds in your PayPal balance to cover the amount of the refund and either your not having yet verified the bank account associated with your PayPal account or your not having any bank account associated with your PayPal account at all. Ensure that you have sufficient funds in your PayPal balance and that you have verified the associated bank account.
10009	Transaction refused	The partial refund amount must be less than or equal to the original transaction amount	
10009	Transaction refused	The partial refund amount must be less than or equal to the remaining amount	
10009	Transaction refused	The partial refund amount is not valid	
10009	Transaction refused	Because a complaint case exists on this transaction, only a refund of the full or full remaining amount of the transaction can be issued	
10009	Transaction refused	You are over the time limit to perform a refund on this transaction	

TABLE B.8 *RefundTransaction API Errors*

Error Code	Short Message	Long Message	Correcting This Error...
10009	Transaction refused	Can not do a full refund after a partial refund	
10009	Transaction refused	Account is locked or inactive	
10009	Transaction refused	The partial refund must be the same currency as the original transaction	
10009	Transaction refused	This transaction has already been fully refunded	
10009	Transaction refused	Account is restricted	
10009	Transaction refused	You can not refund this type of transaction	
10009	Transaction refused	You can not do a partial refund on this transaction	
10009	Transaction refused	The account for the counterparty is locked or inactive	
10009	Transaction refused	You can not refund this type of transaction	
10011	Invalid transaction id value	Transaction refused because of an invalid transaction id value	
11001	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction class is not supported	

TransactionSearch API Errors

TABLE B.9 TransactionSearch API Errors

Error Code	Short Message	Long Message
10001	Internal Error	Internal Error
10001	ButtonSource value truncated.	The transaction could not be loaded
10003	Transaction refused because of an invalid argument. See additional error messages for details.	Start date is a required parameter
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Start date is invalid
10004	Transaction refused because of an invalid argument. See additional error messages for details.	End date is invalid
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Currency is not supported
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Transaction class is not supported
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Receipt id is not valid
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Payer email is invalid
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Auction item id is not valid

TABLE B.9 TransactionSearch API Errors

Error Code	Short Message	Long Message
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Receiver email is invalid
10004	Transaction refused because of an invalid argument. See additional error messages for details.	You can not search for a transaction id and a receipt id
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Receiver can only be specified for payments you've received
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid
10007	Permission denied	You do not have permissions to search for this transaction
10007	Permission denied	You do not have permissions to make this API call
11002	Search warning	The number of results were truncated. Please change your search parameters if you wish to see all your results.

GetTransactionDetails API Errors

TABLE B.10 GetTransactionDetails API Errors

Error Code	Short Message	Long Message
10001	Internal Error	Internal Error

MassPay API Errors

TABLE B.11 MassPay API Errors

Error Code	Short Message	Long Message
10001	Invalid account number.	The transaction failed as a result of an invalid credit card number. Check the number or attempt with another card.
10001	Internal Error	Internal Error
10001	Internal Error	The transaction could not be loaded
10001	ButtonSource value truncated.	The transaction could not be loaded
10001	Transaction refused because of an invalid argument. See additional error messages for details.	The masspay receiver_type is not a recognizable type
10002	Account locked	The user account is locked
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The number of input records is greater than maximum allowed
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The number of input records is less than or equal to zero

TABLE B.11 MassPay API Errors

Error Code	Short Message	Long Message
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The note string length exceeds the maximum limit of 4000 characters
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The amount is missing
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The currency is missing
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Currency is not supported
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The amount is not a valid number

TABLE B.11 MassPay API Errors

Error Code	Short Message	Long Message
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The amount exceeds the max limit of a single mass pay item ~1
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The amount is less than or equal to zero
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The unique id string length exceeds the maximum limit of 30 characters
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The unique id string contains a space as a character
10004	Transaction refused because of an invalid argument. See additional error messages for details.	The transaction id is not valid
10007	Permission denied	You do not have permissions to make this API call

***TABLE* B.11** *MassPay API Errors*

Error Code	Short Message	Long Message
10301	User not allowed	The user is not allowed to send money through Mass Pay
10303	Restricted account	Account is restricted
10304	Unconfirmed email	The user account has unconfirmed email
10305	Limit Exceeded	The user account needs to have its sending limit removed in order to make a mass payment.
10306	Limit Exceeded	The user's international account needs to have its sending limit removed in order to make a mass payment
10307	Receive only account	The user account is receive only and therefore cannot send payments out
10308	Masspay server configuration error	There is some configuration error
10309	Masspay server unavailable	The mass pay server is unavailable
10310	Unable to create payment	Unable to create payments for masspay
10311	Unable to submit payment	Unable to submit payments for masspay
10312	Masspay server error	The masspay server has reported errors
10313	Masspay Invalid Data	The masspay input file includes invalid data
10314	Masspay input parse error	The input to the masspay server is incorrect. Please make sure that you are using a correctly formatted input.
10317	Masspay Invalid Email	The masspay input file includes invalid Email
10320	Internal Error	Internal Error
10321	Insufficient funds	The account does not have sufficient funds to do this masspay

TABLE B.11 *MassPay API Errors*

Error Code	Short Message	Long Message
10327	Masspay Invalid UserID	The masspay input file includes invalid UserID

Recurring Payments and Reference Transactions API Errors

Recurring Payments Errors

The following table lists errors for the following APIs that handle recurring payments profiles:

- `CreateRecurringPaymentsProfile`
- `GetRecurringPaymentsProfileDetails`
- `ManageRecurringPaymentsProfileStatus`
- `UpdateRecurringPaymentsProfile`
- `BillOutstandingAmount`

TABLE B.12 *Recurring Payments Errors*

Error Code	Short Message	Long Message	Additional Information
10001	Invalid account number	The transaction failed as a result of invalid credit card number. Check the number or attempt with another credit card.	
10478	Invalid Data	Recurring payments profile description must be provided if the billing agreement type is recurring payments.	
10501	Invalid Configuration	This transaction cannot be processed due to an invalid merchant configuration.	Occurs when the billing agreement is disabled or inactive.
10502	Invalid Data	This transaction cannot be processed. Please use a valid credit card.	The credit card used is expired.
10504	Invalid Data	This transaction cannot be processed. Please enter a valid Credit Card Verification Number.	The CVV provided is invalid. The CVV is between 3-4 digits long.

TABLE B.12 Recurring Payments Errors

Error Code	Short Message	Long Message	Additional Information
10505	Gateway Decline	This transaction cannot be processed.	The transaction was refused because the AVS response returned the value of N, and the merchant account is not able to accept such transactions.
10507	Invalid Configuration	This transaction cannot be processed. Please contact PayPal Customer Service.	Your PayPal account is restricted - contact PayPal for more information.
10508	Invalid Data	This transaction cannot be processed. Please enter a valid credit card expiration date.	The expiration date must be a two-digit month and four-digit year.
10509	Invalid Data	This transaction cannot be processed.	You must submit an IP address of the buyer with each API call.
10510	Invalid Data	The credit card type is not supported. Try another card type.	The credit card type entered is not currently supported by PayPal.
10511	Invalid Data	This transaction cannot be processed.	The merchant selected an value for the PaymentAction field that is not supported.
10512	Invalid Data	This transaction cannot be processed. Please enter a first name.	The first name of the buyer is required for this merchant.
10513	Invalid Data	This transaction cannot be processed. Please enter a last name.	The last name of the buyer is required for this merchant.
10535	Gateway decline	This transaction cannot be processed. Please enter a valid credit card number and type.	
10548	Invalid Configuration	This transaction cannot be processed. The merchant's account is not able to process transactions.	The merchant account attempting the transaction is not a business account at PayPal. Check your account settings.
10550	Invalid Configuration	This transaction cannot be processed.	Access to Direct Payment was disabled for your account. Contact PayPal for more information.
10561	Invalid Data	There's an error with this transaction. Please enter complete billing address.	

TABLE B.12 Recurring Payments Errors

Error Code	Short Message	Long Message	Additional Information
10565	Merchant country unsupported	The merchant country is not supported.	
10709	Invalid Data	There's an error with this transaction. Please enter an address1 in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10710	Invalid Data	There's an error with this transaction. Please enter a city in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10711	Invalid Data	There's an error with this transaction. Please enter your state in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10712	Invalid Data	There's an error with this transaction. Please enter your five digit postal code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10713	Invalid Data	There's an error with this transaction. Please enter a country in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10744	Invalid Data	This transaction cannot be processed. Please enter a valid country code in the billing address.	There was a problem with a particular field in the address. The long error message will tell you what field is invalid.
10748	Invalid Data	This transaction cannot be processed without a Credit Card Verification Number.	The merchant's configuration requires a CVV to be entered, but no CVV was provided with this transaction. Contact PayPal if you wish to change this setting.
10751	Invalid Data	There's an error with this transaction. Please enter a valid state in the billing address.	The merchant provided an address either in the United States or Canada, but the state provided is not a valid state in either country.
10752	Gateway Decline	This transaction cannot be processed.	The transaction was declined by the issuing bank, not PayPal. The merchant should attempt another card.

***TABLE* B.12** *Recurring Payments Errors*

Error Code	Short Message	Long Message	Additional Information
10760	Invalid Configuration	This transaction cannot be processed. The country listed for your business address is not currently supported.	The merchant's country of residence listed in their PayPal account is not currently supported to allow Direct Payment transactions.
11089	Transaction Refused.	Account is locked or inactive.	
11501	Invalid merchant country	The merchant's country is currently not supported	
11502	The token is missing or is invalid	The token is missing or is invalid	Missing token
11503	Missing subscription details	Missing subscription details	One or more subscription detail fields are missing from the request.
11504	Missing schedule details	Missing schedule details	One or more schedule detail fields are missing from the request.
11505	Start date should be greater than current date	Subscription start date should be greater than current date	
11506	Invalid max failed payments	Max failed payments, if supplied, must be >= 0	
11507	Invalid trial amount	Trial amount must be >= 0	
11508	Invalid trial total billing cycles	Trial total billing cycles must be > 0	
11509	Invalid trial billing period	Trial billing period must be one of Day, Week, Month, SemiMonth, or Year	
11510	Invalid trial amount	Trial amount must be >= 0	
11511	Invalid currency for trial amount	This currency is currently not supported for trial amount.	Currency must be USD.
11512	Invalid trial shipping amount	Trial shipping amount must be >= 0	If a trial shipping amount is supplied, it must be >= 0.
11513	Invalid currency for trial shipping amount	This currency is currently not supported for trial shipping amount	Currency must be USD.
11514	Invalid profile status	The profile status is invalid.	
11515	Invalid currency for trial tax amount	This currency is currently not supported for trial tax amount	Currency must be USD.

TABLE B.12 *Recurring Payments Errors*

Error Code	Short Message	Long Message	Additional Information
11516	Invalid billing frequency	Billing Frequency must be > 0 and be less than or equal to one year	The combination of billing frequency and billing period cannot exceed one year.
11517	Invalid total billing cycles	Total billing cycles must be >= 0 (0 means continuous)	
11518	Invalid billing period	Billing period must be one of Day, Week, Month, SemiMonth, or Year	
11519	Invalid amount	Bill amount must be greater than 0	
11520	Invalid currency for amount	This currency is currently not supported for amount	Currency must be USD.
11521	Invalid shipping amount	Shipping amount must be >= 0	
11522	Invalid currency for shipping amount	This currency is currently not supported for shipping amount	Currency must be USD.
11523	Invalid tax amount	Tax amount must be >= 0	
11524	Invalid currency for tax amount	This currency is currently not supported for tax amount	Currency must be USD.
11531	Invalid profile status	The profile status must be one of (A)ctive, (C)ancelled, or e(X)pired	
11543	Invalid payer country	The payer's country is currently not supported	
11544	Invalid period status	The trial period status must be one of (A)ctive or (C)ancelled	
11545	Denied	Payer's account is denied	
11546	Denied	Merchant account is denied	
11547	This feature is ot available at this time	Recurring payments feature is not currently available; try again later	
11548	Invalid currency code	Invalid currency code, all currency codes much match	
11549	Start Date is required	Subscription start date is required	
11550	Start Date should be valid	Subscription start date should be valid	
11551	Profile ID is missing from the request	Profile ID is missing from the request	
11552	Invalid profile ID	The profile ID is invalid	

TABLE B.12 *Recurring Payments Errors*

Error Code	Short Message	Long Message	Additional Information
11553	Invalid action value provided	Invalid action value provided	
11554	Note is missing from the request	Note is missing from the request	
11555			
11556	Invalid profile status for cancel action; profile should be active or suspended	Invalid profile status for cancel action; profile should be active or suspended	
11557	Invalid profile status for suspend action; profile should be active	Invalid profile status for suspend action; profile should be active	
11558	Invalid profile status for reactivate action; profile should be suspended	Invalid profile status for reactivate action; profile should be suspended	
11560	Invalid activation type	The activation type is invalid	
11561	Invalid initial amount	The initial amount is invalid	
11562	Invalid auto bill type	auto bill type is invalid	
11564	The number of failed payments should be greater than the current number of failed payments	The number of failed payments should be greater than the current number of failed payments	
11567	The time of the update is too close to the billing date	The time of the update is too close to the billing date	
11568	Invalid currency for delinquent amount	Invalid currency for delinquent amount	
11569	Cannot increase delinquent amount	Cannot increase delinquent amount	
11570	The maximum number of failed payments should be greater than the current number of failed payments	The maximum number of failed payments should be greater than the current number of failed payments	

TABLE B.12 *Recurring Payments Errors*

Error Code	Short Message	Long Message	Additional Information
11571	The total amount cannot exceed 120% increment per 180 days	The total amount cannot exceed 120% increment per 180 days	
11576	Bill amount is greater than outstanding balance	Bill amount is greater than outstanding balance	
11577	Another outstanding payment is scheduled	Another outstanding payment is scheduled	
11578	Bill outstanding amount not processed because of scheduled payment	Recurring payment scheduled within 24 hours, so we are not processing the bill outstanding amount	
11579	Payment is failing	Payment is failing	
11582	No payment in queue	No scheduled payment has been found.	
11583	DPRP feature is unavailable	DPRP feature is unavailable	
11584	Inactive profile	Profile is not active	
11585	Missing Token or buyer credit card	Missing token or payment source	
11586	DPRP is disabled	DPRP is disabled for this merchant.	
11587	Billing Address is Partial	Billing Address is Partial	
11590	Profile update is not required	Based on your input request, profile already up to date.	
15004	Gateway Decline	This transaction cannot be processed. Please enter a valid Credit Card Verification Number.	

SetCustomerBillingAgreement Errors

TABLE B.13 *SetCustomerBillingAgreement Errors*

Error Code	Short Message	Long Message	Additional Information
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid argument; BillingType input field is set to None	
10404	Transaction refused because of an invalid argument. See additional error messages for details.	ReturnURL is missing.	ReturnURL tag has no content
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid value for request billing address parameter.	
10405	Transaction refused because of an invalid argument. See additional error messages for details.	CancelURL is missing.	CancelURL tag has no content
10407	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid buyer email address (BuyerEmail).	Invalid BuyerEmail (badly formatted or violates SMTP protocol defined email address format) or BuyerEmail is passed as an empty tag.
10436	Transaction refused because of an invalid argument. See additional error messages for details.	PageStyle value exceeds maximum allowable length.	PageStyle tag is too long
10437	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-image value exceeds maximum allowable length.	cpp_header_image tag is too long; maximum length is 127

TABLE B.13 *SetCustomerBillingAgreement Errors*

Error Code	Short Message	Long Message	Additional Information
10438	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-border-color value exceeds maximum allowable length.	cpp_header_border_color tag is too long; maximum length is 6
10439	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-header-back-color value exceeds maximum allowable length.	cpp_header_back_color tag is too long; maximum length is 6
10440	Transaction refused because of an invalid argument. See additional error messages for details.	cpp-payflow-color value exceeds maximum allowable length.	cpp_payflow_color tag is too long. maximum length is 6
10471	Transaction refused because of an invalid argument. See additional error messages for details.	ReturnURL is invalid.	ReturnURL tag contains invalid URL
10472	Transaction refused because of an invalid argument. See additional error messages for details.	CancelURL is invalid.	CancelURL tag contains invalid URL
10476	Transaction refused because of an invalid argument. See additional error messages for details.		
10477	Transaction refused because of an invalid argument. See additional error messages for details.		
11452	Merchant not enabled for reference transactions	Merchant not enabled for reference transactions	This merchant is not enabled for Mark reference transaction. Warning only
11453	Reference transactions temporarily unavailable.	Reference transaction feature not currently available; try again later	Feature not enabled because system is running in standin mode. Warning only

TABLE B.13 *SetCustomerBillingAgreement Errors*

Error Code	Short Message	Long Message	Additional Information
11601	Request for billing address failed	Billing address request is not enabled for merchant	
11602	Request for billing address failed	Feature not yet available	

GetBillingAgreementCustomerDetails Errors

TABLE B.14 *GetBillingAgreementCustomerDetails Errors*

Error Code	Short Message	Long Message	Additional Information
10408	Missing token	Token is missing	Token is missing
10409	You're not authorized to access this info.	Express Checkout token was issued for a merchant account other than yours.	Token belongs to a different merchant
10410	Invalid token	Invalid token.	Token invalid
10411	This Express Checkout session has expired.	This Express Checkout session has expired. Token value is no longer valid.	Token expired

DoReferenceTransaction Errors

TABLE B.15 *All Reference Transactions-Related API Errors*

Error Code	Short Message	Long Message	Additional Information
10001	Internal Error	Internal Error	
10002	Authentication/Authorization Failed		
10004	Transaction refused because of an invalid argument. See additional error messages for details.	Invalid payment type argument	
10009	Transaction refused	The account for the counterparty is locked or inactive	Merchant is locked/close/restricted

***TABLE* B.15** *All Reference Transactions-Related API Errors* (Continued)

Error Code	Short Message	Long Message	Additional Information
10010	Invalid Invoice	Non-ASCII invoice id is not supported	Non-ASCII characters are used in InvoiceID field
10201	Agreement canceled	Billing Agreement was cancelled	Billing agreement is not active
10202	Exceed max	Transaction would exceed user's monthly maximum	Transaction would exceed the monthly limit
10203	Action required	Transaction failed, action required by user	
10204	User's account is closed or restricted	User's account is closed or restricted	
10205	Risk	Transaction refused due to risk model	
10206	Duplicate	Transaction was already processed	
10207	Retry	Transaction failed but user has alternate funding source	Retry the transaction with an alternate funding source.
10209	Disabled	Preapproved Payments not enabled.	Merchants is not enabled for preapproved payments (PAP); applies only to legacy PAP billing agreements
10210	No Funding	Transaction failed because has no funding sources	Payee has no funding sources.
10211		Invalid MP ID	Invalid MP ID
10212	Profile preference setting	A profile preference is set to automatically deny certain transactions	A profile preference is set that automatically denies this kind of transaction
10213	Invalid Soft Descriptor	The soft descriptor passed in contains invalid characters	
10214			Soft descriptor format error.
10215	Soft Descriptor truncated	The soft descriptor was truncated	
10216			Transaction refused because a confirmed address is not available
10400	Transaction refused because of an invalid argument. See additional error messages for details.	Order total is missing.	TotalOrder amount is missing

TABLE B.15 *All Reference Transactions-Related API Errors* (Continued)

Error Code	Short Message	Long Message	Additional Information
10401	Transaction refused because of an invalid argument. See additional error messages for details.	Order total is invalid.	TotalOrder amount is invalid
10402	Authorization only is not allowed for merchant.	This merchant account is not permitted to set PaymentAction? to Authorization. Please contact Customer Service.	Merchant is not eligible for auth settlement
10406	Transaction refused because of an invalid argument. See additional error messages for details.	The PayerID? value is invalid.	Merchant account number is invalid
10412	Duplicate invoice	Payment has already been made for this InvoiceID?.	Payment already made for the invoice
10413	Transaction refused because of an invalid argument. See additional error messages for details.	The totals of the cart item amounts do not match order amounts.	Total of cart items does not match order total
10414	Transaction refused because of an invalid argument. See additional error messages for details.	The amount exceeds the maximum amount for a single transaction.	Amount exceeds the max amount for a single txn
10417	Transaction cannot complete.	The transaction cannot complete successfully. Instruct the customer to use an alternative payment method.	Account not associated with a usable funding source
10417	Transaction cannot complete.	The transaction cannot complete successfully. Instruct the customer to use an alternative payment method.	Credit card or Billing Agreement is required to complete payment
10418	Transaction refused because of an invalid argument. See additional error messages for details.	The currencies of the shopping cart amounts must be the same.	Currencies in the shopping cart must be the same
10420	Transaction refused because of an invalid argument. See additional error messages for details.	PaymentAction? tag is missing.	PaymentAction? tag is missing.
10426	Transaction refused because of an invalid argument. See additional error messages for details.	Item total is invalid.	ItemTotal amount is invalid.

TABLE B.15 *All Reference Transactions-Related API Errors* (Continued)

Error Code	Short Message	Long Message	Additional Information
10427	Transaction refused because of an invalid argument. See additional error messages for details.	Shipping total is invalid.	ShippingTotal amount is invalid.
10428	Transaction refused because of an invalid argument. See additional error messages for details.	Handling total is invalid.	HandlingTotal amount is invalid
10429	Transaction refused because of an invalid argument. See additional error messages for details.	Tax total is invalid.	TaxTotal amount is invalid.
10429	Transaction refused because of an invalid argument. See additional error messages for details.	Item sales tax is invalid	PaymentDetailsItem.Tax field is invalid. Warning only; API executes
10430	Transaction refused because of an invalid argument. See additional error messages for details.	Item amount is missing.	PaymentDetailsItem.Amount field is missing. Warning only; API executes
10431	Transaction refused because of an invalid argument. See additional error messages for details.	Item amount is invalid.	PaymentDetailsItem.Amount field is invalid. Warning only; API executes
10432	Transaction refused because of an invalid argument. See additional error messages for details.	Invoice ID value exceeds maximum allowable length.	InvoiceID field is too long; maximum length is 256
10433	Transaction refused because of an invalid argument. See additional error messages for details.	Value of OrderDescription element has been truncated.	OrderDescription field is too long; maximum length is 127. Warning only; API executes
10434	Transaction refused because of an invalid argument. See additional error messages for details.	Value of Custom element has been truncated.	Custom field is too long; maximum length is 256. Warning only; API executes
10441	Transaction refused because of an invalid argument. See additional error messages for details.	The NotifyURL element value exceeds maximum allowable length.	NotifyURL field is too long; maximum length for notify URL is 2048

***TABLE B.15** All Reference Transactions-Related API Errors (Continued)*

Error Code	Short Message	Long Message	Additional Information
10442	ButtonSource value truncated.	The ButtonSource element value exceeds maximum allowable length.	ButtonSource field is too long; maximum length is 32. Warning only; API executes
10504	The cvv2 is invalid.	This transaction cannot be processed. Please enter a valid Credit Card Verification Number.	CVV2 field is invalid.
10527	Invalid Data	This transaction cannot be processed. Please enter a valid credit card number and type.	CreditCardNumber and/or CreditCardType is invalid
10537	Risk Control Country Filter Failure	The transaction was refused because the country was prohibited as a result of your Country Monitor Risk Control Settings.	Transaction refused due to country monitor risk control
10538	Risk Control Max Amount Failure	The transaction was refused because the maximum amount was excused as a result of your Maximum Amount Risk Control Settings.	Transaction refused due to max amount risk control
10539	Payment declined by your Risk Controls settings: PayPal Risk Model.	Payment declined by your Risk Controls settings: PayPal Risk Model.	Transaction declined by Risk Control settings: PayPal Risk model
10546	Gateway Decline	This transaction cannot be processed.	IP fraud models failed.
10560	Invalid Data	The issue number of the credit card is invalid.	IssueNumber is invalid.
10567	Invalid Data	A Start Date or Issue Number is required.	None of Start date or issue number is specified (only applies to Switch and Solo credit cards)
10600	Authorization voided.	Authorization voided.	
10601	Authorization expired.	Authorization has expired.	
10621	Order has expired.	Order has expired.	
10622	Order is voided.	Order is voided.	
10623	Maximum number of authorization allowed for the order is reached.	Maximum number of authorization allowed for the order is reached.	
10725	Shipping Address Country Error	There was an error in the Shipping Address Country field	Shipping address error in country field

TABLE B.15 All Reference Transactions-Related API Errors (Continued)

Error Code	Short Message	Long Message	Additional Information
10727	Shipping Address1 Empty	The field Shipping Address1 is required	Shipping address error in address1 field
10728	Shipping Address City Empty	The field Shipping Address City is required	Shipping address error in city field
10729	Shipping Address State Empty	The field Shipping Address State is required	Shipping address error in state field
10730	Shipping Address Postal Code Empty	The field Shipping Address Postal Code is required	Shipping address error in postal code
10731	Shipping Address Country Empty	The field Shipping Address Country is required	Country code is empty in shipping address
10736	Shipping Address Invalid City State Postal Code	A match of the Shipping Address City, State, and Postal Code failed.	Match of shipping address, city, state and postal code failed.
10747	Invalid Data	This transaction cannot be processed without a valid IP address.	IPAddress field is invalid.
10748	Invalid Data	This transaction cannot be processed without a Credit Card Verification number.	CVV2 field is missing.
10755	Unsupported Currency.	This transaction cannot be processed due to an unsupported currency.	
11302	Cannot pay self	The transaction was refused because you cannot send money to yourself.	Cannot pay self. Merchant is referencing own transaction.
11451	Billing Agreement Id or transaction Id is not valid	Billing Agreement Id or transaction Id is not valid	Invalid reference id
11451	Billing Agreement Id or transaction Id is not valid	Billing Agreement Id or transaction Id is not valid	Reference transaction is not associated with a billing agreement.
11451	Billing Agreement Id or transaction Id is not valid	Billing Agreement Id or transaction Id is not valid	Reference id either not found or could not be decrypted
11451	Billing Agreement Id or transaction Id is not valid	Billing Agreement Id or transaction Id is not valid	Reference id either not found or could not be decrypted
11452	Merchant not enabled for reference transactions	Merchant not enabled for reference transactions	This merchant is not enabled for Mark reference transaction
11453	Reference transactions temporarily unavailable.	Reference transaction feature not currently available; try again later	Feature wired off
11453	Reference transactions temporarily unavailable.	Reference transaction feature not currently available; try again later	Feature not supported in standin

*TABLE B.15 **All Reference Transactions-Related API Errors** (Continued)*

Error Code	Short Message	Long Message	Additional Information
11454	Warning: Could not send email to the buyer	Warning: Could not send email to the buyer	Failed to send email to buyer. This error is not fatal and generates a warning.
11459	Invalid Data	The shipping address must match the user's address in the PayPal account.	The shipping address on file does not match the requested shipping address.
18014	Gateway Decline	This transaction cannot be processed.	This transaction cannot be processed without a Credit Card Verification number.

DoNonReferencedCredit API Errors

The API errors returned by the `DoNonReferencedCredit` API are the same as those returned by the `DoDirectPayment` API. See "Direct Payment API Errors" on page 136 for more information.

Fraud Management Filters API Errors

Fraud Management Filters API errors consist of errors returned by the ManagePendingTransactionStatus API and FMF-related errors returned by the following APIs: BillUser, DoDirectPayment, DoExpressCheckoutPayment, and DoReferenceTransaction.

*TABLE B.2   **ManagePendingTransactionStatus API Errors***

Error Code	Short Message	Long Message
11614	Could not process your request to accept/deny the transaction	Could not process your request to accept/deny the transaction
11614	The transaction has already been Accepted/Denied and the status cannot be changed	The transaction has already been Accepted/Denied and the status cannot be changed

***TABLE* B.3** *FMF-Related API Errors for BillUser, DoDirectPayment, DoExpressCheckoutPayment, and DoReferenceTransaction*

Error Code	Short Message	Long Message
11610	Payment Pending your review in Fraud Management Filters	Payment Pending your review in Fraud Management Filters
11611	Transaction blocked by your settings in FMF	Transaction blocked by your settings in FMF
11612	Could not process your request to accept/deny the transaction	Could not process your request to accept/deny the transaction

C NVP API Web Samples

This chapter describes the NVP API Web Samples which access the NVP API directly. This section includes the following topics:

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-
-
-

Descriptions of the Samples

The web samples consist of the following:

-
-
-
-

The main page of the samples, index.html or Default.htm, contains links to each sample.

NOTE: We describe the code samples for all programming languages in this section. Language specific filenames are shown as *filename.ext*. For example, DoDirectPayment.*ext* stands for DoDirectPayment.java, DoDirectPayment.php, and so forth.

Charging a Credit Card Using Direct Payment

This sample shows how to use Direct Payment to charge a credit card. Access this sample from the following choices displayed on index.html or Default.htm:

DoDirectPayment - Sale	Charge a credit card.
	In the `DoDirectPayment` request, the `PAYMENTACTION` parameter is set to `Sale`.
DoDirectPayment - Authorization	Authorize a credit card for later sale.
	In the `DoDirectPayment` request, the `PAYMENTACTION` parameter is set to `Authorization`.

The primary files for this sample are:

TABLE C.1   Direct Payment Files

File	Description
DoDirectPayment.*ext*	This is the main web page for the DoDirectPayment sample. This page allows the user to enter name, address, amount, and credit card information. It also accept input variable `paymentType` which becomes the value of the PAYMENTACTION parameter. When the user clicks the Submit button, DoDirectPaymentReceipt.*ext* is called. Called by index.html or Default.htm. Calls DoDirectPaymentReceipt.*ext*.
DoDirectPaymentReceipt.*ext*	Submits a credit card transaction to PayPal using a `DoDirectPayment` request. The code collects transaction parameters from the form displayed by DoDirectPayment.*ext* then constructs and sends the DoDirectPayment request string to the PayPal server. The `paymentType` variable becomes the PAYMENTACTION parameter of the request string. After the PayPal server returns the response, the code displays the API request and response in the browser. If the response from PayPal was a success, it displays the response parameters. If the response was an error, it displays the errors. Called by DoDirectPayment.*ext*. Calls CallerService.*ext*.

Accepting PayPal in Express Checkout

This sample shows how to use Express Checkout to accept payments using PayPal. Access this sample from the following choices displayed on index.html or Default.htm:

ExpressCheckout - Sale	Do basic checkout with PayPal. In the `SetExpressCheckout` request, the PAYMENTACTION parameter is set to `Sale`.
ExpressCheckout - Authorization	Authorize for a single capture. In the `SetExpressCheckout` request, the PAYMENTACTION parameter is set to `Authorization`.
ExpressCheckout - Order	Authorize for multiple captures. In the `SetExpressCheckout` request, the PAYMENTACTION parameter is set to `Order`.

The primary files for this sample are:

TABLE C.2 Express Checkout Files

File	Description
SetExpressCheckout.*ext*	This is the main web page for the Express Checkout sample. The page allows the user to enter amount and currency type. It also accept input variable `paymentType` which becomes the value of the `PAYMENTACTION` parameter. When the user clicks the Submit button, ReviewOrder.*ext* is called. Called by index.html or Default.htm. Calls ReviewOrder.*ext*.
ReviewOrder.*ext*	This file is called after the user clicks on a button during the checkout process to use PayPal's Express Checkout. The user logs in to their PayPal account. This file is called twice. On the first pass, the code executes the if statement: if (! isset ($token)) The code collects transaction parameters from the form displayed by SetExpressCheckout.*ext* then constructs and sends a `SetExpressCheckout` request string to the PayPal server. The `paymentType` variable becomes the `PAYMENTACTION` parameter of the request string. The `RETURNURL` parameter is set to this file; this is how ReviewOrder.*ext* is called twice. On the second pass, the code executes the else statement. On the first pass, the buyer completed the authorization in their PayPal account; now the code gets the payer details by sending a `GetExpressCheckoutDetails` request to the PayPal server. Then the code calls GetExpressCheckoutDetails.*ext*. **NOTE:** Be sure to check the value of `PAYPAL_URL`. The buyer is sent to this URL to authorize payment with their PayPal account. For testing purposes, this should be set to the PayPal sandbox. Called by SetExpressCheckout.*ext*. Calls GetExpressCheckoutDetails.*ext*, CallerService.*ext*, and Display.*ext*.
GetExpressCheckoutDetails.*ext*	This functionality is called after the buyer returns from PayPal and has authorized the payment. Displays the payer details returned by the `GetExpressCheckoutDetails` response and calls DoExpressCheckoutPayment.*ext* to complete the payment authorization. Called by ReviewOrder.*ext*. Calls DoExpressCheckoutPayment.*ext* and CallerService.*ext*.

TABLE C.2   *Express Checkout Files*

File	Description
DoExpressCheckoutPayment.*ext*	This functionality is called to complete the payment with PayPal and display the result to the buyer.
	The code constructs and sends the `DoExpressCheckoutPayment` request string to the PayPal server.
	Called by GetExpressCheckoutDetails.*ext* and CallerService.*ext*.

Getting Transaction Details

This sample shows how to use the GetTransactionDetails request. Access this sample from the following choice displayed on index.html or Default.htm:

GetTransactionDetails   Gets transaction details for a specific transaction ID.

The main page displays a text box where the user enters a transaction ID. When the user clicks the Submit button, the code constructs an NVP API request to `GetTransactionDetails` and sends it to the PayPal server.

The primary files for this sample are:

TABLE C.3   *Get Transaction Details Files*

File	Description
GetTransactionDetails.*ext*	This is the main page for GetTransactionDetails sample. This page displays a text box where the user enters a transaction ID and a Submit button that calls TransactionDetails.*ext*.
	Calls TransactionDetails.*ext*.
TransactionDetails.*ext*	Sends a `GetTransactionDetails` NVP API request to PayPal.
	The code retrieves the transaction ID and constructs the NVP API request string to send to the PayPal server. The request to PayPal uses an API signature.
	After receiving the response from the PayPal server, the code displays the request and response in the browser. If the response was a success, it displays the response parameters. If the response was an error, it displays the errors received.
	Called by GetTransactionDetails.html.

Common Files

The following files are common to the samples.

TABLE C.4   Common Files

File	Description
index.html Default.htm	The main web page with links to each sample. Calls DoDirectPayment.*ext*, SetExpressCheckout.*ext*, and GetTransactionDetails.html.
sdk.css	Cascading Style Sheet (CSS) used by index.html or Default.htm.
CallerService.*ext*	This is the configuration file for the samples. This file contains the parameters needed to make an API call. The samples come with an API signature for making API calls to the PayPal sandbox. The API signature is described in "Sample API User with API Signature" on page 201. Called by TransactionDetails.*ext*, ReviewOrder.*ext*, DoDirectPaymentReceipt.*ext*, and Display.*ext*.
Display.*ext*	Displays request and response parameters. If there is an error, displays request and error parameters. Called by DoDirectPaymentReceipt.*ext*, TransactionDetails.*ext*, and DoExpressCheckoutPayment.*ext*.

Sample API User with API Signature

The samples come with an API signature for use with the samples and the PayPal Sandbox. This API signature belongs to the following user:

TABLE C.5   Details of the Sample API Signature

API username	`sdk-three_api1.sdk.com`
API password	`QFZCWN5HZM8VBG7Q`
API signature	`A-IzJhZZjhg29XQ2qnhapuwxIDzyAZQ92FRP5dqBzVesOkzbdUONzmOU`

IMPORTANT: You must protect the API signature values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user executing your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

Samples Using Classic ASP

This section contains information for configuring and running the NVP API Web Samples Using Classic ASP.

Required Software

No additional software is required.

Download and Unzip the Samples

The latest version of the Web Samples are available at https://www.paypal.com/IntegrationCenter/ic_nvp.html.

1. Download the zipfile distribution.

2. Unzip the zipfile to any directory of you choose.

Installing the Samples

The samples must be installed in IIS. The samples require IIS version 5.1 or above.

Create a virtual directory named `PayPalClassicAspNvpSamples` in IIS that points to *Samples_Root*.

Running the Samples

First, make sure that you have installed the required software and the samples.

You can run the samples by entering the following address in a web browser:

`http://`***name_of_Server:port***`/PayPalClassicAspNvpSamples/Default.htm`

Samples Using PHP

This section contains information for configuring and running the NVP API Web Samples Using PHP.

Required Software

The following software is required:

TABLE C.6   Required Software

Software	Version	Download Location
PHP with CURL extension enabled	4.4.2 or greater	
Apache HTTP Server	1.3.17 or greater	http://httpd.apache.org/

You must install and configure PHP with the Apache HTTP Server.

Download and Unzip the Samples

The latest version of the Web Samples are available at
https://www.paypal.com/IntegrationCenter/ic_nvp.html.

1. Download the zipfile distribution.

2. Unzip the zipfile to any directory of you choose.

Installing the Samples

Copy the sample folder, `php_nvp_samples`, to the docroot of the Apache HTTP Server. By default docroot is in *datadir*`/htdocs`.

Running the Samples

First, make sure that you have installed the required software and the samples.

You can run the samples by entering the following address in a web browser:

`http://`***name_of_Apache_HTTP_Server:port***`/php_nvp_samples/index.html`

Samples Using ColdFusion

This section contains information for configuring and running the NVP API Web Samples Using ColdFusion.

Required Software

The following software is required:

TABLE C.7   Supported Standards

Standard	Version	Download Location
ColdFusion	7.x MX	http://www.adobe.com/products/coldfusion/

Download and Unzip the Samples

The latest version of the Web Samples are available at
https://www.paypal.com/IntegrationCenter/ic_nvp.html.

1. Download the zipfile distribution.

2. Unzip the zipfile to any directory of you choose.

Installing the Samples

NOTE: The samples assume that ColdFusion is running on Microsoft Windows.

Copy the sample folder to your ColdFusion application server web document root,
ColdFusionMX7_root_directory\wwwroot.

Running the Samples

First, make sure that you have installed the required software and the samples.

You can run the samples by entering the following address in a web browser:

http://*name_of_Server:port*/cf_nvp_samples/index.html

D

The Java SDK

This section describes how to use the Java SDK for the NVP API and includes the following topics:

Installing the Java SDK

This section details the software and hardware supported and required by the PayPal SDK, installation, and post-installation tasks.

Supported Standards

The PayPal SDK has been verified to work with the following standards.

TABLE D.1   Supported Standards

Standard	Version
Java Runtime Environment	1.4.2 or greater

Supported Human Languages

The PayPal SDK is available in U.S. English.

SDK Version Number

This guide describes PayPal Java SDK version 5.1.1.

Recommended Hardware Configuration

The minimum hardware requirements for using the PayPal SDK in development and test are listed below. Production systems might require more capacity, depending on their expected load.

TABLE D.2   Recommended Hardware Configuration

Component	Minimum Capacity
RAM	256 MB

TABLE D.2   Recommended Hardware Configuration

Component	Minimum Capacity
CPU	Pentium 1 GHz
Disk space	50 MB

Download and Unzip the SDK

The latest version of the PayPal SDK is available at
https://www.paypal.com/IntegrationCenter/ic_nvp.html.

1. Download the zipfile distribution.

2. Unzip the zipfile to any directory of you choose.

NOTE: We refer to the directory in which you choose to extract the SDK as: *SDK_root*.

Post-installation Set-up

This section details steps you must take before you start using the PayPal SDK.

Adding SDK JAR Files to CLASSPATH

Before developing applications with the Java SDK, be sure to add the SDK JAR files in
SDK_root/lib to your CLASSPATH environment variable.

SDK Directories and Optional Configurations

The Java SDK components are organized into different subdirectories, as shown in Table D.3,
"PayPal SDK for Java: Directories and Contents."

TABLE D.3   PayPal SDK for Java: Directories and Contents

Directory	Descrption
cert	PayPal public certificates for Live PayPal and PayPal Sandbox
docs	SDK API documentation
lib	SDK libraries
licenses	License files
samples	Example code that use the SDK.
src	SDK source code
tools	Third-party applications

Complete SDK and API Class Documentation

Complete Javadoc documentation for all PayPal SDK interfaces, classes, methods, structures, and data types are included with the SDK distribution. To view the documentation, open the following file with your web browser:

SDK_root/docs/index.html

SDK Logging

The PayPal SDK uses log4j public domain logging software. For complete information, see the documentation at http://logging.apache.org/log4j/docs/

Setting Log Levels

Set the value of the level element in SDK_root/lib/log4j.properties.

***TABLE D.4**   SDK Logging Levels*

Level	Description
ALL	Same as `DEBUG`
ERROR	Log only severe errors
INFO	Date/time of API operation, operation name, elapsed time, success or failure indication
DEBUG	Full text of requests and responses and other debugging messages. Because `DEBUG` logging can degrade the performance of the SDK, be careful about using it for day-to-day operation. **NOTE:** Because requests and responses are asynchronous, the recording of requests and responses might appear out of sequence in the log file.

Logfile Backup

The default size of the SDK log is 10MB. You can set this size larger or smaller with the value of `param name="MaxFileSize"` in `log4j.properties`. When the log file reaches its maximum size, a backup file is created and a new logfile begins.

Profiles

Before the SDK can be used, it must know the profile of the user accessing its services. A profile is a collection of information about a merchant or developer who uses the PayPal SDK. An API profile is associated with API Services and includes:

- A PayPal API username and password.
- If you are using API certificates, the path to the API certificate in P12 format and the private key password to that certificate.

- If you are using API signatures, the signature string.

- The optional name of a third-party who authorizes the caller to invoke PayPal APIs on his behalf. This third-party is called a subject

- The PayPal environment for processing API calls: live or sandbox.

An EWP profile is associated with EWP Services includes:

- The path to the merchant's local copy of that public certificate

- The private key password for that public certificate

- The path to a merchant's private key file for digitally signing data

- The URL to which the button form POSTs

- The optional URL of a payment button image. The default is PayPal's standard Buy Now button.

For more information about how EWP works, see the Website Payments Standard Integration Guide, available at
https://www.paypal.com/en_US/pdf/PP_WebsitePaymentsStandard_IntegrationGuide.pdf.

Overview to Profile-related Classes

The primary interfaces and classes for SDK profiles are described in Table D.5, "Interface and Classes for SDK Profiles," on page 208

TABLE D.5   Interface and Classes for SDK Profiles

Interface/Class	Descriptions
APIProfile interface	This interface defines the basic information that PayPal needs to know about a user of the PayPal Web Service APIs. Developers must create an instance of APIProfile for each account that accesses the APIs. For single-merchant developers, only a single APIProfile instance is needed. PayPal provides two implementation classes suitable for the needs of most SDK developers: CertificateAPIProfile and SignatureAPIProfile. However, you are free to write a custom implementation if you need additional functionality the default classes do not offer.
EWPProfile interface	This interface defines the basic information that PayPal needs to know about a user of PayPal's Encrypted Website Payments (EWP) service. Developers must create an instance of EWPProfile for each account that generates the encrypted button code; for single-merchant users this will just be a single instance). PayPal provides a basic implementation class called DefaultEWPProfile suitable for the needs of most SDK developers. However, you are free to write a custom implementation if you need functionality the default class does not offer.

TABLE D.5   Interface and Classes for SDK Profiles

Interface/Class	Descriptions
ProfileFactory class	This class creates both APIProfile and EWPProfile objects. It contains static methods that handle the instantiation and construction of profile objects.
Profiles class	This data class represents all profiles the SDK knows about. It contains two collections, one for APIProfiles and one for EWPProfiles. This class is provided to ProfileHandler to save profile data and returned from ProfileHandler to retrieve profile data.

Sample Applications

The PayPal SDK includes sample applications in the *SDK_root*/`samples` directory. Each subdirectory comes with a README file that explains how to set up the application.

TABLE D.6   PayPal SDK for Java: Sample Code in SDK_root/samples

Subdirectory	Descrption
`Cert`	API certificates used by the sample applications
`JSP`	JavaScript implementation for Apache Tomcat of the following PayPal APIs: ● Direct Payment for final sale and for authorization ● Express Checkout for final sale, authorization, and order ● TransactionSearch ● GetTransactionDetails ● RefundTransaction ● DoCapture ● DoVoid ● MassPay ● DoReauthorization

Sample API User with API Signature

The samples come with an API signature for use with the samples and the PayPal Sandbox. This API signature belongs to the following user:

TABLE D.7   Details of the Sample API Signature

API username	`sdk-three_api1.sdk.com`
API password	`QFZCWN5HZM8VBG7Q`
API signature	`A-IzJhZZjhg29XQ2qnhapuwxIDzyAZQ92FRP5dqBzVesOkzbdUONzmOU`

IMPORTANT: You must protect the API signature values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user executing your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

Sample API User with API Certificate

The samples come with an API digital certificate for use with the SDK and the PayPal Sandbox. This certificate belongs to the following user:

TABLE D.8   *Details of the SDK Sample API Certificate*

Location of Certificate	*SDK_root*\samples\Certs\sdk-seller.p12
API Username	sdk-seller_api1.sdk.com
API Password	12345678
PKCS12 Passphrase	password

IMPORTANT: You must protect the API Certificate values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user executing your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

E The ASP.NET SDK

This section describes how to use the ASP.NET SDK for the NVP API and includes the following topics:

- "Installing the ASP.NET SDK" on page 211
- "Profiles" on page 215
- "Sample Applications" on page 216

Installing the ASP.NET SDK

This section details the software and hardware supported and required by the PayPal SDK, installation, and post-installation tasks.

Supported Standards

The PayPal SDK has been verified to work with the following standards.

TABLE E.1   Supported Standards

Standard	Version
Microsoft .NET Framework	1.1, Service Pack 1

Supported Human Languages

The PayPal SDK is available in U.S. English.

SDK Version Number

This guide describes PayPal ASP.NET SDK version 5.1.1.

Minimum Hardware Requirements

The following table lists the minimum hardware requirements for using the PayPal SDK in development and test. Production systems might require more capacity, depending on their expected load.

TABLE E.2   Minimum System Hardware Requirements

Component	Minimum Capacity
RAM	256 MB
CPU	Pentium 1 GHz

TABLE E.2   Minimum System Hardware Requirements

Component	Minimum Capacity
Disk space	50 MB

Required: Microsoft .NET Framework 1.1, Service Pack 1

IMPORTANT: The PayPal SDK requires Service Pack 1 for Microsoft .NET Framework 1.1. You can get Service Pack 1 from the Microsoft web site.

Downloading and Installing the SDK

The latest version of the PayPal SDK is available at https://www.paypal.com/IntegrationCenter/ic_nvp.html. You can download either a self-extracting installation program or a zipfile distribution.

The installation is straightforward and requires no special instruction. You have the option to install the SDK source, if you like.

Post-installation Set-up

This section details steps to take before you start using the PayPal SDK.

Referencing the SDK DLLs

Before developing applications with the SDK, be sure to add references in your ASP.NET projects to the SDK dynamic load libraries (DLLs) in *SDK_root*\bin.

Installing the Samples

The SDK comes with sample applications for your study and use. These samples can be installed in Microsoft Internet Information Server (IIS). For more information about the samples, see "Sample Applications" on page 216. For more information about installing in IIS, see "Installing the Samples in IIS" on page 218.

SDK Directories and Optional Configurations

The SDK components are organized into different subdirectories, as shown in Table E.3, "PayPal SDK Directories and Contents."

TABLE E.3   PayPal SDK Directories and Contents

Directory	Descrption
bin	Compiled SDK DLLs
docs	Ndoc class documentation and SDK guide
samples\ASPNET	Example code that use the SDK, in subdirectories

TABLE E.3   PayPal SDK Directories and Contents

Directory	Descrption
`samples\cert`	`sdk-seller.p12` API certificate for API user `sdk-seller_api1.sdk.com`
`src`	Visual Studio project files and SDK source files. This folder is present only if you installed the source of the SDK.

Optional Custom Configurations in Web.config

You can add optional custom settings to the `Web.config` file.

Adding PayPal Settings

First, add a `<section name="paypal">` tag, as shown below. The section must be enclosed in `<configSections>` that comes immediately after the top-level `<configuration>` tag.

```
<configuration>
    <configSections>
        <section name="paypal"
          type="com.paypal.sdk.core.ConfigSectionHandler, paypal_base"/>
    <configSections>
```

The optional custom settings themselves are in a `<paypal>` block later in the file:

```
<paypal>
    ... custom settings ...
</paypal>
```

SDK Logging

The PayPal SDK uses log4net public domain logging software. For information about log4net, see the log4net documentation at http://logging.apache.org/log4net/release/manual/introduction.html.

This section describes SDK logging levels, in which configuration files you set the desired level, and request logging.

Log Levels

The SDK varies the amount of detail it records according to four

logging levels.

TABLE E.4   SDK Logging Levels

Level	Description
ALL	Same as `DEBUG`
ERROR	Log only severe errors

TABLE *E.4*   *SDK Logging Levels*

Level	Description
INFO	Date/time of API operation, operation name, elapsed time, success or failure indication
DEBUG	Full text of requests and responses and other debugging messages. DEBUG logging can degrade the performance of the SDK. Be careful about using it for day-to-day operation. **NOTE:** Because requests and responses are asynchronous, the recording of requests and responses might appear out of sequence in the log file.

Setting SDK Log Levels

To enable logging for your SDK-based web applications, add the following lines inside the <configuration> block of the Web.config file. You can copy these lines from the *SDK_root*\samples\ASPNET\Web.config file.

- You might want to change the value of the file element to write log records to a location you prefer.

- Set the value of the level element to the desired detail described in Table E.4, "SDK Logging Levels."

```
<configSections>
    <section name="log4net"
     type="log4net.Config.Log4NetConfigurationSectionHandler,log4net"/>
</configSections>
<log4net>
    <appender name="PAYPALLOGFILE"
type="log4net.Appender.RollingFileAppender">
        <file value="logs/paypal.sdk.log" />
        <appendToFile value="true" />
        <encoding value="UTF-8" />
        <rollingStyle value="5" />
        <maxSizeRollBackups value="10" />
        <maximumFileSize value="10MB" />
        <staticLogFileName value="true" />
        <layout type="log4net.Layout.PatternLayout">
           <conversionPattern
               value="%d{dd MMM yyyy HH:mm:ss} %-5p [%C{1}] %m%n" />
        </layout>
    </appender>
<logger name="com.paypal.sdk">
        <level value="ALL" />
        <appender-ref ref="PAYPALLOGFILE" />
    </logger>
</log4net>
```

Enabling Proxy Support

If your application is behind a proxy server, you must enable proxy support in the `Web.config` file. For details on how to use the `system.net` element in the `Web.config` file, please refer to [Configuring Internet Applications](#) in the [MSDN Library](#).

Uninstalling the SDK

To uninstall the SDK, use the Microsoft Windows control panel **Add/Remove Programs**.

Complete SDK and API Class Documentation

Complete Microsoft .NET Ndoc documentation for all PayPal SDK interfaces, classes, methods, structures, and data types are included with the SDK distribution. To view the documentation, open the following file with your web browser:

`SDK_root/docs/PayPalBaseAPI.chm`

Profiles

Before the SDK can be used, it must know the profile of the user accessing its services. A profile is a collection of information about a merchant or developer who uses the PayPal SDK. An API profile is associated with API Services and includes:

- A PayPal API username and password.
- If you are using API certificates, the path to the API certificate in P12 format and the private key password to that certificate.
- If you are using API signatures, the signature string.
- The optional name of a third-party who authorizes the caller to invoke PayPal APIs on his behalf. This third-party is called a subject.
- The PayPal environment for processing API calls: live or sandbox.

An EWP profile is associated with EWP Services includes:

- The path to the merchant's local copy of that public certificate
- The private key password for that public certificate
- The path to a merchant's private key file for digitally signing data
- The URL to which the button form POSTs
- The optional URL of a payment button image. The default is PayPal's standard Buy Now button.

For more information about how EWP works, see the Website Payments Standard Integration Guide, available at https://www.paypal.com/en_US/pdf/PP_WebsitePaymentsStandard_IntegrationGuide.pdf.

Overview to Profile-related Classes

The primary interfaces and classes for SDK profiles are described in Table E.5, "Summary of ASP.NET SDK Profile-related Interfaces and Classes."

TABLE E.5   Summary of ASP.NET SDK Profile-related Interfaces and Classes

Interface/Class	Description
IAPIProfile interface	This interface defines the basic information that PayPal needs to know about a user of the PayPal Web Service APIs. Developers must create an instance of IAPIProfile for each account that accesses the APIs. For single-merchant developers, only a single IAPIProfile instance is needed. PayPal provides a default implementation class called DefaultAPIProfile suitable for the needs of most SDK developers. However, you are free to write a custom implementation if you need additional functionality the default class does not offer.
ProfileFactory class	This class creates the IAPIProfile object. It contains static methods that handle the instantiation and construction of profile objects.
EWPProfile interface	This interface defines the basic information that PayPal needs to know about a user of PayPal's Encrypted Website Payments (EWP) service. Developers must create an instance of EWPProfile for each account that generates the encrypted button code; for single-merchant users this will just be a single instance). PayPal provides a basic implementation class called DefaultEWPProfile suitable for the needs of most SDK developers. However, you are free to write a custom implementation if you need functionality the default class does not offer.

Sample Applications

The PayPal SDK includes sample applications in the *SDK_root*\samples\ASPNET folder. The samples\ASPNET folder is divided into subfolders by products.

TABLE E.6   Samples by Product

Subfolder in SDK_Root\samples\ASPNET	Products
admin	DoCapture

TABLE E.6   Samples by Product

Subfolder in SDK_Root\samples\ASPNET	Products
	DoVoid
	GetTransactionDetails
	MassPay
	RefundTransaction
	TransactionSearch
	DoReauthorization
wppro	Express Checkout • Final Sale • Authorization • Order
	Direct Payment API • Final Sale • Authorization

Sample API User with API Signature

The samples come with an API signature for use with the samples and the PayPal Sandbox. This API signature belongs to the following user:

TABLE E.7   Details of the Sample API Signature

API username	`sdk-three_api1.sdk.com`
API password	`QFZCWN5HZM8VBG7Q`
API signature	`A-IzJhZZjhg29XQ2qnhapuwxIDzyAZQ92FRP5dqBzVesOkzbdUONzmOU`

IMPORTANT: You must protect the API signature values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user executing your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

Sample API User with API Certificate

The samples come with an API digital certificate for use with the SDK and the PayPal Sandbox. This certificate belongs to the following user:

TABLE *E.8*   *Details of the SDK Sample API Certificate*

Location of Certificate	*SDK_root*\samples\Certs\sdk-seller.p12
API Username	sdk-seller_api1.sdk.com
API Password	12345678
PKCS12 Passphrase	password

IMPORTANT: You must protect the API Certificate values in your implementation. Consider storing these values in a secure location other than your web server document root and setting the file permissions so that only the system user executing your ecommerce application can access it.

The sample code does not store these values securely. *The sample code should never be used in production.*

Installing the Samples in IIS

NOTE: Be sure that you are logged in as an administrator, that IIS running, and that WinHttpCertCfg.exe is in your PATH.

To install the samples in Microsoft IIS:

1. Run *SDK_root*\samples\ASPNET\InstallSample.bat.

2. To enable logging, change the permissions on the *localComputerName*\ASPNET folder to Full Control.

InstallSample.bat does the following:
– Creates a virtual directory named PaypalASPNETSample in IIS that points to *SDK_root*\samples\ASPNET.
– Loads the sample API certificate *SDK_root*\samples\Certs\sdk-seller.p12 into the Microsoft Windows system store.
– Uses the WinHttpCertCfg.exe command to grant unlimited access for account Everyone to that certificate.

Running the Samples

To run the samples, in Internet Explorer, open the following URL:
http://localhost/PaypalASPNETSamples.

F The Ruby on Rails SDK

The PayPal Ruby on Rails SDK eases the process of integrating PayPal's financial services into your application by providing a small footprint of three files: caller.rb, profile.rb, and utils.rb. The packages comes with web samples written for Ruby on Rails that illustrate how to use PayPal NVP Web Services API, including examples for Direct Credit Card Payment, Express Checkout, TransactionSearch, Refund, Void, and Capture.

This section describes how to use the Ruby on Rails SDK for the NVP API and includes the following topics:

Installing the Ruby on Rails SDK

This section details the software and hardware supported and required by the PayPal Ruby on Rails SDK and installation tasks.

Supported Standards

The PayPal Ruby on Rails SDK has been verified to work with the following standards.

NOTE: The SDK code has been developed and tested using the versions listed below. However, the SDK may also work with earlier versions.

TABLE F.1   Supported Standards

Standard	Version
Ruby on Rails	1.8.6 or greater
Ruby on Rails	1.2.3

Supported Human Languages

The PayPal Ruby on Rails SDK is available in U.S. English.

SDK Version Number

This guide describes PayPal Ruby on Rails SDK version 1.0.

Recommended Hardware Configuration

The minimum hardware requirements for using the PayPal SDK in development and test are listed below. Production systems might require more capacity, depending on their expected load.

TABLE F.2   Recommended Hardware Configuration

Component	Minimum Capacity
RAM	256 MB
CPU	Pentium 1 GHz
Disk space	50 MB

Installing the SDK

1. Download the zip file distribution.

2. Unzip the zip file to any directory. We refer to the directory in which you choose to extract the SDK as: *SDK_root*.

3. At a command prompt, change directory (cd) to *SDK_root*.

4. Type `ruby script/server`. The following will be displayed after ther server starts:

```
** WEBRick available at 0.0.0.0:3000
```

5. Open a browser and enter `http://<IP-Address>:3000` on the address bar, where `<IP-Address>` is the IP address of your machine. Hit **Return**.

Sample Applications

Unit tests for the DoDirectPayment and GetTransactionDetails APIs are located in the following file:

SDK_root`/test/unit/dcc_unit.rb`

The unit tests also provide examples of how to make PayPal API calls. For example, the following code snippet illustrates how to call GetTransactionDetails:

```
req = { :method => 'gettransactionDetails',
   :transactionid => '20P46879S1049380U'
   }
   @contents, @data = @caller.call(req)
   @response = CGI::parse(@data)
```

Proxy Support

Proxy support has been added for environments behind an HTTP proxy. If calls need to made via a proxy sever, set the following in the `@proxy_info` hash in the profile class:

TABLE F.3   Proxy Settings

Variable	Value
USE_PROXY	True
ADDRESS	The IP address of the proxy server
PORT	The port number of the proxy server

G Country Codes

Table 1: Country Codes

Country	Code
AFGHANISTAN	AF
ÅLAND ISLANDS	AX
ALBANIA	AL
ALGERIA	DZ
AMERICAN SAMOA	AS
ANDORRA	AD
ANGOLA	AO
ANGUILLA	AI
ANTARCTICA	AQ
ANTIGUA AND BAR-BUDA	AG
ARGENTINA	AR
ARMENIA	AM
ARUBA	AW
AUSTRALIA	AU
AUSTRIA	AT
AZERBAIJAN	AZ
BAHAMAS	BS
BAHRAIN	BH
BANGLADESH	BD
BARBADOS	BB

Country	Code
BELARUS	BY
BELGIUM	BE
BELIZE	BZ
BENIN	BJ
BERMUDA	BM
BHUTAN	BT
BOLIVIA	BO
BOSNIA AND HERZE-GOVINA	BA
BOTSWANA	BW
BOUVET ISLAND	BV
BRAZIL	BR
BRITISH INDIAN OCEAN TERRITORY	IO
BRUNEI DARUSSALAM	BN
BULGARIA	BG
BURKINA FASO	BF
BURUNDI	BI
CAMBODIA	KH
CAMEROON	CM
CANADA	CA
CAPE VERDE	CV
CAYMAN ISLANDS	KY

Country	Code
CENTRAL AFRICAN REPUBLIC	CF
CHAD	TD
CHILE	CL
CHINA	CN
CHRISTMAS ISLAND	CX
COCOS (KEELING) ISLANDS	CC
COLOMBIA	CO
COMOROS	KM
CONGO	CG
CONGO, THE DEMO-CRATIC REPUBLIC OF THE	CD
COOK ISLANDS	CK
COSTA RICA	CR
COTE D'IVOIRE	CI
CROATIA	HR
CUBA	CU
CYPRUS	CY
CZECH REPUBLIC	CZ
DENMARK	DK
DJIBOUTI	DJ
DOMINICA	DM
DOMINICAN REPUBLIC	DO
ECUADOR	EC
EGYPT	EG
EL SALVADOR	SV

Country	Code
EQUATORIAL GUINEA	GQ
ERITREA	ER
ESTONIA	EE
ETHIOPIA	ET
FALKLAND ISLANDS (MALVINAS)	FK
FAROE ISLANDS	FO
FIJI	FJ
FINLAND	FI
FRANCE	FR
FRENCH GUIANA	GF
FRENCH POLYNESIA	PF
FRENCH SOUTHERN TERRITORIES	TF
GABON	GA
GAMBIA	GM
GEORGIA	GE
GERMANY	DE
GHANA	GH
GIBRALTAR	GI
GREECE	GR
GREENLAND	GL
GRENADA	GD
GUADELOUPE	GP
GUAM	GU
GUATEMALA	GT
GUERNSEY	GG

Country	Code	Country	Code
GUINEA	GN	KOREA, REPUBLIC OF	KR
GUINEA-BISSAU	GW	KUWAIT	KW
GUYANA	GY	KYRGYZSTAN	KG
HAITI	HT	LAO PEOPLE'S DEMO-CRATIC REPUBLIC	LA
HEARD ISLAND AND MCDONALD ISLANDS	HM	LATVIA	LV
HOLY SEE (VATICAN CITY STATE)	VA	LEBANON	LB
		LESOTHO	LS
HONDURAS	HN	LIBERIA	LR
HONG KONG	HK	LIBYAN ARAB JAMA-HIRIYA	LY
HUNGARY	HU		
ICELAND	IS	LIECHTENSTEIN	LI
INDIA	IN	LITHUANIA	LT
INDONESIA	ID	LUXEMBOURG	LU
IRAN, ISLAMIC REPUB-LIC OF	IR	MACAO	MO
IRAQ	IQ	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	MK
IRELAND	IE		
ISLE OF MAN	IM	MADAGASCAR	MG
ISRAEL	IL	MALAWI	MW
ITALY	IT	MALAYSIA	MY
JAMAICA	JM	MALDIVES	MV
JAPAN	JP	MALI	ML
JERSEY	JE	MALTA	MT
JORDAN	JO	MARSHALL ISLANDS	MH
KAZAKHSTAN	KZ	MARTINIQUE	MQ
KENYA	KE	MAURITANIA	MR
KIRIBATI	KI	MAURITIUS	MU
KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	KP	MAYOTTE	YT
		MEXICO	MX

Country	Code
MICRONESIA, FEDER-ATED STATES OF	FM
MOLDOVA, REPUBLIC OF	MD
MONACO	MC
MONGOLIA	MN
MONTSERRAT	MS
MOROCCO	MA
MOZAMBIQUE	MZ
MYANMAR	MM
NAMIBIA	NA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NETHERLANDS ANTI-LLES	AN
NEW CALEDONIA	NC
NEW ZEALAND	NZ
NICARAGUA	NI
NIGER	NE
NIGERIA	NG
NIUE	NU
NORFOLK ISLAND	NF
NORTHERN MARIANA ISLANDS	MP
NORWAY	NO
OMAN	OM
PAKISTAN	PK

Country	Code
PALAU	PW
PALESTINIAN TERRI-TORY, OCCUPIED	PS
PANAMA	PA
PAPUA NEW GUINEA	PG
PARAGUAY	PY
PERU	PE
PHILIPPINES	PH
PITCAIRN	PN
POLAND	PL
PORTUGAL	PT
PUERTO RICO	PR
QATAR	QA
REUNION	RE
ROMANIA	RO
RUSSIAN FEDERATION	RU
RWANDA	RW
SAINT HELENA	SH
SAINT KITTS AND NEVIS	KN
SAINT LUCIA	LC
SAINT PIERRE AND MIQUELON	PM
SAINT VINCENT AND THE GRENADINES	VC
SAMOA	WS
SAN MARINO	SM

Country	Code	Country	Code
SAO TOME AND PRINCIPE	ST	TANZANIA, UNITED REPUBLIC OF	TZ
SAUDI ARABIA	SA	THAILAND	TH
SENEGAL	SN	TIMOR-LESTE	TL
SERBIA AND MONTENEGRO	CS	TOGO	TG
		TOKELAU	TK
SEYCHELLES	SC	TONGA	TO
SIERRA LEONE	SL	TRINIDAD AND TOBAGO	TT
SINGAPORE	SG		
SLOVAKIA	SK	TUNISIA	TN
SLOVENIA	SI	TURKEY	TR
SOLOMON ISLANDS	SB	TURKMENISTAN	TM
SOMALIA	SO	TURKS AND CAICOS ISLANDS	TC
SOUTH AFRICA	ZA		
SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS	GS	TUVALU	TV
		UGANDA	UG
		UKRAINE	UA
SPAIN	ES	UNITED ARAB EMIRATES	AE
SRI LANKA	LK		
SUDAN	SD	UNITED KINGDOM	GB
SURINAME	SR	UNITED STATES	US
SVALBARD AND JAN MAYEN	SJ	UNITED STATES MINOR OUTLYING ISLANDS	UM
SWAZILAND	SZ	URUGUAY	UY
SWEDEN	SE	UZBEKISTAN	UZ
SWITZERLAND	CH	VANUATU	VU
SYRIAN ARAB REPUBLIC	SY	VENEZUELA	VE
		VIET NAM	VN
TAIWAN, PROVINCE OF CHINA	TW	VIRGIN ISLANDS, BRITISH	VG
TAJIKISTAN	TJ		

Country	Code
VIRGIN ISLANDS, U.S.	VI
WALLIS AND FUTUNA	WF
WESTERN SAHARA	EH
YEMEN	YE
ZAMBIA	ZM
ZIMBABWE	ZW

Index