



Web Services API Reference

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Preface

This Document

This document, *PayPal Web Services API Reference*, which describes the PayPal Web Services Application Programming Interface (API) and service, replaces *PayPal API Reference* issued June, 2005.

Intended Audience

This document is written for programmers familiar with Web Services application programming standards such as the Simple Object Access Protocol (SOAP), the Web Services Description Language (WSDL), and XML Schema Definition (XSD) language.

Organization of This Document

Chapter 1, “Overview of the PayPal Web Services API,” presents high-level information about the purposes of the API, supported development environments, and usage limits and fees.

Chapter 2, “PayPal Web Services API Architecture,” describes the architecture of the API services, its security features, the PayPal SOAP and WSDL implementations, and data characteristics, such as character encodings, currency and date/time formats, and other information.

The central chapters describe individual PayPal Web Services APIs for a variety of business functions.

Appendix A, “Error Codes and Messages for All PayPal APIs,” details specific errors and warnings for each individual PayPal Web Services API.

Notational Conventions

This document uses typefaces to identify the characteristics of text. These typefaces and the characteristics they imply are described below:

Typeface	How Used
<i>serif italics</i>	A document title.
	A term being discussed or defined. For example: A <i>file</i> is a readable or writable stream of characters ...
	Boolean values (not keywords). For example: The function returns <i>true</i> if it encounters an error.

Typeface	How Used
monospaced	<p>Pathnames or file names that appear in body text frames.</p> <p>Code-related names that appear in body text frames. Such names are used for functions, callbacks, arguments, data structures, and fields.</p> <p>For example: <code>AbstractResponseType</code> is the SOAP response type definition on which all PayPal API response methods are based.</p> <p>Components of Internet protocol requests and responses, such as HTTPS and FORM variables.</p> <p>For example: The PayPal system uses a <code>method=POST</code> request to return IPN status variables related to subscriptions, such as <code>txn_type</code>.</p>
Serif bold	<p>User interface names, such as window names or menu selections.</p> <p>For example: On the Profile page, click Email to confirm your email address</p>
<i>San-serif oblique</i>	<p>Placeholders used in the context of a format or programming standard or formal descriptions of PayPal system syntax. Placeholders indicate values or names that the reader should provide.</p> <p>Example: For example, <code>amount</code> is the variable for a single-item shopping cart, but <code>amount_X</code> is the name of the variable for a multi-item shopping cart. <code>amount_3</code> is the item amount for the third item in a multiple-item shopping cart.</p>

To convey additional information, this document may also apply color and underlining to words or phrases that use the typefaces described above. Such use is described below:

Text attribute	How Used
xxxxxx	Hypertext link to a page in the current document or to another document in the set.
xxxxxx	Hypertext link to a URL or that initiates a web action, such as sending mail.

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4. Complete the form.

1

Overview of the PayPal Web Services API

The PayPal Web Services API provides programmatic access to PayPal features and services. Developers can build custom applications, tools, and services that correspond to the same services and tools available through the main PayPal website, <https://www.paypal.com/>. Typical applications include searching for transactions, paying *en masse*, and making refunds.

Complementary Documentation

The *PayPal Sandbox User Guide*, the *PayPal SDK Guides*, and the *PayPal Web Services API Reference* are complementary documentation.

NOTE: Users of the PayPal Web Services API and the PayPal SDK need all three of these guides.

- The *PayPal Sandbox User Guide* (https://www.paypal.com/en_US/pdf/PP_Sandbox_UserGuide.pdf) is for merchants and third-party developers who need to write and test their PayPal applications. It describes how to access PayPal's virtual testing environment (called "the Sandbox"), with information about the following:
 - How to get digital certificates for securely using the Sandbox, the live PayPal Web Services API service
 - Different types of business roles for effective use of the Sandbox and how to set up test accounts that correspond to those roles
 - Setting up Sandbox email to verify test PayPal transactions
 - Viewing PayPal-generated email sent to different business roles, depending on different types of transactions
- The *PayPal SDK Guides* (<https://www.paypal.com/sdk/>) describe PayPal's kit for writing applications based on PayPal's Web Services API. Supporting Java, Microsoft .NET Framework, and PHP with PEAR, the SDK shields the developer from explicitly dealing with SOAP request and response structures, who does not have to marshall and unmarshall SOAP XML. The SDK includes:
 - Administrative tools for managing PayPal API user profiles
 - Logging and other features for troubleshooting during test or production
 - A sample website integration that showcases many PayPal Web Services APIs and other features
 - Auto-updating to easily keep current with enhancements to PayPal Web Services
- The *PayPal Web Services API Reference* (https://www.paypal.com/en_US/pdf/PP_APIReference.pdf) is for programmers familiar with Web Services. It includes:
 - Technical details about the PayPal API

- Data types, date/time formats, character sets, supported currency and country codes, and single-merchant and third-party authentication
- WSDL and XSD definitions and structures for all PayPal API operations
- SOAP request elements with required or allowable values
- SOAP response structures with definitions of returned values
- Error codes and messages

Open Standards Background Information

This section contains references to background information for understanding and using the PayPal Web Services API.

Web Services Standards

Web Services are an ongoing open standards effort. For the latest information about developments in Web Services, see the following site:

<http://www.webservices.org/>

Cryptography

The PayPal Web Services API uses public key infrastructure, specifically PKCS#12 and Privacy Enhanced Mail (PEM). For more information about PKCS#12 and PEM files, see the following sites:

- PKCS12 and other forms of securely available credentials:
<http://www.faqs.org/rfcs/rfc3157.html>
- PEM: <http://www.ietf.org/rfc/rfc1421.txt>

2

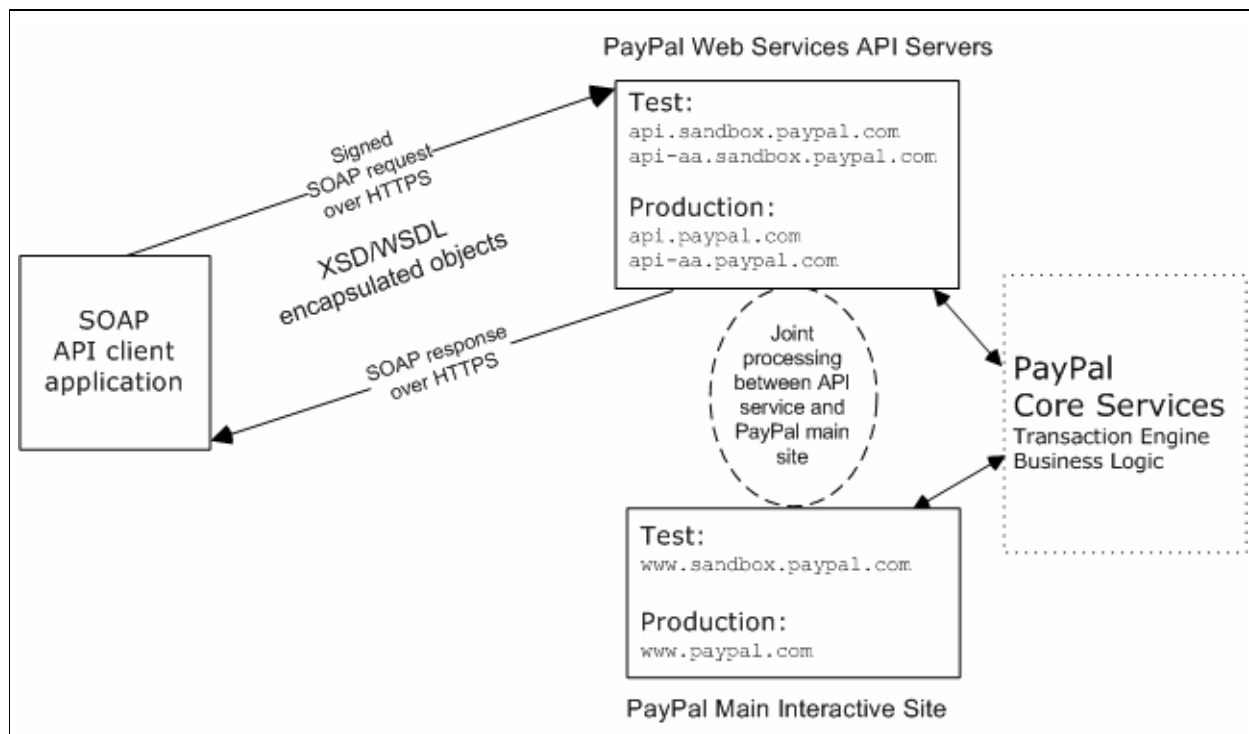
PayPal Web Services API Architecture

The PayPal Web Services API is based on open standards known collectively as “Web Services,” which include the Simple Object Access Protocol (SOAP), Web Services Definition Language (WSDL), and the XML Schema Definition language (XSD). These standards are supported by a wide range of development tools on a variety of platforms.

Services Architecture

Like many web services, PayPal Web Services is a combination of client-side and server-side schemas, hardware and software servers, and core services.

FIGURE 2.1 *PayPal Web Services High-level Diagram*



In an object-oriented processing model, the interface to SOAP requests/responses is an object in your application’s native programming language. Your third-party SOAP client generates business-object interfaces and network stubs from PayPal-provided WSDL and XSD files that specify the PayPal SOAP message structure, its contents, and the PayPal API service bindings. A business application works with data in the form of object properties to send and receive

data by calling object methods. The SOAP client handles the details of building the SOAP request, sending it to the PayPal service, and converting the response back to an object.

PayPal WSDL/XSD Schema Definitions

The PayPal Web Services schema and its underlying eBay Business Language (eBL) base and core components are required for developing applications with the PayPal Web Services API. The following are the locations of the WSDL and XSD files.

TABLE 2.1 Location of PayPal WSDL and XSD Files

Development and Test with the PayPal Sandbox API Service	
PayPal Schema	http://www.sandbox.paypal.com/wsdl/PayPalSvc.wsdl
eBL Base Components and Component Types	http://www.sandbox.paypal.com/wsdl/eBLBaseComponents.xsd http://www.sandbox.paypal.com/wsdl/CoreComponentTypes.xsd
Production with Live PayPal Web Services API Service	
PayPal Schema	http://www.paypal.com/wsdl/PayPalSvc.wsdl
eBL Base Components and Component Types	http://www.paypal.com/wsdl/eBLBaseComponents.xsd http://www.paypal.com/wsdl/CoreComponentTypes.xsd

Security

The PayPal Web Services API service is protected to ensure that only authorized PayPal members use it. There are three primary levels of security:

- API username/password and third-party account authentication
- Public/private key encryption
- Secure Sockets Layer (SSL) data transport

A failure of authenticated security at any one of these levels denies access to the PayPal Web Services API.

SOAP RequesterCredentials: Username, Password, and Subject

For the security of your business, PayPal must verify that merchants or third-party developers are permitted to initiate a transaction before they make one. PayPal authenticates each request. If the request cannot be authenticated, a SOAP security fault is returned.

In the SOAP request header, your SOAP client must set the Username, Password, and Subject elements to pass an API username/password combination and an optional third-party account email address for authentication. The following is a partial example of the RequesterCredentials elements required for all SOAP requests. For a correlation of these elements to the generic structure of an entire SOAP request, see “SOAP Request Envelope” on page 18.

```
<SOAP-ENV:Header>
<RequesterCredentials xmlns="urn:ebay:api:PayPalAPI"
xsi:type="ebl:CustomSecurityHeaderType">
  <Credentials xmlns="urn:ebay:apis:eBLBaseComponents"
    xsi:type="ebl:UserIdPasswordType">
    <Username xsi:type="xs:string">api_username</Username>
    <Password xsi:type="xs:string">api_password</Password>
    <Subject xsi:type="xs:string">authorizing_account_emailaddress</Subject>
  </Credentials>
</RequesterCredentials>
</SOAP-ENV:Header>
```

where:

TABLE 2.2 RequesterCredentials Authentication Elements in SOAP Header

Element	Value	Description
<Username>	<i>api_username</i>	<p>Your API username, which is auto-generated by PayPal when you apply for a digital certificate to use the PayPal Web Services API. You can see this value on https://www.paypal.com/ in your Profile under API Access > API Certificate Information.</p> <p>NOTE: The <i>PayPal Sandbox User Guide</i> contains details about how you can obtain digital certificates for use with the PayPal Web Services API.</p>
<Password>	<i>api_password</i>	Your API password, which you specify when you apply for a digital certificate to use the PayPal Web Services API.
<Subject>	<i>authorizing_account_emailaddress</i>	<p>The email address of a third-party for whom you are sending requests to the PayPal Web Services API. Your API username must have been granted permission by this third-party to make any particular PayPal API request.</p> <p>NOTE: The <Subject> element must be included in the SOAP header, even if you are not making a request on someone else's behalf. In this case, set <Subject> with no value:</p> <p><Subject/></p>

Public/Private Key Encryption

Your security with the PayPal Web Services API relies on a set of public/private security keys issued in the form of digital certificates by PayPal. These keys uniquely identify an API user to prove his authorization to access PayPal Web Services. Each SOAP request is signed by your private key, and PayPal Web Services processes a request *only* after authentication succeeds.

SSL Data Transport

All data must be transported over the Secure Hyper Text Transport Protocol (also known as SHTTP or HTTPS), which relies on the Secure Sockets Layer (SSL) data communications protocol.

SOAP Implementation

This section contains information about the PayPal Web Services SOAP implementation.

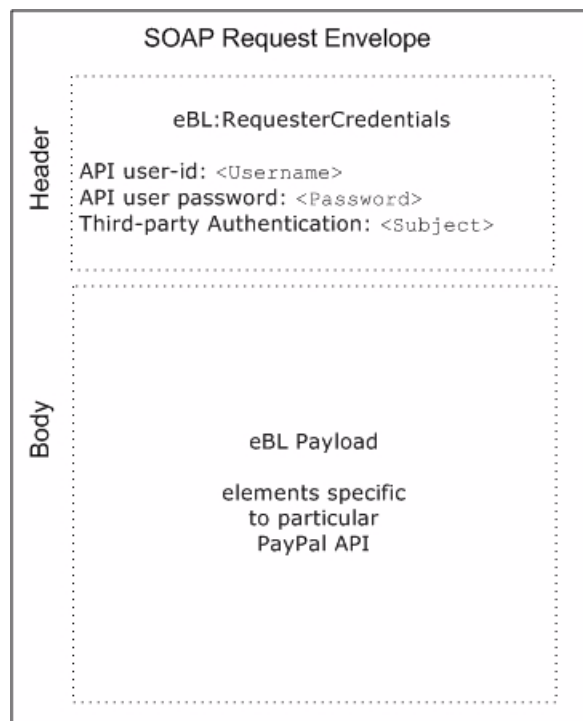
SOAP Message Style: *doc-literal*. PayPal uses *doc-literal* SOAP messaging, not *rpc*-encoding. With *doc-literal*, a single service interface call passes an XML document in the request to the PayPal API server, which responds with an XML document instance.

SOAP Request Envelope

The following diagram illustrates the contents of a PayPal SOAP request envelope.

All PayPal APIs are based on two core structures: `Abstract RequestType` and `AbstractResponseType`.

FIGURE 2.2 *Diagram of SOAP Request Envelope*



Request Structure

The following is an annotated description of the SOAP request structure required by the PayPal Web Services API.

EXAMPLE 2.1 General Structure of PayPal API SOAP Request

```

1. <?xml version="1.0" encoding="UTF-8"?>
2. <SOAP-ENV:Envelope
3.     xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
4.     xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
5.     xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
6.     xmlns:xsd="http://www.w3.org/1999/XMLSchema"
7.     SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
8.     <SOAP-ENV:Header>
9.         <RequesterCredentials
10.             xmlns="urn:ebay:api:PayPalAPI" SOAP-ENV:mustUnderstand="1">
11.             <Credentials xmlns="urn:ebay:apis:EBLBaseComponents">
12.                 <Username>api_username</Username>
13.                 <Password>api_password</Password>
14.                 <Subject/>
15.             </Credentials>
16.         </RequesterCredentials>
17.     </SOAP-ENV:Header>
18.     <SOAP-ENV:Body>
19.         <specific_api_name_Req xmlns="urn:ebay:api:PayPalAPI">
20.             <specific_api_name_Request
21.                 xsi:type="ns:specific_api_name_RequestType">
22.                 <Version xsi:type="xsd:string">service_version</Version>
23.                 <required_or_optional_element xsi:type="some_type_here">
24.                     data
25.                 </required_or_optional_elements >
26.             </specific_api_name_Request>
27.         </specific_api_name_Req>
28.     </SOAP-ENV:Body>
29. </SOAP-ENV:Envelope>

```

TABLE 2.3 Annotation of Generic SOAP Request

Lines	Comment
12, 13	The <Username> and <Password> elements are part of the PayPal Web Services API <RequesterCredentials> security authentication mechanism you must construct for every SOAP request header. For details, see “SOAP RequesterCredentials: Username, Password, and Subject” on page 16 .
14	The <Subject> element can specify a third-party PayPal account by whom you are authorized to make this request. For more details, see “<Subject>” on page 17 .
19 through 27	The SOAP request for every PayPal API follows this element naming pattern. The API’s specific name is appended with Req, and in this element the <i>specific_api_name_Request</i> is nested. Each <i>specific_api_name_Request</i> has a corresponding <i>specific_api_name_RequestType</i> .
22	The number of the PayPal Web Services API version is required on each SOAP request.

TABLE 2.3 Annotation of Generic SOAP Request

Lines	Comment
24	For details about required and optional elements and values for specific requests, see the description of individual APIs in this book.

Response Structure

The following is an annotated description of the structure of a SOAP response from the PayPal Web Services API.

EXAMPLE 2.1 General Structure of PayPal API SOAP Response: Success

```

1. <?xml version="1.0"?>
2. <SOAP-ENV:Envelope
3.   xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
4.   xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
5.   xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
6.   xmlns:xsd="http://www.w3.org/1999/XMLSchema"
7.   xmlns:xs="http://www.w3.org/2001/XMLSchema"
8.   xmlns:cc="urn:ebay:apis:CoreComponentTypes"
9.   xmlns:wsu="http://schemas.xmlsoap.org/ws/2002/07/utility"
10.  xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
11.  xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
12.  xmlns:wsse="http://schemas.xmlsoap.org/ws/2002/12/secext"
13.  xmlns:ebl="urn:ebay:apis:eBLBaseComponents"
14.  xmlns:ns="urn:ebay:api:PayPalAPI">
15.  <SOAP-ENV:Header>
16.    <Security xmlns="http://schemas.xmlsoap.org/ws/2002/12/secext"
17.      xsi:type="wsse:SecurityType"/>
18.    <RequesterCredentials xmlns="urn:ebay:api:PayPalAPI"
19.      xsi:type="ebl:CustomSecurityHeaderType">
20.      <Credentials xmlns="urn:ebay:apis:eBLBaseComponents"
21.        xsi:type="ebl:UserIdPasswordType"/>
22.    </RequesterCredentials>
23.  </SOAP-ENV:Header>
24.  <SOAP-ENV:Body id="_0">
25.    <specific_api_name_Response xmlns="urn:ebay:api:PayPalAPI">
26.      <Timestamp>dateTime_in_UTC/GMT</Timestamp>
27.      <Ack xmlns="urn:ebay:apis:eBLBaseComponents">Success</Ack>
28.      <Version xmlns="urn:ebay:apis:eBLBaseComponents">service_version</Version>
29.      <Build xmlns="urn:ebay:apis:eBLBaseComponents">api_build_number</Build>
30.      <elements_for_specific_api_response>
31.        data
32.      </elements_for_specific_api_response>
33.    </specific_api_name_Response>
34.  </SOAP-ENV:Body>

```

32. </SOAP-ENV:Envelope>

TABLE 2.4 Annotation of Generic SOAP Response

Lines	Comment
22 and 31	The <i>specific_api_name_Response</i> start and end elements.
23	Each API response contains a timestamp with its date and time in UTC/GMT.
24	<p>The <Ack> element contains the string <code>Success</code> after the corresponding request has been successfully processed. (For a complete list of possible returned strings, see “AbstractResponseType” on page 28.)</p> <p>In the case of errors, the response body contains an <Errors> element with information to help you troubleshoot the cause of the error. See “Error Responses” on page 21.</p>
27 through 29	The different PayPal APIs return different structures depending on their response definitions. For detailed information, see the description of the APIs in the central chapters of this book.

Error Responses

If a request is malformed or some other error, the body of the SOAP response contains an <Errors> element with other elements that can help you troubleshoot the cause of the error. The most important of these additional elements are as follows:

- ShortMessage
- LongMessage
- ErrorCode

For a description of the contents of these elements, see [Appendix A, “Error Codes and Messages for All PayPal APIs.”](#)

The following example shows the error response if your API username and password do not match a legitimate API username and password on file with PayPal

EXAMPLE 2.1 Example of SOAP Error Response: Bad Username or Password

```
<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope details not shown>
<SOAP-ENV:Header>
.
. details not shown
.
</SOAP-ENV:Header>
<SOAP-ENV:Body id="_0">
<GetTransactionDetailsResponse xmlns="urn:ebay:api:PayPalAPI"><Timestamp
xmlns="urn:ebay:apis:eBLBaseComponents">2005-02-09T21:51:26Z</Timestamp>
<Ack xmlns="urn:ebay:apis:eBLBaseComponents">Failure</Ack>
<Errors xmlns="urn:ebay:apis:eBLBaseComponents" xsi:type="ebl:ErrorType">
<ShortMessage xsi:type="xs:string">Authentication/Authorization
Failed</ShortMessage>
```

```

<LongMessage xsi:type="xs:string">Username/Password is incorrect</LongMessage>
<ErrorCode xsi:type="xs:token">10002</ErrorCode>
<SeverityCode xmlns="urn:ebay:apis:eBLBaseComponents">Error</SeverityCode>
</Errors>
<Version xmlns="urn:ebay:apis:eBLBaseComponents">1.000000</Version><Build
xmlns="urn:ebay:apis:eBLBaseComponents">1.0006</Build>
.
. other elements in response
.
</SOAP-ENV:Body></SOAP-ENV:Envelope>

```

Test Tools: PayPal SDK Console

The PayPal SDK includes the console, which is a good tool for testing and learning the PayPal Web Services API. For more details about the console, see the *PayPal SDK Guides*.

PayPal Web Services API Definitions

The PayPal Web Services API comprises individual API definitions for specific business functions. As a foundation, the API relies on eBay Business Language (eBL) base and core components. The core eBL structures `AbstractRequestType` and `AbstractResponseType` are the basis of the SOAP request and response of each PayPal API. `AbstractResponseType` is also the framework for error messages common across all PayPal APIs.

PayPal has made some schema design decisions that can affect how businesses design their own applications.

- Enumerations: Enumerations are defined directly in the PayPal API schema.
- Troubleshooting information: The PayPal API returns information about elements that trigger errors.
- Backward compatibility: The PayPal API is versioned so that business applications are backward compatible when new elements are introduced to the server-side schema.

NOTE: eBL defines many structures that are specific to processing auctions. PayPal's Web Services schema includes these definitions to maintain compatibility with eBay's Web Services and for possible future joint use of Web Services across both eBay and PayPal. The material in this book focuses only on those Web Services definitions pertinent to use of the PayPal Web Services API.

Character Encoding and Data Types and Formats

This section details allowed character encoding and character sets, date data types, and formats.

UTF-8 Character Encoding

The PayPal Web Services API service assumes that all data in SOAP requests is in Unicode, specifically, the Unicode (or UCS) Transformation Format, 8-bit encoding form (UTF-8).

In SOAP responses, the service always returns data in UTF-8.

Numeric and Date/Time Formats

The PayPal Web Services API schema defines the following data types for numeric and date/time values.

- Numeric data types:
 - `int` (32-bit), not `integer`.
 - For percentage values: `float`, not `decimal`.
- Date/time values: Coordinated Universal Time (UTC/GMT), using ISO 8601 format, and of type `ns:dateTime`.

PayPal-Supported Currencies

The following currencies are supported by PayPal.

TABLE 2.5 *PayPal-Supported Currencies, Currency Codes, and Maximum Transaction Amounts*

Code	Currency	Maximum Transaction Amount
AUD	Australian Dollar	12,500 AUD
CAD	Canadian Dollar	12,500 CAD
EUR	Euro	8,000 EUR
GBP	Pound Sterling	5,500 GBP
JPY	Japanese Yen	1,000,000 JPY
USD	U.S. Dollar	10,000 USD

The core currency amount data type is derived from `string`, and all currency amount elements have the following structure. The `currencyID` attribute is required.

```
<Amount currencyID="currencyCode">ns:BasicAmountType</Amount>
```

(The element name `Amount` is an example; actual element names can vary depending on the specific API.)

`BasicAmountType` has a data type of `ebl:CurrencyCodeType`, which defines a large number of different currency codes. However, for your processing to succeed, you must set `currencyCode` to one of the values from the first column of [Table 2.4, “Annotation of Generic SOAP Response” on page 23.](#)”

API Overview By Business Function and Service Endpoint

The PayPal Web Services API consists of individual APIs for specific business uses, and the individual APIs are grouped into two service endpoints.

TABLE 2.6 API Overview by Business Function and Service Endpoint

Business Function	SOAP Request/Response	Service Endpoint: Production	Service Endpoint: Test
Authorization & Capture API	<code><Code>DoCaptureRequest</code> <code><Code>DoCaptureResponse</code> <code><Code>DoAuthorizationRequest</code> <code><Code>DoAuthorizationResponse</code> <code><Code>DoVoidRequest</code> <code><Code>DoVoidResponse</code> <code><Code>DoReauthorizationRequest</code> <code><Code>DoReauthorizationResponse</code>	<code>api-aa.paypal.com</code>	<code>api-aa.sandbox.paypal.com</code>
Direct Payment API	<code><Code>DoDirectPaymentRequest</code> <code><Code>DoDirectPaymentResponse</code>	<code>api-aa.paypal.com</code>	<code>api-aa.sandbox.paypal.com</code>
Express Checkout API	<code><Code>SetExpressCheckoutRequest</code> <code><Code>SetExpressCheckoutResponse</code> <code><Code>GetExpressCheckoutDetailsRequest</code> <code><Code>GetExpressCheckoutDetailsResponse</code> <code><Code>DoExpressCheckoutPaymentRequest</code> <code><Code>DoExpressCheckoutPaymentResponse</code>	<code>api-aa.paypal.com</code>	<code>api-aa.sandbox.paypal.com</code>
GetTransactionDetails API	<code><Code>GetTransactionDetailsRequest</code> <code><Code>GetTransactionDetailsResponse</code>	<code>api.paypal.com</code>	<code>api.sandbox.paypal.com</code>
MassPay API	<code><Code>MassPayRequest</code> <code><Code>MassPayResponse</code>	<code>api.paypal.com</code>	<code>api.sandbox.paypal.com</code>
RefundTransaction API	<code><Code>RefundTransactionRequest</code> <code><Code>RefundTransactionResponse</code>	<code>api.paypal.com</code>	<code>api.sandbox.paypal.com</code>
TransactionSearch API	<code><Code>TransactionSearchRequest</code> <code><Code>TransactionSearchResponse</code>	<code>api.paypal.com</code>	<code>api.sandbox.paypal.com</code>

APIs to Exchange Funds or Display Information

All PayPal Web Services APIs deal with business transactions. However, the APIs can be further categorized as follows:

- APIs that result in an exchange of funds:
 - Authorization & Capture
 - Direct Payment
 - Express Checkout
 - MassPay
 - RefundTransaction
- APIs that provide information about business transactions:
 - GetTransactionDetails
 - TransactionSearch

Instant Payment Notification and the APIs

Use of a PayPal Web Services API that results in an exchange of funds triggers the sending of an Instant Payment Notification email to the recipient of the funds. The APIs that send Instant Payment Notification email messages are as follows:

- MassPay
- RefundTransaction

For more information about Instant Payment Notification, see the *PayPal Order Management Integration Guide*.

3

Core eBL Request/Response Structures

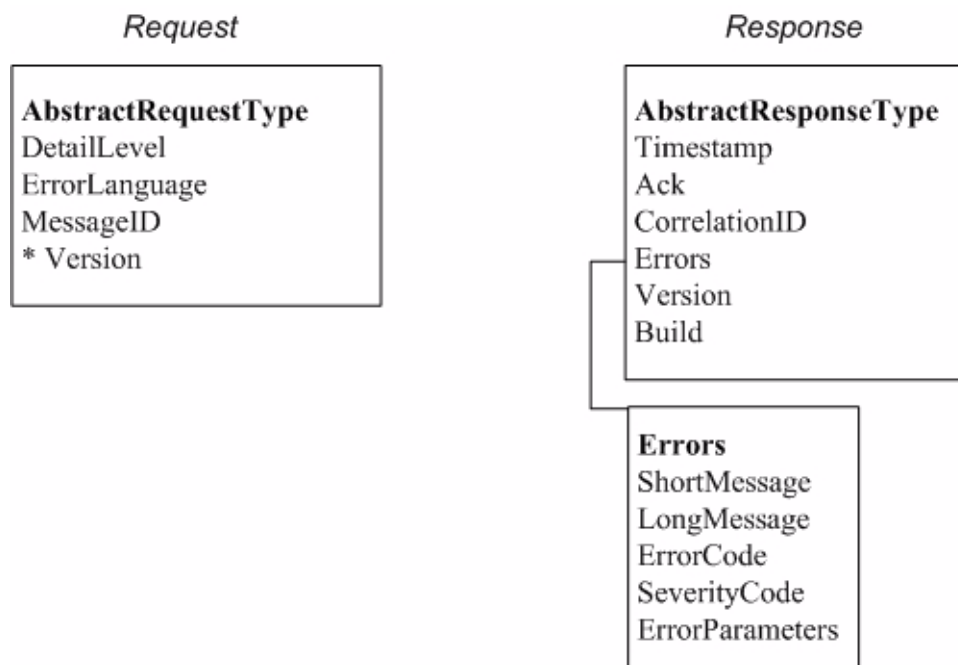
The PayPal Web Services API is built on core structures from the eBL schema that define required elements in all SOAP requests and responses:

- AbstractRequestType
- AbstractResponseType

Diagram of core eBL Types

The following diagram represents the composition of the AbstractRequestType and AbstractResponseType elements.

FIGURE 3.1 Core eBL Types



AbstractRequestType

AbstractRequestType is the base type definition of all PayPal Web Services SOAP requests.

IMPORTANT: You must set the value of the `Version` element for all requests to any PayPal Web Services API.

Fields

TABLE 3.1 AbstractRequestType Fields

Element	Description	Data Type	Allowable Values	Required?
Version	A string representing the version of the request payload schema	xs:string	2.0	Yes

AbstractResponseType

AbstractResponseType is the base type definition of all PayPal Web Services SOAP responses.

Fields

For error codes and messages and their meanings, see [Appendix A, “Error Codes and Messages for All PayPal APIs](#).

TABLE 3.2 AbstractResponseType Fields

Element	Description	Data Type	Possible Values
Timestamp	The date and time (UTC/GMT) the response was generated by the PayPal Web Services service as a result of processing a request	xs:dateTime	Transaction-specific

TABLE 3.2 *AbstractResponseType Fields*

Element	Description	Data Type	Possible Values
Ack	<p>A token representing the application-level acknowledgement code. Contains one of the following enumerated values:</p> <p>Success: Request processing succeeded</p> <p>Failure: Request processing failed</p> <p>SuccessWithWarning: Request processing completed successfully but with some warning information that could be useful for the requesting application to process or record.</p> <p>FailureWithWarning: Request processing failed with some error and warning information that the requesting application should process to determine causes of failure.</p> <p>CustomCode: Reserved for internal or future use.</p>	xs:token	Success Failure SuccessWithWarning FailureWithWarning CustomCode
CorrelationID	A string that can be used with an application-level acknowledgement	xs:string	Transaction-specific
Errors	<p>Error code for debugging a response.</p> <p>ErrorCode: token defining the error code number</p> <p>ShortMessage: string containing the error message</p> <p>LongMessage: string describing the error message</p>	ns:ErrorType xs:token xs:string	Transaction-specific
Version	A string representing the version of the response payload schema	xs:string	1.0
Build	A string representing the specific software build that processes the request and generates the response	xs:string	

4

Authorization & Capture API

The Authorization & Capture API consists of individual requests and responses, as shown below.

TABLE 4.1 *Authorization & Capture API Names, Purposes, and Types of Authorization*

API	Purpose	Used With Type of Authorization
1. DoCapture	Settle an order or previously authorized transaction and obtain payment for either the complete amount or any portion of it.	Order and Basic
2. DoAuthorization	Authorize an order that can be fulfilled over 29 days.	Order only
3. DoVoid	Void an original authorization or order	Order and Basic
4. DoReauthorization	Reauthorize a previously authorized transaction	Basic only

Funds Availability. Both DoAuthorization and DoReauthorization check the availability of a PayPal member's funds to obtain another honor period or to make a payment higher than you originally authorized, up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD).

DoCapture

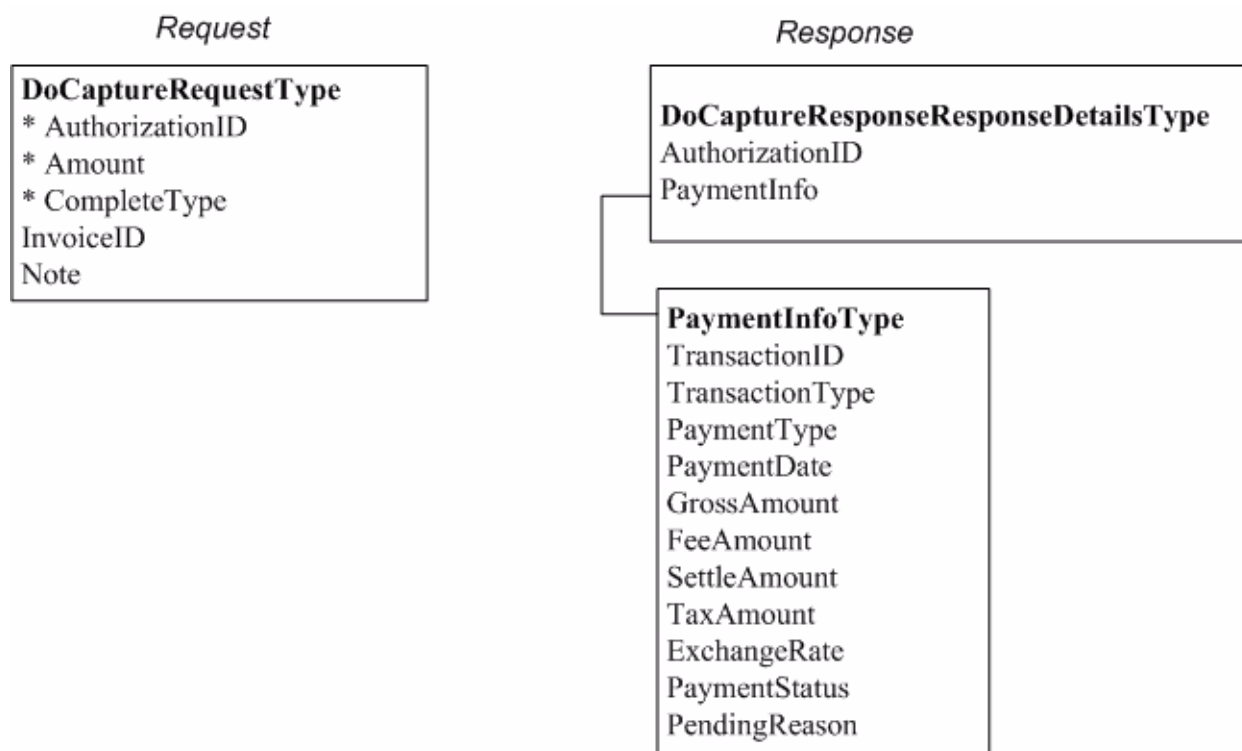
DoCaptureRequest is your request to completely or partially settle an order, an authorization, or reauthorization.

NOTE: DoCaptureRequest is for use with both basic and order authorizations.

Diagram of DoCapture Types

The following diagram represents the composition of the DoCaptureRequestType and DoCaptureResponseType elements. Elements required in the request are marked with an asterisk.

FIGURE 4.1 DoCapture Types



DoCaptureRequest

Request to capture funds from a PayPal member's account.

Fields

TABLE 4.2 *DoCaptureRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
Authorization ID	The authorization identification number of the payment you want to capture. Character length and limits: 19 single-byte characters maximum	xs:string	See description.	Yes
Amount	Amount to capture. NOTE: You must set the <code>currencyID</code> attribute to USD. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	Yes
CompleteType	Indicates if this capture is the last capture you intend to make. The default is <code>Complete</code> . NOTE: If <code>CompleteType</code> is <code>Complete</code> , any remaining amount of the original reauthorized transaction is automatically voided. Character length and limits: 12 single-byte alphanumeric characters	ebl:CompleteCode Type	Default: <code>Complete</code> <code>NotComplete</code>	Yes
InvoiceID	Your invoice number or other identification number. NOTE: The <code>InvoiceID</code> 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	xs:string	See description.	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	xs:string	See description.	No

DoCaptureResponse

Response to DoCaptureRequest.

Fields**TABLE 4.3 DoCaptureResponse Fields**

Element	Description	Data Type	Possible Values
Authorization ID	The authorization identification number you specified in the request. Character length and limits: 19 single-byte characters maximum	xs:string	See description.
PaymentInfo	Information about the payment.	ebl:PaymentInfo Type	See Table 4.4 on page 34.

TABLE 4.4 Response: PaymentInfoType Elements

Element	Description	Data Type	Possible Values
TransactionID	Unique transaction ID of the payment. Character length and limitations: 17 single-byte characters	xs:string	Transaction-specific
Transaction Type	The type of transaction Character length and limitations: 15 single-byte characters	ns:Payment TransactionCode Type	cart express-checkout
PaymentType	Indicates whether the payment is instant or delayed. Character length and limitations: Seven single-byte characters	ebl:PaymentCode Type xs:string	none echeck instant
PaymentDate	Time/date stamp of payment	xs:dateTime	Transaction-specific
GrossAmount	The final amount charged, including any shipping and taxes from your Merchant Profile.	ebl:BasicAmount Type	Transaction-specific
FeeAmount	PayPal fee amount charged for the transaction	ebl:BasicAmount Type	Transaction-specific
SettleAmount	Amount deposited in your PayPal account after a currency conversion.	ebl:BasicAmount Type	Transaction-specific
TaxAmount	Tax charged on the transaction	ebl:BasicAmount Type xs:string	Transaction-specific

TABLE 4.4 Response: PaymentInfoType Elements

Element	Description	Data Type	Possible Values
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	xs:string	Transaction-specific
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 element 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.	ebl:PaymentStatus CodeType xs:token	None Canceled-Reversal Completed Denied Expired Failed Pending Refunded Reversed Processed Voided

TABLE 4.4 Response: PaymentInfoType Elements

Element	Description	Data Type	Possible Values
PendingReason	<p>NOTE: PendingReason is returned in the response only if PaymentStatus is Pending.</p> <p>The reason the payment is pending:</p> <p>none: No pending reason</p> <p>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.</p> <p>echeck: The payment is pending because it was made by an eCheck that has not yet cleared.</p> <p>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.</p> <p>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.</p> <p>verify: The payment is pending because you are not yet verified. You must verify your account before you can accept this payment.</p> <p>other: The payment is pending for a reason other than those listed above. For more information, contact PayPal Customer Service.</p>	ebl:PendingStatus CodeType xs:token	none address echeck intl multi-currency verify other

DoAuthorization

DoAuthorizationRequest is your request to authorize a customer order that can be fulfilled within 29 days. You use DoAuthorizationRequest when you are ready to ship goods to your customer. After you ship, you can capture funds with DoCapture.

NOTE: DoAuthorizationRequest is for use only with order authorizations, not basic authorizations.

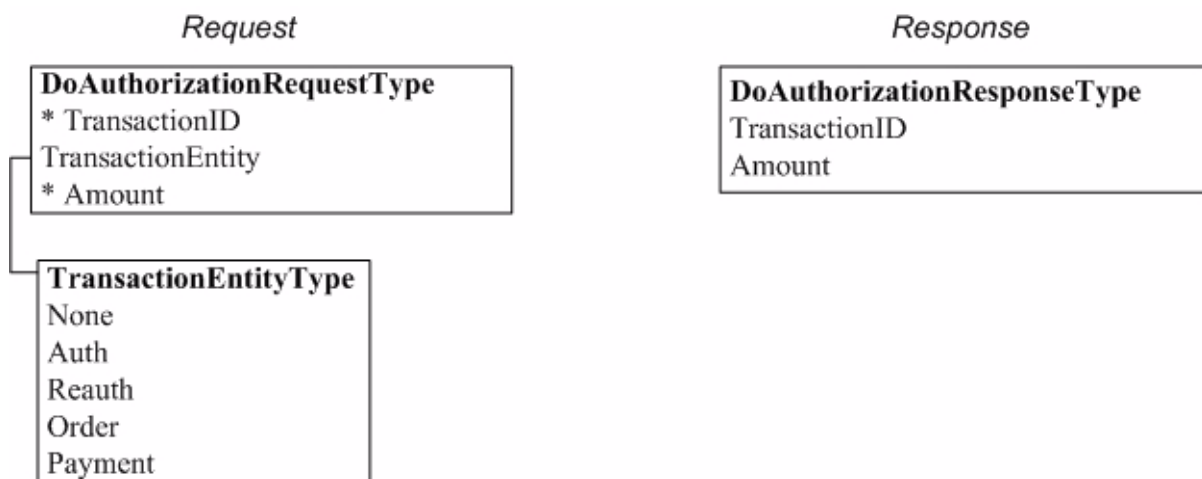
To use DoAuthorization you must have previously created a customer order. You can create an order in several ways:

- With the DoExpressCheckoutPaymentRequest or DoDirectPaymentRequest PaymentAction element set to Order.
- With a shopping cart or PayPal Website Payments transaction with the paymentaction HTML variable set to order.

Diagram of DoAuthorization Types

The following diagram represents the composition of the DoAuthorizationRequestType and DoAuthorizationResponseType elements. Elements required in the request are marked with an asterisk.

FIGURE 4.2 DoAuthorization Types



DoAuthorizationRequest

Request to authorize all or part of a customer order amount.

Fields

TABLE 4.5 *DoAuthorizationRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
Transaction ID	The value of the order's transaction identification number returned by a PayPal product. Character length and limits: 19 single-byte characters maximum	xs:string	See description.	Yes
Amount	Amount to authorize. NOTE: You must set the currencyID attribute to USD. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	Yes
Transaction Entity	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.	ebl:Transaction EntityType	Order	No

DoAuthorizationResponse

Response to DoAuthorizationRequest.

Fields

TABLE 4.6 *DoAuthorizationResponse Fields*

Element	Description	Data Type	Possible Values
Transaction ID	An authorization identification number. Character length and limits: 17 single-byte characters	xs:string	See description.
Amount	The amount you specified in the request.	ebl:BasicAmount Type	See description.

DoVoid

DoVoidRequest voids an order or an authorization.

IMPORTANT: *The AuthorizationID value on DoVoidRequest must be the original authorization identification number, not the value of AuthorizationID returned by DoReauthorizationResponse.*

By definition, when the authorization period expires, the authorization or reauthorization of a transaction is implicitly voided.

NOTE: DoVoidRequest is for use with both basic and order authorizations.

Diagram of DoVoid Types

The following diagram represents the composition of the DoVoidRequestType and DoVoidResponseType elements. Elements required in the request are marked with an asterisk.

FIGURE 4.3 DoVoid Types



DoVoidRequest

Request to void a prior authorization.

Fields

TABLE 4.7 *DoVoidRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
Authorization ID	<p>The value of the original authorization identification number returned by a PayPal product.</p> <p>IMPORTANT: <i>This value must be the original authorization identification number, not the value of <code>AuthorizationID</code> returned by <code>DoReauthorizationResponse</code>.</i></p> <p>Character length and limits: 19 single-byte characters</p>	xs:string	See description.	Yes
Note	<p>An informational note about this settlement that is displayed to the payer in email and in his transaction history.</p> <p>Character length and limits: 255 single-byte characters</p>	xs:string	See description.	No

DoVoidResponse

Response to DoVoidRequest.

Fields

TABLE 4.8 *DoVoidResponse Fields*

Element	Description	Data Type	Possible Values
Authorization ID	<p>The authorization identification number you specified in the request.</p> <p>Character length and limits: 19 single-byte characters</p>	xs:string	See description.

DoReauthorization

To use DoReauthorization you must have previously authorized a transaction. You can authorize a transaction in several ways:

- From the **Merchant Tools** tab of your PayPal merchant account.
- With the DoExpressCheckoutPaymentRequest PaymentAction element set to Authorization.
- With a shopping cart transaction (such as one that uses PayPal Website Payments) with the paymentaction HTML variable set to authorization.

You can invoke DoReauthorizationRequest as many times as necessary to obtain one successful reauthorization. When DoReauthorizationResponse returns success, the settlement period restarts, you can capture funds, but you can no longer reauthorize.

NOTE: DoReauthorizationRequest is for use only with basic authorizations, not order authorizations.

Diagram of DoReauthorization Types

The following diagram represents the composition of the DoReauthorizationRequestType and DoReauthorizationResponseType elements. Elements required in the request are marked with an asterisk.

FIGURE 4.4 DoReauthorization Types



DoReauthorizationRequest

Request to use Authorization & Capture to reauthorize a transaction.

Fields

TABLE 4.9 *DoReauthorizationRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
Authorization ID	<p>The value of a previously authorized transaction identification number returned by a PayPal product.</p> <p>NOTE: You can obtain a buyer's transaction number from the <code>TransactionID</code> element of the <code>PayerInfo</code> structure returned by <code>GetTransactionDetailsResponse</code>.</p> <p>Character length and limits: 19 single-byte characters maximum</p>	xs:string	Any previously authorized PayPal transaction identification number.	Yes
Amount	<p>Amount to reauthorize.</p> <p>NOTE: You must set the <code>currencyID</code> attribute to USD.</p> <p>Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).</p>	cc:BasicAmount Type	See description.	Yes

DoReauthorizationResponse

Response to `DoReauthorizationRequest`.

Fields

TABLE 4.10 *DoReauthorizationResponse Fields*

Element	Description	Data Type	Possible Values
Authorization ID	<p>A new authorization identification number.</p> <p>Character length and limits: 19 single-byte characters</p>	xs:string	See description.

5

Direct Payments API

With the Direct Payments API, you can obtain payment through PayPal directly from a buyer's credit card.

IMPORTANT: *For a full understanding of the complete details about how to use PayPal Direct Payment, consult the PayPal Website Payments Pro Integration Guide.*

DoDirectPaymentRequest. You must include the `PaymentAction` element in `DoDirectPaymentRequest`. Allowable values for the `PaymentAction` element are `Sale` or `Authorization`:

- Set `PaymentAction` to `Sale` if the buyer's order is final (for example, if the total cost of the order is complete with shipping, handling and tax charges). This transaction is your payment, and you expect no additional charge to the buyer.
- Set `PaymentAction` to `Authorization` if the total cost of the order at point of sale is not complete for some reason (such as unknown shipping charges) and you expect to capture funds after checkout is complete. You can then use PayPal PayPal Authorization & Capture to obtain payment.

In either case, besides the `PaymentAction` element, `DoDirectPaymentRequest` requires additional elements, such as the amount of the transaction, IP address of the buyer's browser, credit card number, type, and expiration date, and information about both the payer and the payment.

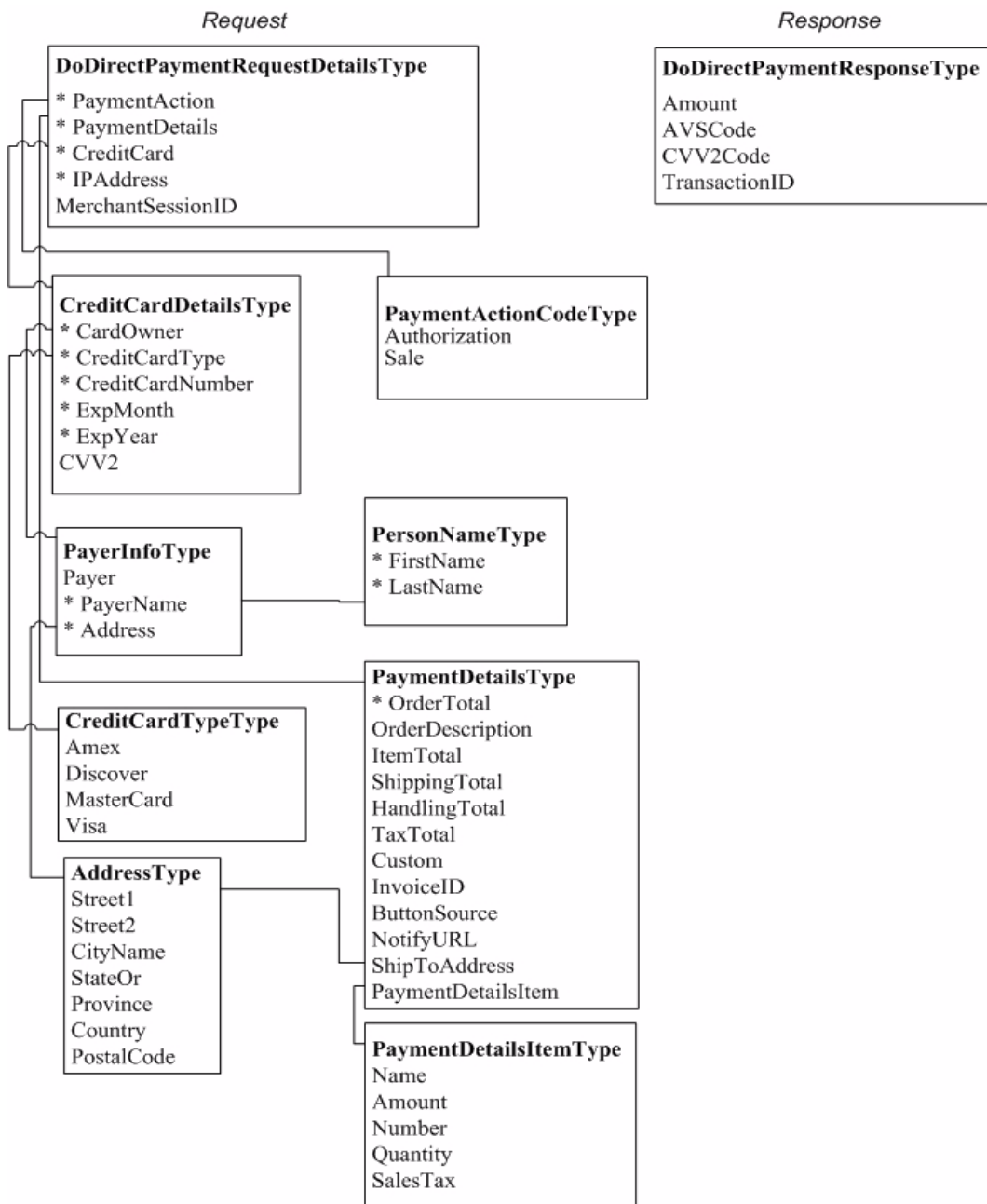
DoDirectPaymentResponse. The Direct Payments API response contains the `TransactionID` element. In the case of a final `Sale`, `TransactionID` is your record of the transaction processed with PayPal. In the case of an `Authorization`, `TransactionID` is your key to capturing funds with PayPal PayPal Authorization & Capture.

`DoDirectPaymentResponse` also returns the result of checking the buyer's postal address and credit card number (as submitted by you with `DoDirectPaymentRequest`) against the U.S. banking industry standard Address Verification System (AVS) and Credit Card Verification (CVV2) system.

Diagram of DoDirectPayment Types

The following diagram represents the composition of the DoDirectPaymentRequestType and DoDirectPaymentResponseType elements. Elements required in the request are indicated with an asterisk.

FIGURE 5.1 DoDirectPayment Types



DoDirectPaymentRequest

Request to use PayPal Direct Payments to obtain payment.

Fields

TABLE 5.1 *DoDirectPaymentRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
PaymentAction	How you want to obtain payment: <ul style="list-style-type: none">• Authorization indicates that this payment is a basic authorization subject to settlement with PayPal 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	ebl:PaymentActionCodeType xs:token	Default: The transaction resulting from DoDirect Payment Request will be a final sale. Authorization Sale NOTE: Order is not allowed for Direct Payment.	Yes
CreditCard	Information about the credit card to be charged.	ebl:CreditCardDetailsType	See Table 5.2 on page 46.	Yes
PaymentDetails	Information about the payment	ebl:PaymentDetailsType	See Table 5.3 on page 46.	Yes
IPAddress	IP address of the payer's browser as recorded in its HTTP request to your website. NOTE: PayPal records this IP addresses as a means to detect possible fraud. Character length and limitations: 15 single-byte characters, including periods, in dotted-quad format: ????.????.????.???	xs:string	Any valid Internet Protocol address.	Yes
MerchantSessionId	Your customer session identification token. NOTE: PayPal records this optional session identification token as an additional means to detect possible fraud. Character length and limitations: 64 single-byte numeric characters	xs:string		No

TABLE 5.2 *CreditCardDetailsType Fields*

Element	Description	Data Type	Allowable Values	Required?
CreditCardType	Type of credit card. Character length and limitations: Up to ten single-byte alphabetic characters.	eb1:CreditCardType Type	Visa MasterCard Discover Amex	Yes
CreditCard Number	Credit card number Character length and limitations: numeric characters only. No spaces or punctuation. Must conform with modulo and length required by each credit card type.	xs:string	See description.	Yes
ExpMonth	Credit card expiration month Character length and limitations: Two single-byte numeric characters, including leading zero.	xs:int	See description.	Yes
ExpYear	Credit card expiration year Character length and limitations: Four single-byte numeric characters.	xs:int	See description.	Yes
CVV2	Card Verification Value, version 2. Character length and limitations: Up to four single-byte numeric characters. IMPORTANT: You must include a CVV2 value for those credit cards that use CVV2.	xs:string	See description.	No. See note in description.
CardOwner	Details about the owner of the credit card.	ns:PayerInfoType	See Table 5.6 on page 49.	Yes

TABLE 5.3 *Request: PaymentDetailsType Fields*

Element	Description	Data Type	Allowable Values	Required?
OrderTotal	Total of order, including shipping, handling, and tax. NOTE: You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	eb1:BasicAmount Type	See description.	Yes

TABLE 5.3 Request: PaymentDetailsType Fields

Element	Description	Data Type	Allowable Values	Required?
ItemTotal	Sum of cost of all items in this order. Character length and limitations: 127 single-byte characters	ebl:BasicAmount Type	See description.	No
ShippingTotal	Total shipping costs for this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No
HandlingTotal	Total handling costs for this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No
TaxTotal	Sum of tax for all items in this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No
Order Description	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	xs:string	See description.	No
Custom	A free-form field for your own use. Character length and limitations: 256 single-byte alphanumeric characters	xs:string	See description.	No
InvoiceID	Your own invoice or tracking number, as set by you in the <code>InvoiceID</code> element of <code>SetExpressCheckoutRequest</code> . Character length and limitations: 127 single-byte alphanumeric characters	xs:string	See description.	No

TABLE 5.3 Request: PaymentDetailsType Fields

Element	Description	Data Type	Allowable Values	Required?
ButtonSource	An identification code for use by third-party applications to identify transactions. Character length and limitations: 32 single-byte alphanumeric characters	xs:string	See description.	No
NotifyURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction. NOTE: If you do not specify NotifyURL 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	xs:string	See description.	No
ShipToAddress	Address the order will be shipped to.	ebl:AddressType	See Table 5.4 on page 48.	No
PaymentDetailsItem	Details about each individual item included in the order	ebl:PaymentDetailsItemType	See Table 5.5 on page 49.	No

TABLE 5.4 Request: ShipToAddress: AddressType Fields

Element	Descriptions	Data Type	Allowable Values	Required?
Name	Person's name associated with this address. Character length and limitations: 32 single-byte characters	xs:string	See description.	Yes
Street1	First street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	Yes
Street2	Second street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	No
CityName	Name of city. Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
StateOrProvince	State or province. Character length and limitations: 40 single-byte characters	xs:string	See description.	No
PostalCode	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	xs:string	See description.	No

TABLE 5.4 Request: ShipToAddress: AddressType Fields

Element	Descriptions	Data Type	Allowable Values	Required?
Country	Country code. Character limit: Two single-byte characters	eb1:CountryCode Type xs:string	See Appendix B .	Yes

TABLE 5.5 Request: PaymentDetailsItemType Fields

Element	Description	Data Type	Allowable Values	Required?
Name	Item name. Character length and limitations: 127 single-byte characters	xs:string	See description.	No
Amount	Cost of item NOTE: You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	eb1:BasicAmount Type	See description.	No
Number	Item number. Character length and limitations: 127 single-byte characters	xs:string	See description.	No
Quantity	Item quantity. Character length and limitations: Any positive integer	xs:string	See description.	No
SalesTax	Item sales tax. Character length and limitations: any valid currency amount; currency code is set the same as for OrderTotal.	xs:string	See description.	No

TABLE 5.6 CardOwner: PayerInfoType Fields

Element	Description	Data Type	Allowable Values	Required?
Payer	Email address of payer. Character length and limitations: 127 single-byte characters	ns:EmailAddress Type	See description.	No

TABLE 5.6 *CardOwner: PayerInfoType Fields*

Element	Description	DataType	Allowable Values	Required?
FirstName	Payer's first name. Character length and limitations: 25 single-byte characters	ns:PersonName Type	See description.	Yes
LastName	Payer's last name. Character length and limitations: 25 single-byte characters	ns:PersonName Type	See description.	Yes
Address	Payer's billing address information	ns:AddressType	See Table 5.7 on page 50.	Yes

TABLE 5.7 *CardOwner: AddressType Fields*

Element	Description	DataType	Allowable Values	Required?
Street1	First street address Character length and limitations: 100 single-byte characters	xs:string	See description.	Yes
Street2	Second street address Character length and limitations: 100 single-byte characters	xs:string	See description.	No
CityName	Name of city Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
StateOr Province	State or province Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
Country	Country code. Character length and limitations: Two single-byte characters.	ebl:CountryCode Type xs:string	See Appendix B .	Yes
PostalCode	U.S. Zip code or other country-specific postal code Character length and limitations: 20 single-byte characters	xs:string	See description.	Yes

DoDirectPaymentResponse

Response to DoDirectPaymentRequest.

Fields

TABLE 5.8 DoDirectPaymentResponse Fields

Element	Description	Data Type	Possible Values
TransactionID	Unique transaction ID of the payment. NOTE: If the PaymentAction of the request was Authorization, you will need the value of TransactionID for use with PayPal Authorization & Capture. Character length and limitations: 17 single-byte characters	xs:string	See description.
Amount	The amount of the payment as specified by you on DoDirectPaymentRequest.	ebl:BasicAmount Type	See description.
AVSCode	Address Verification System response code. Character limit: One single-byte alphanumeric character	xs:string	See Table 5.9, “AVS Response Codes,” on page 51.
CVV2Code	Result of the CVV2 check by PayPal.	xs:string	See Table 5.10, “CVV2 Response Codes,” on page 52.

TABLE 5.9 AVS Response Codes

AVS Code	Meaning	Matched Details
A	Address	Address only (no ZIP)
B	International “A”	Address only (no ZIP)
C	International “N”	None
D	International “X”	Address and Postal Code
E	Not allowed for MOTO (Internet/Phone) transactions	Not applicable
F	UK-specific “X”	Address and Postal Code
G	Global Unavailable	Not applicable

TABLE 5.9 AVS Response Codes

AVS Code	Meaning	Matched Details
I	International Unavailable	Not applicable
N	No	None
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)
All others	Error	Not applicable

TABLE 5.10 CVV2 Response Codes

AVS Code	Meaning	Matched Details
M	Match	CVV2
N	No match	None
P	Not Processed	Not applicable
S	Service not Supported	Not applicable
U	Unavailable	Not applicable
X	No response	Not applicable
All others	Error	Not applicable

6

Express Checkout API

The Express Checkout API is the Website Payments Pro alternative to standard PayPal shopping cart processing.

IMPORTANT: *For a full understanding of the complete details about how to use PayPal Express Checkout, consult the PayPal Express Checkout Integration Guide.*

The Express Checkout API consists of three distinct SOAP requests that you make at the three integration points during a customer checkout:

1. `SetExpressCheckout`
2. `GetExpressCheckoutDetails`
3. `DoExpressCheckoutPayment`

IMPORTANT: *All currency amount elements in the three Express Checkout APIs require that the `currencyID` attribute be set to one of the supported currency codes. For any one particular buyer's checkout session, do not mix currencies either in any single SOAP request or across SOAP requests. For example, do not set `currencyID` to `USD` in one request and then to `GBP` in a later request for the same buyer.*

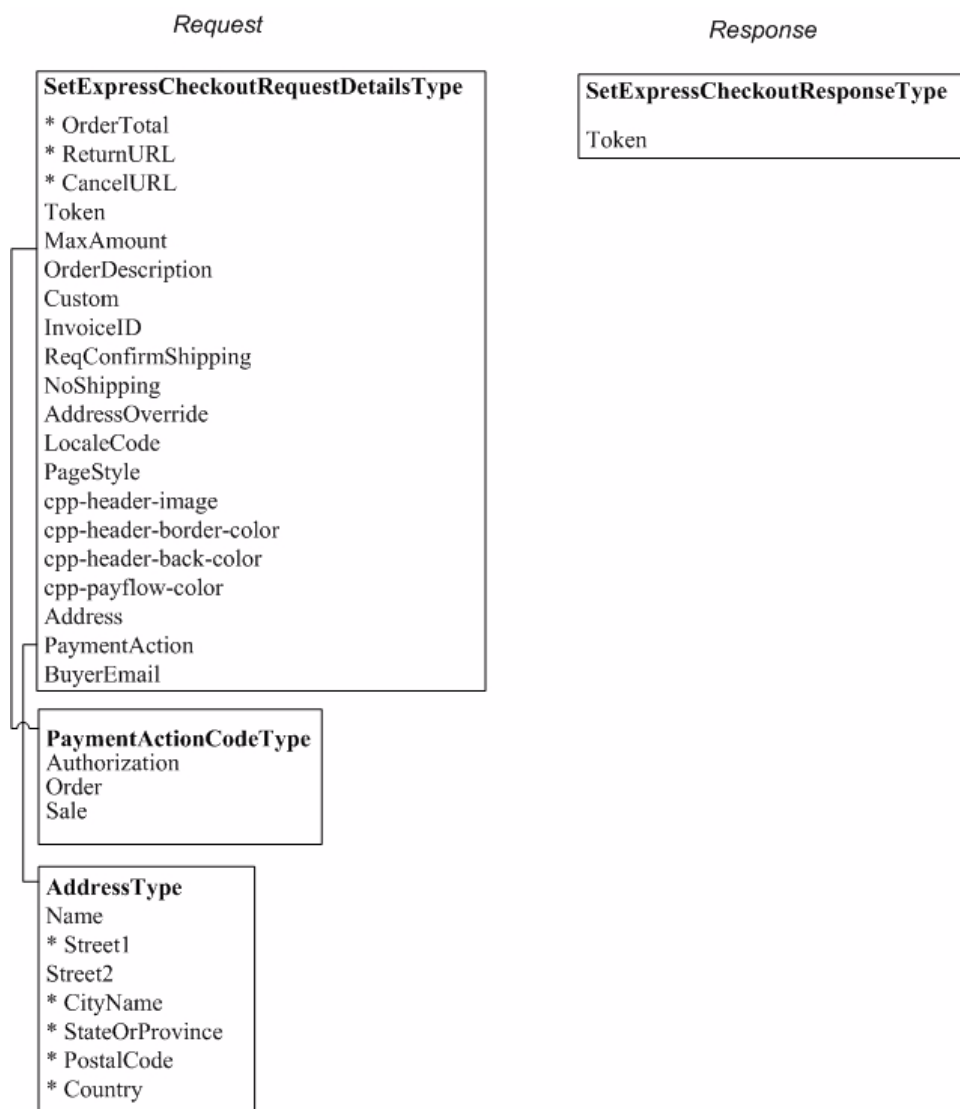
SetExpressCheckout

SetExpressCheckout indicates to PayPal that you are using Express Checkout to obtain payment from your customer.

Diagram of Set ExpressCheckout Types

The following diagram represents the composition of the SetExpressCheckoutRequestType and SetExpressCheckoutResponseType elements. Elements required in the request are indicated with an asterisk.

FIGURE 6.1 SetExpressCheckout Types



SetExpressCheckoutRequest

Request to use PayPal Express Checkout to obtain payment.

Fields

TABLE 6.1 SetExpressCheckoutRequest Fields

Element	Description	Data Type	Allowable Values	Required?
Token	<p>On your first invocation of SetExpressCheckoutRequest, the value of this token is returned by SetExpressCheckoutResponse.</p> <p>IMPORTANT: Include this element and its value only if you want to modify an existing checkout session with another invocation of SetExpressCheckoutRequest; for example, if you want the customer to edit his shipping address on PayPal.</p> <p>Character length and limitations: 20 single-byte characters</p>	xs:string	See the description of “Token” on page 60.	No
OrderTotal	<p>The total cost of the order to the customer. If shipping cost and tax charges are known, include them in OrderTotal; if not, OrderTotal should be the current sub-total of the order.</p> <p>NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies.</p> <p>Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).</p>	cc:BasicAmount Type	See description.	Yes
MaxAmount	<p>The expected maximum total amount of the complete order, including shipping cost and tax charges.</p> <p>NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies.</p> <p>Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).</p>	cc:BasicAmount Type	See description.	No
Order Description	<p>Description of items the customer is purchasing.</p> <p>Character length and limitations: 127 single-byte alphanumeric characters</p>	xs:string	See description.	No

TABLE 6.1 SetExpressCheckoutRequest Fields

Element	Description	Data Type	Allowable Values	Required?
Custom	<p>A free-form field for your own use, such as a tracking number or other value you want PayPal to return on</p> <p>GetExpressCheckoutDetailsResponse and DoExpressCheckoutPaymentReResponse ..</p> <p>Character length and limitations: 256 single-byte alphanumeric characters</p>	xs:string	See description.	No
InvoiceID	<p>Your own unique invoice or tracking number. PayPal returns this value to you on DoExpressCheckoutPaymentReResponse .</p> <p>Character length and limitations: 127 single-byte alphanumeric characters</p>	xs:string	See description.	No
ReturnURL	<p>URL to which the customer's browser is returned after choosing to pay with PayPal.</p> <p>NOTE: PayPal recommends that the value of ReturnURL be the final review page on which the customer confirms the order and payment.</p> <p>Character length and limitations: no limit. Must be URL-encoded.</p>	xs:string	See description.	Yes
CancelURL	<p>URL to which the customer is returned if he does not approve the use of PayPal to pay you.</p> <p>NOTE: PayPal recommends that the value of CancelURL be the original page on which the customer chose to pay with PayPal.</p> <p>Character length and limitations: no limit</p>	xs:string	See description.	Yes
Address	<p>Customer's shipping address.</p> <p>NOTE: If you include a shipping address and set the AddressOverride element on the request, PayPal returns this same address in GetExpressCheckoutDetailsResponse.</p>	ebl:AddressType	See Table 6.2 on page 59 .	No

TABLE 6.1 SetExpressCheckoutRequest Fields

Element	Description	Data Type	Allowable Values	Required?
ReqConfirmShipping	<p>The value 1 indicates that you require that the customer's shipping address on file with PayPal be a confirmed address.</p> <p>NOTE: Setting this element overrides the setting you have specified in your Merchant Account Profile.</p> <p>Character length and limitations: One single-byte numeric character.</p>	xs:string	0 1	No
NoShipping	<p>The value 1 indicates that on the PayPal pages, no shipping address fields should be displayed whatsoever.</p> <p>Character length and limitations: Four single-byte numeric character.</p>	xs:string	0 1	No
AddressOverride	<p>The value 1 indicates that the PayPal pages should display the shipping address set by you in the Address element on this SetExpressCheckoutRequest, not the shipping address on file with PayPal for this customer.</p> <p>NOTE: Displaying the PayPal street address on file does not allow the customer to edit that address.</p> <p>Character length and limitations: Four single-byte numeric character.</p>	xs:string	0 1	No
LocaleCode	<p>Locale of pages displayed by PayPal during Express Checkout.</p> <p>Character length and limitations: Five single-byte alphabetic characters, upper- or lowercase.</p>	xs:string	AU or en_AU DE or de_DE FR or fr_FR GB or en_GB IT or it_IT JP or ja_JP US or en_US	No
PageStyle	<p>Sets the Custom Payment Page Style for payment pages associated with this button/link. PageStyle 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.</p> <p>Character length and limitations: 30 single-byte alphabetic characters.</p>	xs:string	See description.	No

TABLE 6.1 SetExpressCheckoutRequest Fields

Element	Description	Data Type	Allowable Values	Required?
cpp-header-image	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. Value must be URL-encoded. PayPal recommends that you provide an image that is stored on a secure (https) server. Character length and limitations: 127	xs:string	See description.	No
cpp-header-border-color	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	xs:string	See description.	No
cpp-header-back-color	Sets the background color for the header of the payment page. Character length and limitation: Six character HTML hexadecimal color code in ASCII	xs:string	See description.	No
cpp-payflow-color	Sets the background color for the payment page. Character length and limitation: Six character HTML hexadecimal color code in ASCII	xs:string	See description.	No
PaymentAction	<p>How you want to obtain payment:</p> <ul style="list-style-type: none"> • <code>Authorization</code> indicates that this payment is a basic authorization subject to settlement with PayPal PayPal Authorization & Capture. • <code>Order</code> indicates that this payment is an order authorization subject to settlement with PayPal PayPal Authorization & Capture. • <code>Sale</code> indicates that this is a final sale for which you are requesting payment. <p>IMPORTANT: <i>You cannot set PaymentAction to Sale or Order on SetExpressCheckoutRequest and then change PaymentAction to Authorization on the final PayPal Express Checkout API DoExpressCheckoutPaymentRequest.</i></p> <p>Character length and limit: Up to 13 single-byte alphabetic characters</p>	ebl:PaymentAction CodeType xs:token	Default: The transaction resulting from DoExpress Checkout Payment Request will be a final sale. Authorization Order Sale	No

TABLE 6.1 *SetExpressCheckoutRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
BuyerEmail	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	eb1:EmailAddress Type	See description.	No

NOTE: The AddressType elements are required only if you include the Address element in the SOAP request.

TABLE 6.2 *Address (Shipping Address): AddressType Elements*

Element	Descriptions	Data Type	Allowable Values	Required?
Name	Person's name associated with this shipping address. Character length and limitations: 32 single-byte characters	xs:string	See description.	No
Street1	First street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	Yes
Street2	Second street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	No
CityName	Name of city. Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
StateOr Province	State or province Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
PostalCode	U.S. Zip code or other country-specific postal code Character length and limitations: 20 single-byte characters	xs:string	See description.	Yes
Country	Country code. Character limit: Two single-byte characters.	eb1:CountryCode Type xs:string	See Appendix B .	Yes

SetExpressCheckoutResponse

Response to *SetExpressCheckoutRequest*.

Fields

TABLE 6.3 *SetExpressCheckoutResponse Fields*

Element	Description	Data Type	Value
Token	<p>A timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout.</p> <p>NOTE: The token expires after three hours.</p> <p>If you set Token in the <i>SetExpressCheckoutRequest</i>, the value of Token in the response is identical to the value in the request.</p> <p>Character length and limitations: 20 single-byte characters</p>	xs:string	See description.

GetExpressCheckoutDetails

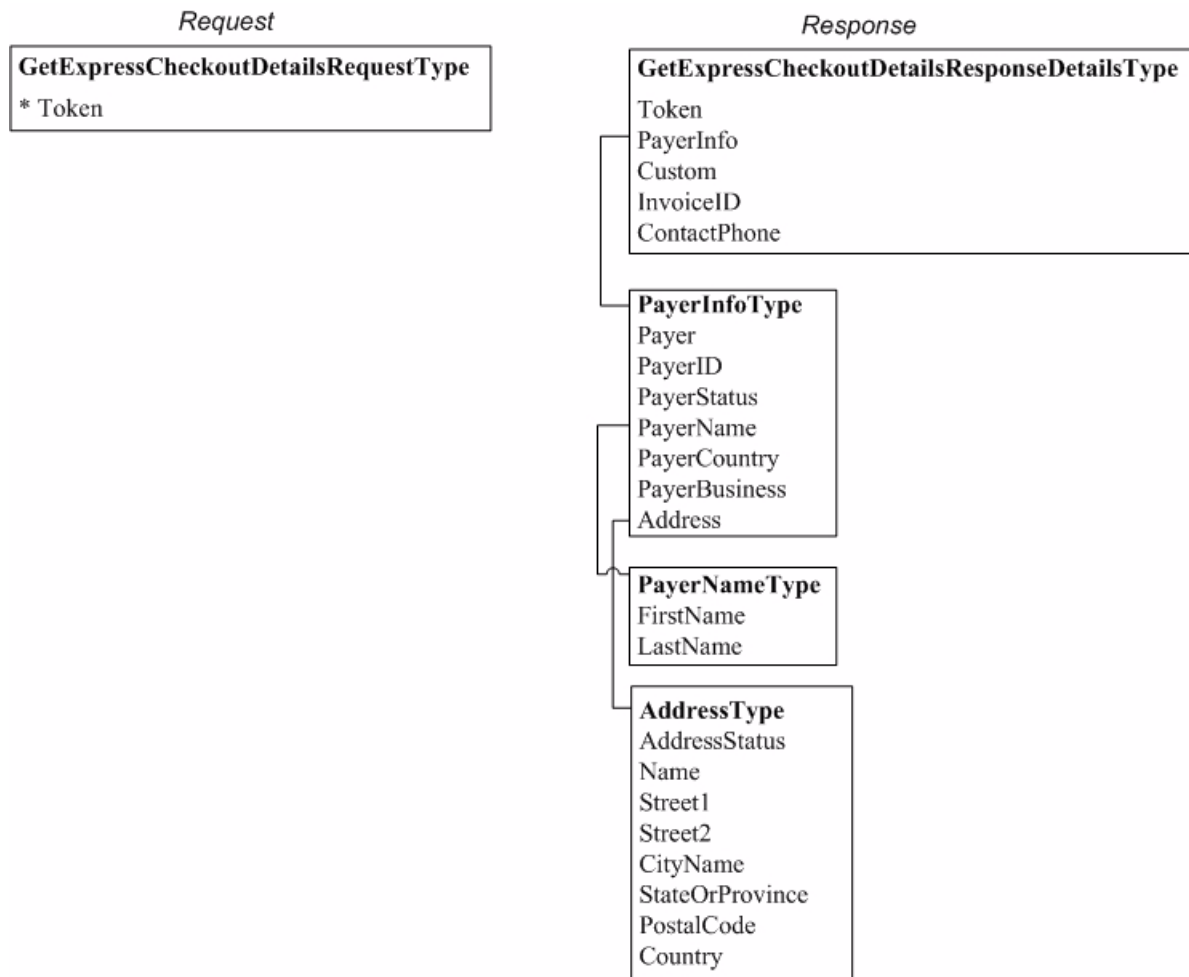
GetExpressCheckoutDetails returns information about the customer, including name and address on file with PayPal.

Diagram of GetExpressCheckoutDetails Types

The following diagram represents the composition of the GetExpressCheckoutDetailsRequestType and GetExpressCheckoutDetailsResponseType elements.

Elements required in the request are indicated with an asterisk.

FIGURE 6.2 GetExpressCheckout Types



GetExpressCheckoutDetailsRequest

Obtain details about a payment to be processed by PayPal Express Checkout.

Fields

TABLE 6.4 *GetExpressCheckoutDetailsRequest Fields*

Element	Description	Data Type	Allowable Values	Required?
Token	A timestamped token, the value of which was returned by SetExpressCheckoutResponse. Character length and limitations: 20 single-byte characters	xs:string	An unexpired token	Yes

GetExpressCheckoutDetailsResponse

Response to GetExpressCheckoutDetailsRequest.

Fields

TABLE 6.5 *GetExpressCheckoutDetailsResponse Fields*

Element	Description	Data Type	Possible Values
Token	The timestamped token value that was returned by SetExpressCheckoutResponse and passed on GetExpressCheckoutDetailsRequest. Character length and limitations: 20 single-byte characters	xs:string	See the description of “Token” on page 60.
PayerInfo	Information about the payer.	ebl:PayerInfoType	See Table 6.6 on page 63.
Custom	A free-form field for your own use, as set by you in the Custom element of SetExpressCheckoutRequest. Character length and limitations: 256 single-byte alphanumeric characters	xs:string	See description.
InvoiceID	Your own invoice or tracking number, as set by you in the InvoiceID element of SetExpressCheckoutRequest. Character length and limitations: 127 single-byte alphanumeric characters	xs:string	See description.
ContactPhone	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.	xs:string	See description.

NOTE: Empty elements are returned if there is representative data for the customer. For example, if the customer does not represent a business (and therefore has no business name on file with PayPal), the returned element has no value, like this:
<PayerBusiness/>.

TABLE 6.6 Response: PayerInfoType Elements

Element	Description	Data Type	Possible Values
Payer	Email address of payer. Character length and limitations: 127 single-byte characters	ebl:EmailAddressType	See description.
PayerID	Unique encrypted PayPal customer account number. Character length and limitations: 17 single-byte characters maximum.	ebl:UserIDType	See description.
PayerStatus	Status of payer. Character length and limitations: 10 single-byte alphabetic characters.	ebl:PayPalUserStatusCodeType	verified unverified
PayerName	First and last name of payer	ebl:PayerNameType	See Table 6.7 on page 63.
PayerCountry	Payer's country of residence in the form of ISO standard 3166 two-character country codes. Character length and limitations: Two single-byte characters	ebl:CountryCodeType	See Appendix B .
PayerBusiness	Payer's business name. Character length and limitations: 127 single-byte characters	xs:string	See description.
Address	Payer's shipping address address information.	xs:string	See Table 6.8 on page 64.

TABLE 6.7 Response: PayerName Elements

Element	Description	Data Type	Possible Values
FirstName	Payer's first name. Character length and limitations: 25 single-byte characters	ebl:PersonNameType	See description.
LastName	Payer's last name. Character length and limitations: 25 single-byte characters	ebl:PersonNameType	See description.

TABLE 6.8 *Response: AddressType Fields*

Element	Descriptions	Data Type	Possible Values
AddressStatus	Status of street address on file with PayPal	ebl:AddressStatus TypeCode	none Confirmed Unconfirmed
Name	Person's name associated with this address. Character length and limitations: 32 single-byte characters	xs:string	See description.
Street1	First street address. Character length and limitations: 100 single-byte characters	xs:string	See description.
Street2	Second street address. Character length and limitations: 100 single-byte characters	xs:string	See description.
CityName	Name of city. Character length and limitations: 40 single-byte characters	xs:string	See description.
StateOr Province	State or province Character length and limitations: 40 single-byte characters	xs:string	See description.
PostalCode	U.S. Zip code or other country-specific postal code Character length and limitations: 20 single-byte characters	xs:string	See description.
Country	Country code. Character limit: Two single-byte characters.	ebl:CountryCode Type xs:string	See Appendix B .

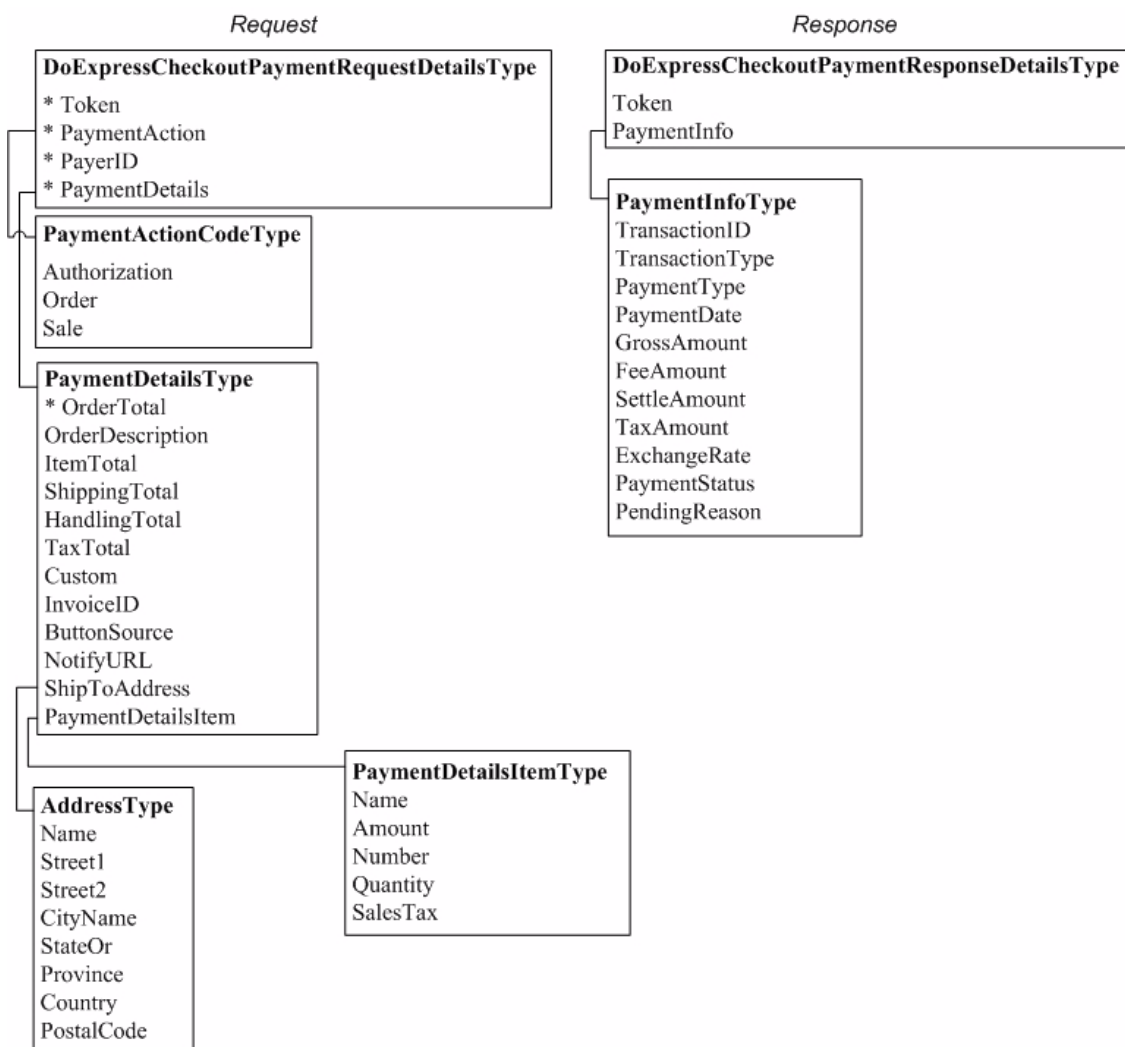
DoExpressCheckoutPayment

With DoExpressCheckoutPayment, you either obtain payment through Express Checkout for a final sale or request authorization for later capture of payment.

Diagram of DoExpressCheckoutPayment Types

The following diagram represents the composition of the DoExpressCheckoutPaymentRequestType and DoExpressCheckoutPaymentReResponseType elements. Elements required in the request are indicated with an asterisk.

FIGURE 6.3 DoExpressCheckoutPayment Types



DoExpressCheckoutPaymentRequest

Request to obtain payment with PayPal Express Checkout.

IMPORTANT: PayPal requires that a merchant using Express Checkout display to the customer the same exact amount that the merchant sends to PayPal in the `OrderTotal` element with the `DoExpressCheckoutPaymentRequest` API.

Fields

TABLE 6.9 DoExpressCheckoutPaymentRequest Fields

Element	Description	Data Type	Allowable Values	Required?
Token	The timestamped token value that was returned by <code>SetExpressCheckoutResponse</code> and passed on <code>GetExpressCheckoutDetailsRequest</code> . Character length and limitations: 20 single-byte characters	xs:string	See description.	Yes
PaymentAction	How you want to obtain payment: <ul style="list-style-type: none"> Authorization indicates that this payment is a basic authorization subject to settlement with PayPal PayPal Authorization & Capture. Order indicates that this payment is an order authorization subject to settlement with PayPal PayPal Authorization & Capture. Sale indicates that this is a final sale for which you are requesting payment. IMPORTANT: <i>You cannot set PaymentAction to Sale or Order on SetExpressCheckoutRequest and then change PaymentAction to Authorization on the final PayPal Express Checkout API DoExpressCheckoutPaymentRequest.</i> Character length and limit: Up to 13 single-byte alphabetic characters	ebl:PaymentActionCodeType xs:token	Default: The transaction resulting from DoExpress Checkout Payment Request will be a final sale. Authorization Order Sale	Yes
PayerID	Encrypted PayPal customer account identification number as returned by <code>GetExpressCheckoutDetailsResponse</code> . Character length and limitations: 127 single-byte characters.	ebl:UserIDType	See description.	Yes
PaymentDetails	Information about the payment	ebl:PaymentDetailsType	See Table 6.10 on page 67.	Yes

TABLE 6.10 Request: PaymentDetailsType Fields

Element	Description	Data Type	Allowable Values	Required?
OrderTotal	Total of order, including shipping, handling, and tax. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	Yes
ItemTotal	Sum of cost of all items in this order. Character length and limitations: 127 single-byte characters	ebl:BasicAmount Type	See description.	No
ShippingTotal	Total shipping costs for this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No
HandlingTotal	Total handling costs for this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No
TaxTotal	Sum of tax for all items in this order. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	ebl:BasicAmount Type	See description.	No

TABLE 6.10 Request: PaymentDetailsType Fields

Element	Description	Data Type	Allowable Values	Required?
OrderDescription	Description of items the customer is purchasing. Character length and limitations: 127 single-byte alphanumeric characters	xs:string	See description.	No
Custom	A free-form field for your own use. Character length and limitations: 256 single-byte alphanumeric characters	xs:string	See description.	No
InvoiceID	Your own invoice or tracking number, as set by you in the InvoiceID element of SetExpressCheckoutRequest. Character length and limitations: 127 single-byte alphanumeric characters	xs:string	See description.	No
ButtonSource	An identification code for use by third-party applications to identify transactions. Character length and limitations: 32 single-byte alphanumeric characters	xs:string	See description.	No
NotifyURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction. NOTE: If you do not specify NotifyURL 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	xs:string	See description.	No
ShipToAddress	Address the order will be shipped to.	ebl:AddressType	See Table 6.11 on page 68.	No
PaymentDetailsItem	Details about each individual item included in the order	ebl:PaymentDetailsItemType	See Table 6.12 on page 69.	No

TABLE 6.11 Request: ShipToAddress: AddressType Fields

Element	Descriptions	Data Type	Allowable Values	Required?
Name	Person's name associated with this address. Character length and limitations: 32 single-byte characters	xs:string	See description.	Yes
Street1	First street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	Yes

TABLE 6.11 Request: ShipToAddress: AddressType Fields

Element	Descriptions	Data Type	Allowable Values	Required?
Street2	Second street address. Character length and limitations: 100 single-byte characters	xs:string	See description.	No
CityName	Name of city. Character length and limitations: 40 single-byte characters	xs:string	See description.	Yes
StateOr Province	State or province. Character length and limitations: 40 single-byte characters	xs:string	See description.	No
PostalCode	U.S. ZIP code or other country-specific postal code. Character length and limitations: 20 single-byte characters	xs:string	See description.	No
Country	Country code. Character limit: Two single-byte characters	eb1:CountryCode Type xs:string	See Appendix B .	Yes

TABLE 6.12 Request: PaymentDetailsItemType Fields

Element	Description	Data Type	Allowable Values	Required?
Name	Item name. Character length and limitations: 127 single-byte characters	xs:string	See description.	No
Amount	Cost of item NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. Limitations: Must not exceed \$10,000 USD in any currency. No currency symbol. Decimal separator must be a period (.), and the thousands separator must be a comma (,).	eb1:BasicAmount Type	See description.	No
Number	Item number. Character length and limitations: 127 single-byte characters	xs:string	See description.	No
Quantity	Item quantity. Character length and limitations: Any positive integer	xs:string	See description.	No

TABLE 6.12 Request: *PaymentDetailsItemType* Fields

Element	Description	Data Type	Allowable Values	Required?
SalesTax	Item sales tax. Character length and limitations: any valid currency amount; currency code is set the same as for OrderTotal.	xs:string	See description.	No

DoExpressCheckoutPaymentResponse

Response to DoExpressCheckoutPaymentRequest.

Fields

TABLE 6.13 DoExpressCheckoutPaymentResponse Fields

Element	Description	Data Type	Possible Values
Token	The timestamped token value that was returned by SetExpressCheckoutResponse and passed on GetExpressCheckoutDetailsRequest. Character length and limitations:20 single-byte characters	xs:string	See the description of “Token” on page 60.
PaymentInfo	Information about the payment.	ebl:PaymentInfo Type	See Table 6.14 on page 71.

TABLE 6.14 Response: PaymentInfoType Elements

Element	Description	Data Type	Possible Values
TransactionID	Unique transaction ID of the payment. NOTE: If the PaymentAction of the request was Authorization, you will need the value of TransactionID for use with PayPal Authorization & Capture. Character length and limitations:17 single-byte characters	xs:string	Transaction-specific
Transaction Type	The type of transaction Character length and limitations:15 single-byte characters	ns:Payment TransactionCode Type	cart express-checkout
PaymentType	Indicates whether the payment is instant or delayed. Character length and limitations: Seven single-byte characters	ebl:PaymentCode Type xs:string	none echeck instant
PaymentDate	Time/date stamp of payment	xs:dateTime	Transaction-specific
GrossAmount	The final amount charged, including any shipping and taxes from your Merchant Profile.	ebl:BasicAmount Type	Transaction-specific
FeeAmount	PayPal fee amount charged for the transaction	ebl:BasicAmount Type	Transaction-specific

TABLE 6.14 Response: PaymentInfoType Elements

Element	Description	Data Type	Possible Values
SettleAmount	Amount deposited in your PayPal account after a currency conversion.	ebl:BasicAmount Type	Transaction-specific
TaxAmount	Tax charged on the transaction.	ebl:BasicAmount Type xs:string	Transaction-specific
ExchangeRate	Exchange rate if a currency conversion occurred. Relevant only if you 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 multiplier	xs:string	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.	ebl:PaymentStatus CodeType xs:token	Completed Pending
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.	ebl:PendingStatus CodeType xs:token	none address echeck intl multi-currency verify other

7

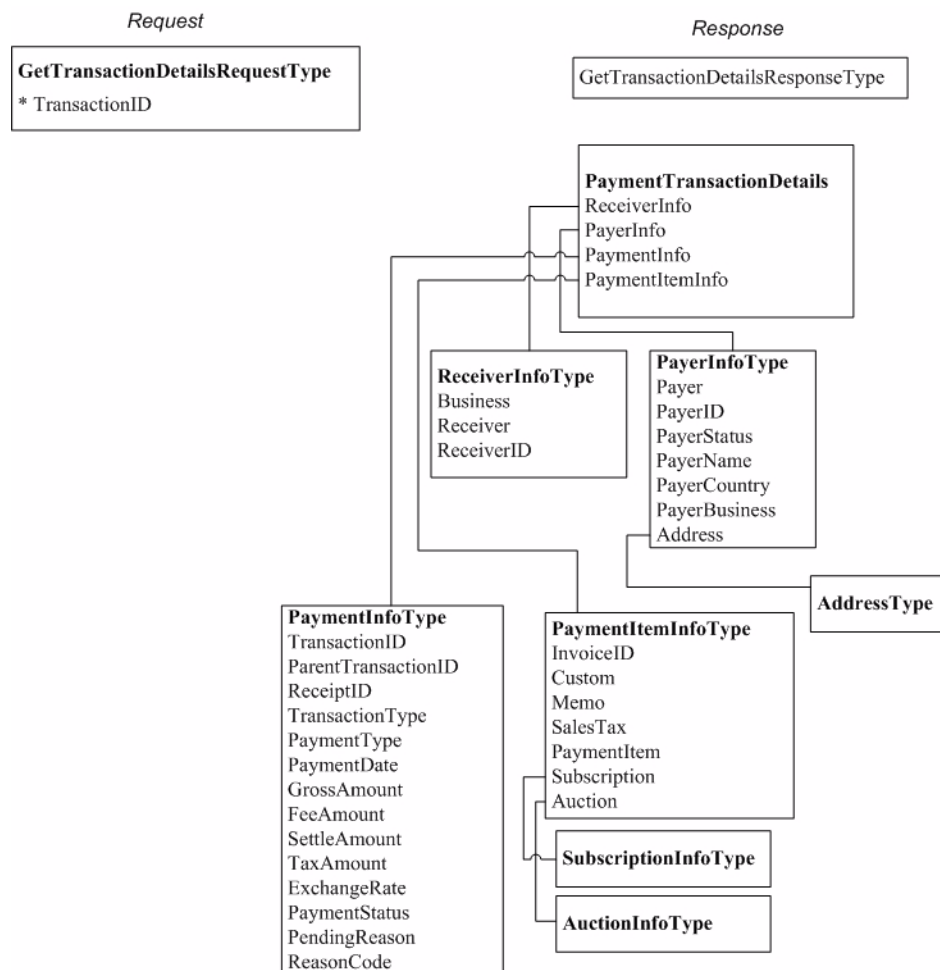
GetTransactionDetails API

The GetTransactionDetails API retrieves information about a single transaction.

Diagram of GetTransactionDetails Types

The following diagram represents the composition of the GetTransactionDetailsRequestType and GetTransactionDetailsResponseType elements.

FIGURE 7.1 GetTransactionDetails Types



GetTransactionDetailsRequest

Get details about a transaction.

Fields

TABLE 7.1 *GetTransactionDetailsRequest Fields*

Element	Description	Data Type	Possible Values	Required?
TransactionID	<p>Unique identifier of a transaction.</p> <p>NOTE: The details for some kinds of transactions cannot be retrieved with <code>GetTransactionDetailsRequest</code>. You cannot obtain details of bank transfer withdrawals, for example.</p> <p>Character length and limitations: 17 single-byte alphanumeric characters</p>	xs:string	Transaction-specific	Yes

GetTransactionDetailsResponse

Response to `GetTransactionDetailsRequest`.

Fields

For error codes and messages and their meanings, see Appendix A, “Error Codes and Messages for All PayPal APIs.”

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
ReceiverInfo		Includes elements described below	ebl:ReceiverInfo Type
	Business	<p>Email address or account ID of the payment recipient (the seller). Equivalent to <code>Receiver</code> if payment is sent to primary account.</p> <p>Character length and limitations: 127 single-byte alphanumeric characters</p>	xs:string

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	Receiver	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	xs:string
	ReceiverID	Unique account ID of the payment recipient (the seller). This value is the same as the value of the recipient's referral ID.	xs:string
PayerInfo		Includes elements described below	ebl:PayerInfoType
	Payer	Email address of payer Character length and limitations: 127 single-byte characters	ns:EmailAddressType
	PayerID	Unique customer ID Character length and limitations: 17 single-byte characters	ebl:UserIDType
	PayerStatus	Status of payer's address	ebl:PayPalUser StatusCodeType Verified Unverified
	Salutation	Payer's salutation Character length and limitations: 20 single-byte characters	xs:string
	FirstName	Payer's first name Character length and limitations: 25 single-byte characters	ebl:NameType
	MiddleName	Payer's middle name Character length and limitations: 25 single-byte characters	ebl:NameType
	LastName	Payer's last name Character length and limitations: 25 single-byte characters	ebl:NameType
	Suffix	Payer's suffix Character length and limitations: 12 single-byte characters	ebl:SuffixType

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	PayerCountry	Payment sender's country of residence using standard two-character ISO 3166 country codes. See Appendix B . Character length and limitations: Two single-byte characters	ebl:CountryCode Type
	PayerBusiness	Payer's business name. Character length and limitations: 127 single-byte characters	xs:string
Address		Includes the following elements.	ebl:AddressType
	AddressOwner	eBay company that maintains this address	ebl:AddressOwner TypeCode xs:token eBay PayPal
	AddressStatus	Status of the address on file with PayPal	ebl:AddressStatus CodeType xs:token None Confirmed Unconfirmed
	Name	Person's name associated with this address. Character length and limitations: 32 single-byte alphanumeric characters	xs:string
	Street1	First street address. Character length and limitations: 300 single-byte alphanumeric characters	xs:string
	Street2	Second street address. Character length and limitations: 300 single-byte alphanumeric characters	xs:string
	CityName	Name of city. Character length and limitations: 120 single-byte alphanumeric characters	xs:string
	StateOrProvince	State or province. Character length and limitations: 120 single-byte alphanumeric characters	xs:string
	Country	Character limit: Two single-byte characters. See Appendix B .	ebl:CountryCode Type xs:string

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	CountryName	Expanded name of country. Character length and limitations: 64 single-byte alphanumeric characters	xs:string
PaymentInfo		Includes the following elements.	ebl:PaymentInfo Type
	TransactionID	PayPal transaction identification number Character length and limitations: 17 single-byte characters	xs:string
	ReceiptID	Receipt ID Character length and limitations: 16 digits in xxxx-xxxx-xxxx-xxxx format	xs:string
	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.	ebl:Payment TransactionCode Type xs:token cart send_money web-accept subscr-failed subscr-cancel subscr-payment subscr-signup subscr-eot subscr-modify mercht-pmt mass-pay virtual-terminal
	PaymentType	The type of payment	ebl:PaymentCode Type xs:string none echeck instant
	PaymentDate	Date and time of payment	xs:dateTime
	GrossAmount	Full amount of the customer’s payment, before transaction fee is subtracted	xs:string
	FeeAmount	Transaction fee associated with the payment	xs:string

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	SettleAmount	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.	ebl:BasicAmount Type
	TaxAmount	Amount of tax for transaction	xs:string
	ExchangeRate	Exchange rate for transaction	xs:string
	PaymentStatus	<p>The status of the payment:</p> <p>None: No status</p> <p>Canceled-Reversal: 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.</p> <p>Completed: The payment has been completed, and the funds have been added successfully to your account balance.</p> <p>Denied: You denied the payment. This happens only if the payment was previously pending because of possible reasons described for the PendingReason element.</p> <p>Expired: This authorization has expired and cannot be captured.</p> <p>Failed: The payment has failed. This happens only if the payment was made from your customer's bank account.</p> <p>In-Progress: The transaction is in process of authorization and capture.</p> <p>Partially-Refunded: The transaction has been partially refunded.</p> <p>Pending: The payment is pending. See “PendingReason” on page 79 for more information.</p> <p>Refunded: You refunded the payment.</p> <p>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.</p> <p>Processed: A payment has been accepted.</p> <p>Voided: This authorization has been voided.</p>	ebl:PaymentStatus CodeType xs:token None Canceled-Reversal Completed Denied Expired Failed In-Progress Partially-Refunded Pending Processed Refunded Reversed Voided

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	PendingReason	<p>The reason the payment is pending:</p> <p>none: No pending reason</p> <p>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.</p> <p>authorization: You set <PaymentAction> Authorization</PaymentAction> on SetExpressCheckoutRequest and have not yet captured funds.</p> <p>echeck: The payment is pending because it was made by an eCheck that has not yet cleared.</p> <p>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.</p> <p>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.</p> <p>unilateral: The payment is pending because it was made to an email address that is not yet registered or confirmed.</p> <p>upgrade: The payment is pending because it was made via credit card and you must upgrade your account to Business or Premier status in order to receive the funds. upgrade can also mean that you have reached the monthly limit for transactions on your account.</p> <p>verify: The payment is pending because you are not yet verified. You must verify your account before you can accept this payment.</p> <p>other: The payment is pending for a reason other than those listed above. For more information, contact PayPal Customer Service.</p>	<p>ebl:PendingStatus</p> <p>CodeType</p> <p>xs:token</p> <p>none</p> <p>authorization</p> <p>address</p> <p>echeck</p> <p>intl</p> <p>multi-currency</p> <p>unilateral</p> <p>upgrade</p> <p>verify</p> <p>other</p>

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	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.	ebl:ReasonCodeType xs:token none chargeback guarantee buyer-complaint refund other
PaymentItem Info		Includes the following elements	ebl:PaymentItem InfoType
	InvoiceID	Invoice number you set in the original transaction. Character length and limitations: 127 single-byte alphanumeric characters	xs:string
	Custom	Custom field you set in the original transaction. Character length and limitations: 127 single-byte alphanumeric characters	xs:string
	Memo	Memo entered by your customer in PayPal Website Payments note field. Character length and limitations: 255 single-byte alphanumeric characters	xs:string
	SaleTax	Amount of tax charged on payment	xs:string
	Name	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	xs:string

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	Number	Item number set by you. If this was a shopping cart transaction, PayPal appends the number of the item to the HTML <code>item_name</code> variable. For example, <code>item_name1</code> , <code>item_name2</code> , and so forth. Character length and limitations: 127 single-byte alphanumeric characters	xs:string
	Quantity	Quantity set by you or entered by the customer. Character length and limitations: no limit	xs:string
	Options	PayPal item options for shopping cart	ns:OptionType name: xs:string value: xs:string
Subscription		Includes the following elements	ebl:SubscriptionInfoType
	SubscriptionID	ID generated by PayPal for the subscriber. Character length and limitations: no limit	xs:string
	SubscriptionDate	Subscription start date	xs:dateTime
	EffectiveDate	Date when the subscription modification will be effective	xs:dateTime
	RetryTime	Date PayPal will retry a failed subscription payment.	xs:dateTime
	Username	Username generated by PayPal and given to subscriber to access the subscription. Character length and limitations: 64 alphanumeric single-byte characters	xs:string
	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	xs:string
	Recurrences	The number of payment installments that will occur at the regular rate. Character length and limitations: no limit	xs:string
	Terms (Amount)	The amount subscriber is to be charged in one payment. Character length and limitations: no limit	xs:string
	Terms (Period)	The period of time that the subscriber will be charged. Character length and limitations: no limit	xs:string

TABLE 7.2 *GetTransactionDetailsResponse Fields*

Element	Included Element	Description	Data Type and Possible Values
	reattempt	Indicates whether reattempts should occur upon payment failures	xs:string
	recurring	Indicates whether regular rate recurs	xs:string Example: 1 = Yes
Auction		Includes the following elements	ebl:AuctionType
	BuyerID	Customer's auction ID	xs:string
	ClosingDate	Auction's close date	xs:string
	multiItem	Counter used for multi-item auction payments	xs:string

8

MassPay API

The MassPay API is the programmatic counterpart to the Mass Payment feature available through the PayPal website for merchants who make payments. You can process up to 250 payments per `MassPayRequest`. You must have sufficient funds in your PayPal account to cover the entire Mass Payment amount and fee. For multiple currencies, you must have enough to cover the mass payment and fee in the currency you are sending.

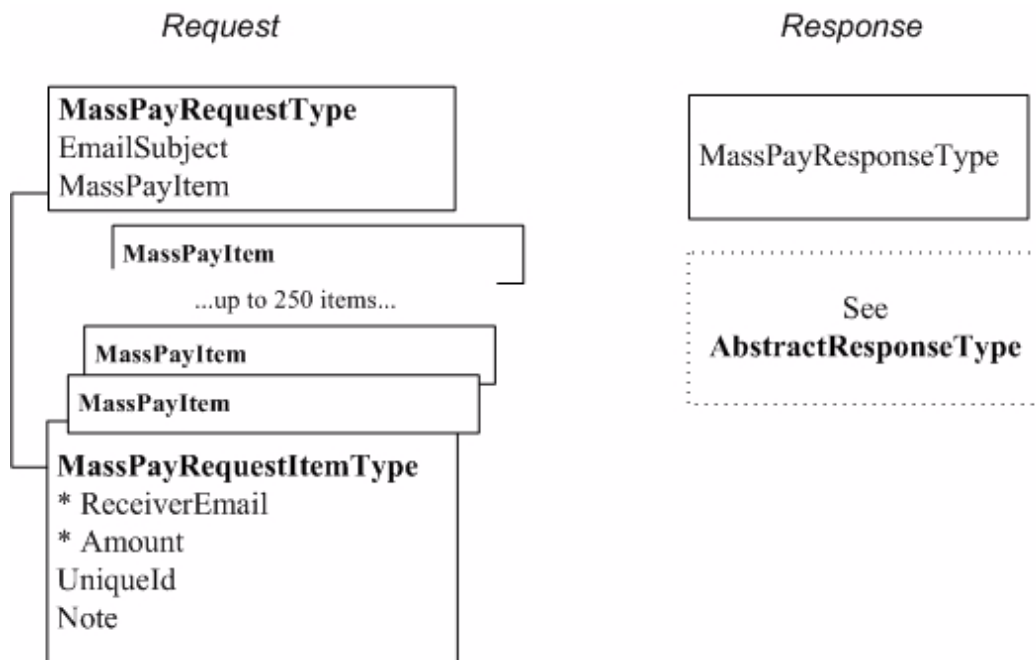
NOTE: The posting of payment transactions into individual recipient accounts is not handled by the MassPay API but by a separate PayPal process.

Instant Payment Notification: Use of the MassPay API triggers the sending of an Instant Payment Notification email to the recipient of the funds.

Diagram of MassPay Types

The following diagram represents the composition of the `MassPayRequestType`, `MassPayRequestItemType`, and `MassPayResponseType` elements.

FIGURE 8.1 *MassPay Types*



MassPayRequest

Process payments *en masse* to up to 250 different recipients.

Fields

TABLE 8.1 *MassPayRequestType Fields*

Element	Description	Data Type	Possible Values	Required?
EmailSubject	Subject line of the email sent to all recipients. This subject is not contained in the input file; you must generate it with your application. Character length and limitations: 255 single-byte alphanumeric characters	xs:string	See description.	No
MassPayItem	Details of each payment. NOTE: A single MassPayRequest can include up to 250 MassPayItems	eb1:MassPayItem Type	See following table.	Yes

TABLE 8.2 *MassPayRequestItem Type Fields*

Element	Description	Data Type	Possible Values	Required?
ReceiverEmail	Email address of recipient on file with PayPal. Character length and limitations: 127 single-byte alphanumeric characters	xs:string	Transaction-specific	Yes
Amount	Payment amount to be sent to each recipient. NOTE: You must set the <code>currencyID</code> attribute to one of the three-character currency codes for any of the supported PayPal currencies. See page 23 . IMPORTANT: You cannot mix currencies in a single MassPayRequest. A single request must include items that are of the same currency.	xs:string	Transaction-specific	Yes
UniqueId	Transaction-specific identification number for tracking in an accounting system. Character length and limitations: 30 single-byte characters. No whitespace allowed.	xs:string	Transaction-specific	No
Note	Custom note for each recipient. Character length and limitations: 4,000 single-byte alphanumeric characters	xs:string	Transaction-specific	No

MassPayResponse

Response to MassPayRequest.

Fields

For error codes and messages and their meanings, see Appendix A, “Error Codes and Messages for All PayPal APIs.

The elements returned are the same as for AbstractResponseType. See [page 28](#).



9

RefundTransaction API

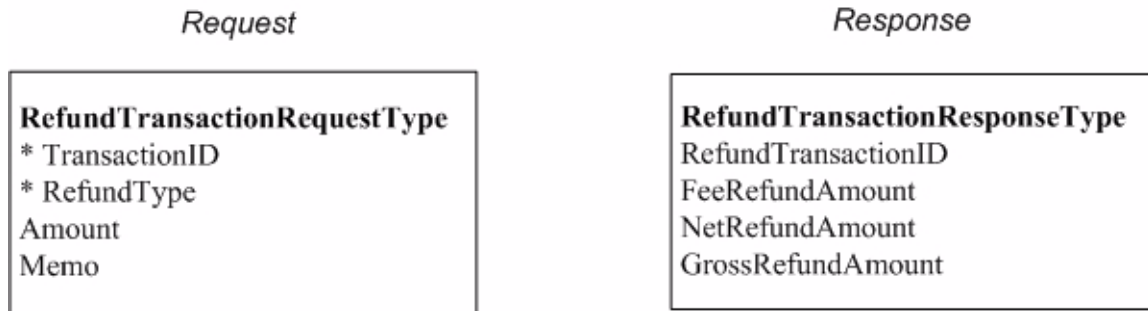
Use the RefundTransaction API to make either full or partial refunds.

Instant Payment Notification: Use of the RefundTransaction API triggers the sending of an Instant Payment Notification email to the recipient of the refund.

Diagram of RefundTransaction Types

The following diagram represents the composition of the RefundTransactionRequestType and RefundTransactionResponseType elements.

FIGURE 9.1 RefundTransaction Types



RefundTransactionRequest

Request to refund a payment.

With RefundTransactionRequest, you must always pass the values of TransactionID and RefundType. If RefundType is set to Full, you must *not* set Amount; however, if RefundType is Partial, you *must* set Amount.

Fields

TABLE 9.1 RefundTransactionRequest Fields

Element	Description	Data Type	Possible Values	Required?
TransactionID	Unique identifier of a transaction Character length and limitations: 17 single-byte alphanumeric characters	xs:string	Transaction-specific	Yes
RefundType	Type of refund you are making	ebl:RefundPurpose TypeCodeType xs:token	Other Full Partial	Yes
Amount	Refund amount. Amount is required if RefundType is Partial. NOTE: If RefundType is Full, do not set Amount.	ebl:BasicAmount Type	Transaction-specific	See description
Memo	Custom memo about the refund. Character length and limitations: 255 single-byte alphanumeric characters	xs:string	Transaction-specific	No

RefundTransactionResponse

Response to RefundTransactionRequest.

Fields

TABLE 9.2 RefundTransactionResponse Fields

Element	Description	Data Type	Value
Refund TransactionID	Unique transaction ID of the refund. Character length and limitations: 17 single-byte characters	xs:string	See description.
FeeRefund Amount	Transaction fee refunded to original recipient of payment	ebl:BasicAmount Type	See description.
GrossRefund Amount	Amount of money refunded to original payer	ebl:BasicAmount Type	See description.
NetRefund Amount	Amount subtracted from PayPal balance of original recipient of payment to make this refund	ebl:BasicAmount Type	See description.

10

TransactionSearch API

With `TransactionSearchRequest`, you must always set the `StartDate` for your search. The effect of setting other elements is additive or can alter the search criteria. For example, if you search for a particular `TransactionID`, you do not also need to set the `Payer` search element.

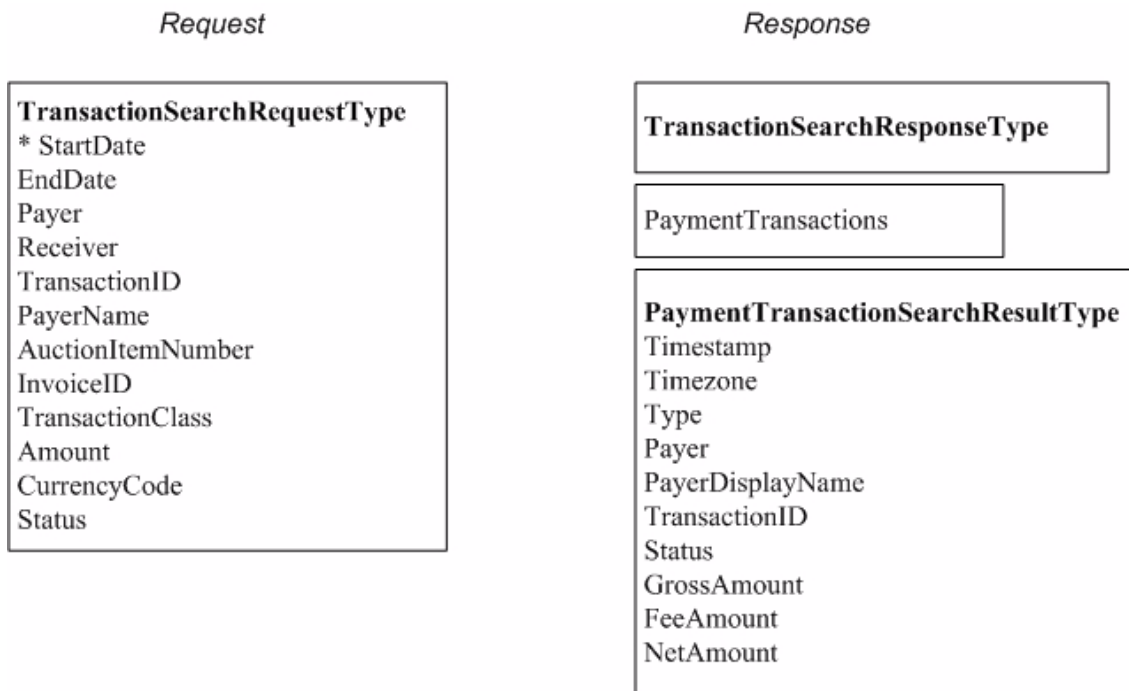
`TransactionSearchResponse` returns up to 100 exact matches. Partial matches are displayed. For example, setting the `TransactionSearchRequest` `FirstName` to “Jess” returns results such as “Jessica” and “Jesse”.

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

Diagram of TransactionSearch Types

The following diagram represents the composition of the `TransactionSearchRequestType` and `PaymentTransactionSearchResultsType` elements.

FIGURE 10.1 *TransactionSearch Types*



TransactionSearchRequest

Request to search transaction history.

Fields

TABLE 10.1 TransactionSearchRequest Fields

Element	Description	Data Type	Allowable Values	Required?
StartDate	The earliest transaction date at which to start the search. NOTE: No wildcards are allowed.	xs:dateTime	Transaction-specific	Yes
EndDate	The latest transaction date to be included in the search	xs:dateTime	Transaction-specific	No
Payer	Search by the buyer's email address Character length and limitations: 127 single-byte alphanumeric characters	ebl:EmailAddress Type xs:string	Transaction-specific	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.	ebl:EmailAddress Type xs:string	Transaction-specific	No
ReceiptID	Search by the PayPal Account Optional receipt ID	xs:string	Transaction-specific	No
TransactionID	Search by the transaction ID. NOTE: The returned results are from the merchant's transaction records. Character length and limitations: 19 single-byte characters maximum	ebl:TransactionID xs:string	Transaction-specific	No
InvoiceID	Search by invoice identification key, as set by you for the original transaction. InvoiceID searches the invoice records for items sold by the merchant, not the items purchased. NOTE: The value for InvoiceID must exactly match an invoice identification number. No wildcards are allowed. Character length and limitations: 127 single-byte characters maximum	xs:string	Transaction-specific	No
PayerName	Search by the buyer's name Salutation: 20 single-byte character limit FirstName: 25 single-byte character limit MiddleName: 25 single-byte character limit LastName: 25 single-byte character limit Suffix: 12 single-byte character limit	ebl:PersonNameType xs:string	Transaction-specific	No

TABLE 10.1 TransactionSearchRequest Fields

Element	Description	Data Type	Allowable Values	Required?
AuctionItem Number	Search by item number of the purchased goods. NOTE: To search for purchased items not related to auctions, set the AuctionItemNumber element to the value of the HTML item_number variable set in the shopping cart for the original transaction.	xs:string	Transaction-specific	No
Transaction Class	Search by classification of transaction. NOTE: Some kinds of possible classes of transactions are not searchable with TransactionSearchRequest. 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	eb1:Payment TransactionClass CodeType xs:token	See description.	No

TABLE 10.1 TransactionSearchRequest Fields

Element	Description	Data Type	Allowable Values	Required?
Amount	Search by transaction amount NOTE: You must set the currencyID attribute to one of the three-character currency codes for any of the supported PayPal currencies.	ebl:BasicAmount Type xs:string	Transaction-specific	No
CurrencyCode	Search by currency code	xs:token	Transaction-specific	No
Status	Search by transaction status: Pending: The payment is pending. The specific reason the payment is pending is returned by the GetTransactionDetails API PendingReason element. For more information, see “PendingReason” on page 79 . 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.	ebl:Payment Transaction StatusCodeType xs:token	Pending Processing Success Denied Reversed	No

TransactionSearchResponse

Response to TransactionSearchRequest.

Fields

For error codes and messages and their meanings, see Appendix A, “Error Codes and Messages for All PayPal APIs.

TABLE 10.2 TransactionSearchResponse Fields

Element	Description	Data Type	Possible Values
Timestamp	The date and time (in UTC/GMT format) the transaction occurred	xs:dateTime	Transaction-specific
Timezone	The time zone of the transaction	xs:string	Transaction-specific
Type	The type of the transaction	xs:string	Transaction-specific

TABLE 10.2 TransactionSearchResponse Fields

Element	Description	Data Type	Possible Values
Payer	The email address of the payer	ebl:EmailAddress Type xs:string	Transaction-specific
Payer DisplayName	Display name of the payer	xs:string	Transaction-specific
TransactionID	The transaction ID of the seller	xs:string	Transaction-specific
Status	The status of the transaction. For details about statuses, see “PaymentStatus” on page 78 .	xs:string	Transaction-specific
GrossAmount	The total gross amount charged, including any profile shipping cost and taxes	ebl:BasicAmount Type xs:string	Transaction-specific
FeeAmount	The fee that PayPal charged for the transaction	BasicAmount Type xs:string	Transaction-specific
NetAmount	The net amount of the transaction	BasicAmount Type xs:string	Transaction-specific





Error Codes and Messages for All PayPal APIs

General API Errors

TABLE A.1 General API Errors

Error Code	Short Message	Long Message
10001	Internal Error	Internal Error
10002	Authentication /Authorization Failed	Username/Password is incorrect
10003	Invalid argument	Start date is a required parameter
10004	Invalid argument	The transaction id is not valid
10005	Option not supported	Option not supported
10006	Version error	Version is not supported
10007	Permission denied	You do not have permission to refund this transaction
10008	Security error	Security header is not valid
10010	Invalid invoice	Non-ASCII invoice id is not supported

General API Warnings

TABLE A.2 *General API Warnings*

Error Code	Short Message	Long Message
10004	Invalid argument	Version is not valid
11001	Invalid argument	Version is not valid
11002	Search warning	The number of results were truncated. Please change your search parameters if you wish to see all your results

Authorization & Capture API Errors

TABLE A.3 Authorization & Capture API Errors

Error Code	Short Message	Long Message
10010	Invalid Invoice	Non-ASCII invoice id is not supported
10600	Authorization voided	Authorization is voided.
10601	Authorization expired	Authorization has expired.
10602	Authorization completed	Authorization has already been completed.
10603	The buyer is restricted.	The buyer account is restricted.
10604	Authorization must include both buyer and seller.	Authorization transaction cannot be unilateral. It must include both buyer and seller to make an auth.
10605	Unsupported currency	Currency is not supported.
10606	Buyer cannot pay	Authorization rejected because buyer cannot pay.
10607	Auth&Capture unavailable	Authorization & Capture feature unavailable (WO).
10608	Funding source missing	The funding source is missing.
10609	Invalid TransactionID	TransactionID is invalid.
10610	Amount limit exceeded	Amount specified exceeds allowable limits.
10611	Not enabled	Auth&Capture feature is not enabled for the merchant. Contact Customer Service.
10612	No more settlement	Maximum number of allowable settlements has been reached. No more settlement for the authorization.
10613	Currency mismatch	Currency of capture must be the same as currency of authorization.
10614	Cannot void reauth	You can void only the original authorization not a reauthorization.

TABLE A.3 Authorization & Capture API Errors

Error Code	Short Message	Long Message
10615	Cannot reauth reauth	You can reauthorize only the original authorization not a reauthorization.
10616	Maximum number of reauthorization allowed for the auth is reached.	Maximum number of reauthorization allowed for the auth is reached.
10617	Reauthorization not allowed	Reauthorization is not allowed inside honor period.
10618	Transaction already voided or expired	Transaction has already been voided or expired.
10619	Invoice ID value exceeds maximum allowable length.	Invoice ID value exceeds maximum allowable length.
10620	Order has already been voided or expired.	Order has already been voided or 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.
10624	Duplicate invoice	Payment has already been made for this InvoiceID.

TABLE A.3 *Authorization & Capture API Errors*

Error Code	Short Message	Long Message
10625	Transaction refused because of an invalid argument. See additional error messages for details.	The amount exceeds the maximum amount for a single transaction.
10626	Risk	Transaction refused due to risk model

Direct Payment API Errors

TABLE A.4 Direct Payment API Errors

Error Code	Short Message	Long Message
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.
10500	No Billing Agreement	No billing agreement found for your account. Log into PayPal to check your billing agreement or contact customer service.
10501	Inactive Billing Agreement	The transaction was refused because your billing agreement is inactive. Log into PayPal to check your billing agreement or contact customer service.
10502	Expired Credit Card	The transaction failed as a result of an expired credit card. Attempt another card.
10503	Credit Limit Exceeded	The transaction failed as a result of the card exceeding the credit limit. Attempt another card.
10504	Invalid CVV2 Number	The CVV2 code is invalid. Check the number and try again.
10505	AVS Failed	The AVS returned a code which resulted in PayPal declining the transaction. Attempt another card or check address.
10506	Transaction Declined	The transaction was declined.
10507	Your account is restricted	Your account is restricted and you do not have permission to make this API call. Please contact PayPal customer service
10508	Invalid Expiration Date	The expiration date of the credit card is invalid.
10509	The IP address is missing.	The IP address is missing.
10510	Card Type Not Supported	The credit card type is not supported. Try another card type.
10511	Invalid Payment Action	The Payment Action you requested is not supported.

TABLE A.4 Direct Payment API Errors

Error Code	Short Message	Long Message
10512	The first name is missing.	The first name is missing.
10513	The last name is missing.	The last name is missing.
10514	Street address 1 in the billing address is missing.	Street address 1 in the billing address is missing.
10515	The city in the billing address is missing.	The city in the billing address is missing.
10516	The state in the billing address is missing.	The state in the billing address is missing.
10517	The country in the billing address is missing.	The country in the billing address is missing.
10518	The zip code in the billing address is missing.	The zip code in the billing address is missing.
10519	Missing Credit Card	Credit card field is missing.
10520	Transaction amounts do not match	The transaction was refused because the amount totals of the order do not match. Review the amounts of the transaction and resubmit.
10521	CC number starting with zero.	If you are using the sandbox this special case is provided for your testing. If you are not on the sandbox do not use Credit Card numbers which start with zero.
10522	Invalid credit card number.	Please check to make sure that the credit card number is valid.
10523	Unable to generate account number.	We have not been able to create an account for the Direct Payment API buyer.

TABLE A.4 Direct Payment API Errors

Error Code	Short Message	Long Message
10524	Missing Shipping Address Name	You have passed shipping address without a name.
10525	Zero Order Total	Your transaction was refused as a result of the order being zero.
10526	Unsupported Currency	The currency code submitted is not supported. Check the currency code and try again.
10527	Invalid Credit Card	The credit card can contain only numbers. Check the number and try again.
10528	Unable to make this transaction.	Unable to make this transaction. It is possible that the amount would exceed the spending limit of the payer.
10529	Street address 1 in the shipping address is missing.	Street address 1 in the shipping address is missing.
10530	The city in the shipping address is missing.	The city in the shipping address is missing.
10531	The state in the shipping address is missing.	The state in the shipping address is missing.
10532	The country in the shipping address is missing.	The country in the shipping address is missing.
10533	The zip code in the shipping address is missing.	The zip code in the shipping address is missing.
10534	The DCC user is restricted.	The account is restricted.
10535	The credit card data is invalid.	The credit card data is invalid.

TABLE A.4 Direct Payment API Errors

Error Code	Short Message	Long Message
10536	Duplicate invoice id.	The transaction was refused as a result of a duplicate invoice ID supplied. Attempt with a new invoice ID
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 exceed 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.
10540	The address is invalid.	The address is invalid.
10541	Credit Card Restricted	The transaction failed because the credit card supplied is restricted in the PayPal system. Attempt another card
10542	Invalid Email Address	The email provided is in an invalid format. Check the email address and try again.
10543	Credit Card Authorization Failed	We failed to authorize the credit card. Attempt with another card
10544	Transaction refused	The transaction was refused.
10545	Transaction refused	The transaction was refused.
10546	Transaction refused	The transaction was refused.
10547	The transaction could not be completed.	The transaction could not be completed.
10548	Ineligible Seller Account	Your account must be a business account to use Direct Payment. Please contact customer service.
10549	Ineligible Seller Account	Your account is ineligible to use Direct Payment. Please contact customer service.

Express Checkout API Errors

TABLE A.5 *Express Checkout API Errors*

Error Code	Short Message	Long Message	SOAP Request
10400	Invalid argument	Order total is missing.	SetExpressCheckoutRequest DoExpressCheckoutPaymentRequest
10401	Invalid argument	Order total is invalid.	SetExpressCheckoutRequest DoExpressCheckoutPaymentRequest
10402	Authorization only is not allowed for merchant.	This merchant account is not permitted to set PaymentAction to Authorization. Please contact Customer Service.	SetExpressCheckoutRequest DoExpressCheckoutPaymentRequest
10403	Invalid argument	Maximum amount (MaxAmount) is invalid	SetExpressCheckoutRequest
10404	Invalid argument	ReturnURL is missing.	SetExpressCheckoutRequest
10405	Invalid argument	CancelURL is missing.	SetExpressCheckoutRequest
10406	Invalid argument	The PayerID value is invalid.	DoExpressCheckoutPaymentRequest
10407	Invalid argument	Invalid buyer email address (BuyerEmail).	SetExpressCheckoutRequest
10408	Express Checkout token is missing.	Express Checkout token is missing.	SetExpressCheckoutRequest GetExpressCheckoutDetailsRequest DoExpressCheckoutPaymentRequest
10409	You are not authorized to access this info.	Express Checkout token was issued for a merchant account other than yours.	SetExpressCheckoutRequest GetExpressCheckoutDetailsRequest DoExpressCheckoutPaymentRequest
10410	Invalid token	Invalid token.	SetExpressCheckoutRequest GetExpressCheckoutDetailsRequest DoExpressCheckoutPaymentRequest
10411	This Express Checkout session has expired.	This Express Checkout session has expired. Token value is no longer valid.	SetExpressCheckoutRequest GetExpressCheckoutDetailsRequest DoExpressCheckoutPaymentRequest
10412	Duplicate invoice	Payment has already been made for this InvoiceID.	DoExpressCheckoutPaymentRequest

TABLE A.5 Express Checkout API Errors

Error Code	Short Message	Long Message	SOAP Request
10413	Invalid argument	The totals of the cart item amounts do not match order amounts.	DoExpressCheckoutPaymentRequest
10414	Invalid argument	The amount exceeds the maximum amount for a single transaction.	DoExpressCheckoutPaymentRequest
10415	Invalid argument	A successful transaction has already been completed for this token.	DoExpressCheckoutPaymentRequest
10416	Invalid argument	You have exceeded the maximum number of payment attempts for this token.	DoExpressCheckoutPaymentRequest
10417	Transaction cannot complete.	The transaction cannot complete successfully. Instruct the customer to use an alternative payment method.	DoExpressCheckoutPaymentRequest
10418	Invalid argument	The currencies of the shopping cart amounts must be the same.	DoExpressCheckoutPaymentRequest
10419	Express checkout PayerID is missing.	Express Checkout PayerID is missing.	DoExpressCheckoutPaymentRequest
10420	Invalid argument	Express Checkout PaymentAction is missing.	DoExpressCheckoutPaymentRequest
10421	This express checkout session belongs to a different customer.	This Express Checkout session belongs to a different customer. Token value mismatch.	DoExpressCheckoutPaymentRequest
10422	Customer must choose new funding sources.	The customer must return to PayPal to select new funding sources.	DoExpressCheckoutPaymentRequest
10423	Invalid argument	This transaction cannot be completed with PaymentAction of Authorization.	DoExpressCheckoutPaymentRequest
10424	Invalid argument	Shipping address is invalid.	DoExpressCheckoutPaymentRequest

TABLE A.5 Express Checkout API Errors

Error Code	Short Message	Long Message	SOAP Request
10425	Express Checkout has been disabled for this merchant.	Express Checkout has been disabled for this merchant. Please contact Customer Service.	SetExpressCheckoutRequest GetExpressCheckoutDetailsRequest DoExpressCheckoutPaymentRequest
10426	Invalid argument	Item total is invalid.	DoExpressCheckoutPaymentRequest
10427	Invalid argument	Shipping total is invalid.	DoExpressCheckoutPaymentRequest
10428	Invalid argument	Handling total is invalid.	DoExpressCheckoutPaymentRequest
10429	Invalid argument	Tax total is invalid.	DoExpressCheckoutPaymentRequest
10430	Invalid argument	Item amount is missing.	DoExpressCheckoutPaymentRequest
10431	Invalid argument	Item amount is invalid.	DoExpressCheckoutPaymentRequest
10432	Invalid argument	Invoice ID value exceeds maximum allowable length.	SetExpressCheckoutRequest
10433	Invalid argument	Value of OrderDescription element has been truncated.	SetExpressCheckoutRequest
10434	Invalid argument	Value of Custom element has been truncated.	SetExpressCheckoutRequest
10435	Invalid argument	The customer has not yet confirmed payment for this Express Checkout session.	DoExpressCheckoutPaymentRequest
10436	Invalid argument	PageStyle value exceeds maximum allowable length.	SetExpressCheckoutRequest
10437	Invalid argument	cpp-header-image value exceeds maximum allowable length.	SetExpressCheckoutRequest
10438	Invalid argument	cpp-header-border-color value exceeds maximum allowable length.	SetExpressCheckoutRequest
10439	Invalid argument	cpp-header-back-color value exceeds maximum allowable length.	SetExpressCheckoutRequest

TABLE A.5 Express Checkout API Errors

Error Code	Short Message	Long Message	SOAP Request
10440	Invalid argument	cpp-payflow-color value exceeds maximum allowable length.	SetExpressCheckoutRequest
10441	Transaction refused because of an invalid argument. See additional error messages for details.	The NotifyURL element value exceeds maximum allowable length.	DoExpressCheckoutPaymentRequest
10442	Button Source value truncated.	The bn element value exceeds maximum allowable length.	DoExpressCheckoutPaymentRequest
10443	This transaction cannot be completed with PaymentAction of Order.	This transaction cannot be completed with PaymentAction of Order.	DoExpressCheckoutPaymentRequest

Instructions for Handling Certain Express Checkout Errors

10411 – This Express Checkout session has expired (token expired)

The token returned by `SetExpressCheckoutResponse` expires after three hours. If you attempt to send the `DoExpressCheckoutPaymentRequest` after that time, you will receive error code 10411 in `DoExpressCheckoutPaymentResponse`.

Handling this error. 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 `SetExpressCheckoutRequest`.) 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.

10412 – Payment has already been made for this invoice.

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.

Handling this error. 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.

10412 – The total of the cart item amounts do not match order amounts.

If you include any of the following element values with `DoExpressCheckoutPaymentRequest`, the sum of their values must equal the value of `OrderTotal`.

- `ItemTotal`
- `ShippingTotal`
- `HandlingTotal`
- `TaxTotal`

Handling this error. 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 – 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.

10414 – You have exceeded the maximum number of payment attempts for this token.

You can send a maximum of 10 `DoExpressCheckoutPaymentRequest` SOAP requests for any single token value, after which the token becomes invalid.

Handling this error. See “10411 – This Express Checkout session has expired (token expired)” on page 108.

10417 – The transaction will not be able to complete successfully. Please use an alternative payment method.

It is possible that the payment method the customer chooses on PayPal might not succeed when you send `DoExpressCheckoutPaymentRequest`. 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 `SetExpressCheckoutRequest` 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, `DoExpressCheckoutPaymentResponse` returns error code 10417.

Handling this error. Instruct the customer that PayPal is unable to process the payment and redisplay alternative payment methods with which the customer can pay.

10421 – This Express Checkout session belongs to a different user

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 PayerIDs. The Token and PayerID returned for any particular customer by GetExpressCheckoutDetailsResponse must be the same ones you send with DoExpressCheckoutPaymentRequest.

Handling this error. Verify that your programs are properly associating the Tokens and PayerIDs.

10422 – The buyer 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 DoExpressCheckoutPaymentRequest. If the customer has a different PayPal funding source that is likely to succeed, DoExpressCheckoutPaymentResponse returns error code 10422 so you can redirect the customer back to PayPal.

Handling this error. 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. the chapter about best practices in

10423 – This payment cannot be completed using the Authorization payment action.

This error occurs if at Integration Point 1, you set PaymentAction to Sale with SetExpressCheckoutRequest but at Integration Point 3, you set PaymentAction to Authorization with DoExpressCheckoutPaymentRequest.

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 SetExpressCheckoutRequest at Integration Point 1 and switch PaymentAction to Sale with DoExpressCheckoutPaymentRequest at Integration Point 3.

GetTransactionDetails API Errors

TABLE A.6 *GetTransactionDetails API Errors*

Error Code	Short Message	Long Message
10004	Invalid transaction type	You can not get the details for this type of transaction
10004	Invalid argument	We could not get the details for this transaction
10007	Permission denied	You do not have permission to get the details of this transaction

MassPay API Errors

TABLE A.7 *MassPay API Errors*

Error Code	Short Message	Long Message
10001	Internal Error	We could not get the details for this transaction
10001	Invalid account number	The account number is invalid
10004	Invalid argument	The number of input records is greater than maximum allowed
10004	Invalid argument	The number of input records is less than or equal to zero
10004	Invalid argument	The note string length exceeds the maximum limit of 4000 characters
10004	Invalid argument	The recipient's email is missing
10004	Invalid argument	The recipient's email is invalid
10004	Invalid argument	The amount is missing
10004	Invalid argument	The currency is missing
10004	Invalid argument	Currency is not supported
10004	Invalid argument	The amount is not a valid number
10004	Invalid argument	The amount exceeds the max limit of a single mass pay item (\$10000)
10004	Invalid argument	The amount is less than or equal to zero
10004	Invalid argument	The unique id string length exceeds the maximum limit of 30 characters
10004	Invalid argument	The unique id string contains a space as a character
10004	Invalid argument	The note string length exceeds the maximum limit of 4000 characters

TABLE A.7 MassPay API Errors

Error Code	Short Message	Long Message
10004	Invalid argument	The note string length exceeds the maximum limit of 4000 characters
10301	User not allowed	The user is not allowed to send money through Mass Pay
10302	Account locked	The user account is locked
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
10304	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	// not in use	
10314	Masspay input parse error	The input to the masspay server is incorrect. Please make sure that you are using a correctly formatted input
10315	// not in use	

TABLE A.7 *MassPay API Errors*

Error Code	Short Message	Long Message
10316	// not in use	
10317	// not in use	
10318	// not in use	
10319	// not in use	
10320	// not in use	
10321	Insufficient funds	The account does not have sufficient funds to do this masspay
10322	// not in use	

RefundTransaction API Errors

TABLE A.8 *RefundTransaction API Errors*

Error Code	Short Message	Long Message
10001	Internal Error	The transaction could not be loaded
10004	Invalid argument	You can not specify a partial amount with a full refund
10004	Invalid argument	The Memo field contains invalid characters
10004	Invalid argument	A transaction id is required
10004	Invalid argument	Currency is not supported
10004	Invalid argument	The partial refund amount must be a positive amount
10004	Invalid argument	The partial refund amount is not valid
10009	Transaction refused	You can not refund this type of transaction
10009	Transaction refused	You are over the time limit to perform a refund on this transaction
10009	Transaction refused	Account is restricted
10009	Transaction refused	You do not have a verified ACH
10009	Transaction refused	Account is locked or inactive
10009	Transaction refused	The account for the counterparty is locked or inactive
10009	Transaction refused	You can not do a partial refund on this transaction
10009	Transaction refused	The partial refund must be the same currency as the original transaction
10009	Transaction refused	The partial refund amount is not valid

RefundTransaction API Warnings

TABLE A.9 *RefundTransaction API Warnings*

Error Code	Short Message	Long Message
10004	Invalid argument	The memo field was truncated because it was too long

TransactionSearch API Errors

TABLE A.10 *TransactionSearch API Errors*

Error Code	Short Message	Long Message
10003	Invalid argument	Start date is a required parameter
10003	Invalid argument	Start date is invalid
10003	Invalid argument	End date is invalid
10003	Invalid argument	Currency is not supported
10004	Invalid argument	You can not search for a transaction id and a receipt id
10004	Invalid argument	The transaction id is not valid
10004	Invalid argument	Receipt id is not valid
10004	Invalid argument	Auction item id is not valid
10004	Invalid argument	Receiver email is invalid
10004	Invalid argument	Payer email is invalid
10004	Invalid argument	Receiver can only be specified for payments you've received

TABLE A.10 TransactionSearch API Errors

Error Code	Short Message	Long Message
10007	Permission denied	You do not have permissions to search for this transaction



Country Codes

ISO 3166 Standard Country Codes

PayPal relies on two-character country codes defined by International Standards Organization (ISO) 3166.

TABLE B.1 *ISO 3166 Two-Character Country Codes*

Country	Code
Anguilla	AI
Argentina	AR
Australia	AU
Austria	AT
Belgium	BE
Brazil	BR
Canada	CA
Chile	CL
China	CN
Costa Rica	CR
Cyprus	CY
Czech Republic	CZ
Denmark	DK
Dominican Republic	DO
Ecuador	EC
EE	Estonia
Finland	FI
France	FR
Germany	DE
Greece	GR
Hong Kong	HK

TABLE B.1 ISO 3166 Two-Character Country Codes

Country	Code
Hungary	HU
Iceland	IS
India	IN
Ireland	IE
Israel	IL
Italy	IT
Jamaica	JM
Japan	JP
Latvia	LV
Lithuania	LT
Luxembourg	LU
Malaysia	MY
Malta	MT
Mexico	MX
Netherlands	NL
New Zealand	NZ
Norway	NO
Poland	PL
Portugal	PT
Singapore	SG
Slovakia	SK
Slovenia	SI
South Africa	ZA
South Korea	KR
Spain	ES
Sweden	SE
Switzerland	CH
Taiwan	TW

TABLE B.1 ISO 3166 Two-Character Country Codes

Country	Code
Thailand	TH
Turkey	TR
United Kingdom	GB
United States	US
Uruguay	UY
Venezuela	VE



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