

# PayPal Express Checkout Services

## Using the Simple Order API

May 2017



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# Recent Revisions to This Document

Release	Changes
May 2017	Added <a href="#">"Numbered Elements,"</a> page 41. Updated the description for <code>paypalAuthorizationId</code> in <a href="#">"Request Field Descriptions,"</a> page 42.
August 2016	This revision contains only editorial changes and no technical updates.
January 2016	This revision contains only editorial changes and no technical updates.
December 2015	This revision contains only editorial changes and no technical updates.
October 2015	Added information about integration for the In-Context Express Checkout flow. See <a href="#">"PayPal Express Checkout Flows,"</a> page 13.
June 2015	Added information about In-Context Express Checkout. See <a href="#">"Introduction to PayPal Express Checkout,"</a> page 9, and <a href="#">"Redirection URLs,"</a> page 25.

# About This Guide

## Audience

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This guide is written for application developers who want to use the CyberSource Simple Order API to integrate PayPal Express Checkout into their order management system.

Implementing PayPal Express Checkout services requires software development skills. You must write code that uses API request and reply fields to integrate PayPal Express Checkout services into your existing order management system.

## Purpose

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This guide describes tasks you must complete to integrate PayPal Express services into your existing order management system.

## Conventions

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The following special statements are used in this document:



A *Note* contains helpful suggestions or references to material not contained in this document.



An *Important* statement contains information essential to successfully completing a task or learning a concept.



A *Warning* contains information or instructions, which, if not heeded, can result in a security risk, irreversible loss of data, or significant cost in time or revenue or both.

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The following text conventions are used in this document:

**Table 1 Text Conventions**

Convention	Meaning
<b>boldface</b>	Boldface type indicates API field names in text, API service names in text, and graphical user interface elements that you must act upon.
<i>italic</i>	Italic type indicates book titles and first use of special terms.
Screen text	Monospace type indicates code in examples or possible values for API fields.

## Related Documentation

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- *Getting Started with CyberSource Advanced for the Simple Order API* ([PDF](#) | [HTML](#)) describes how to get started using the Simple Order API.
- The *Reporting Developer Guide* ([PDF](#) | [HTML](#)) describes how to download reports:

Refer to the Support Center for complete CyberSource technical documentation:

[http://www.cybersource.com/support\\_center/support\\_documentation](http://www.cybersource.com/support_center/support_documentation)

## Customer Support

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For support information about any CyberSource service, visit the Support Center:

<http://www.cybersource.com/support>



# Introduction to PayPal Express Checkout

When you use the PayPal Express Checkout services:

- CyberSource handles the interface with PayPal Express Checkout and ensures that the interface is secure. No additional security key management is required on your part.
- You manage your PayPal Express Checkout payments in the CyberSource Business Center as you would other payment types. You can search for the payment, view its details, and apply a credit just as you would with credit card payments.
- You use a single set of CyberSource reports to manage all your types of payments, including your PayPal Express Checkout payments.



**Important**

PayPal Express Checkout is not supported on an iFrame integration.

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Because your customer completes the order on your web site rather than on the PayPal web site, you can:

- Receive real-time notification of successful payments.
- Enable your customers to be directed to your web site's final confirmation page.
- Receive notification from CyberSource that the customer's address has been confirmed and that you are eligible for coverage under the PayPal Seller Protection Policy, if you are enrolled in this PayPal plan. For more information about the features that CyberSource supports, see the Seller Protection Policy information in "[Disputes and Chargebacks](#)," page 21.
- Receive the PayPal order ID, authorization ID, and capture ID from CyberSource.

PayPal requires you to provide two different ways for your customers to access PayPal Express Checkout. These methods are described in the following table.

**Table 2 PayPal Express Checkout Methods**

Method	Description
Shortcut	Place the <b>Checkout with PayPal</b> button on your checkout page.
Payment	Place the <b>PayPal</b> button on your payment page or add PayPal as a choice in your payment drop-down list.

## Terminology

The following table describes the terminology for PayPal Express Checkout.

**Table 3 PayPal Express Checkout Terminology**

Term	Description
Authorization ID	PayPal parameter that identifies an authorization. More than one authorization ID can be associated with an order. Use for a follow-on authorization reversal or capture.
Billing Agreement ID	PayPal parameter that identifies a specific billing agreement between you and your customer. Use to perform a reference transaction or to cancel a billing agreement.
Capture ID	PayPal parameter that identifies a capture. Use for a follow-on full or partial refund.
Honor Period	Amount of time after an authorization during which funds are held and guaranteed available. If the honor period expires, the capture could be declined.
Order ID	Transaction identifier created by PayPal and returned to you through CyberSource as a reply in the third API call. Used by CyberSource to initiate an authorization or re-authorization.
Session Token	Identifier that the CyberSource API passes to you. Use to merge the API calls. Has a lifetime of three hours.

## Prerequisites

Before you process PayPal Express Checkout payments:

- Install a CyberSource client.  
See the information about clients in [Getting Started with CyberSource Advanced for the Simple Order API](#).
- Contact CyberSource Customer Support to configure your CyberSource account.

- If you are using the Simple Order API with XML, make sure you are using the correct API version for the features you are implementing. CyberSource recommends that you use the most recent API version.

For general information about the API versions, see [Getting Started with CyberSource Advanced for the Simple Order API](#). The following table shows which Simple Order API version to use for the PayPal Express Checkout features.

**Table 4 Choosing the Simple Order API Version**

Feature	Simple Order API Version
Standard orders	Version 1.29 or later
Custom orders	Version 1.32 or later
Functionality introduced in May 2008: <ul style="list-style-type: none"> <li>■ Requesting the customer's billing address</li> <li>■ Using the invoice number, error code, and correlation ID fields</li> </ul>	Version 1.36 or later
Billing agreements and reference transactions	Version 1.47 or later
Item-level request fields <p><b>Note</b> To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature.</p>	Version 1.73 or later
Functionality introduced in October 2012: <ul style="list-style-type: none"> <li>■ Item-level reply fields for the Get Details service</li> <li>■ Get Transaction Details service</li> <li>■ Logo image field</li> </ul> <p><b>Note</b> Contact CyberSource Customer Support to have your account configured for these features.</p>	Version 1.77 or later

- Set up your PayPal account.  
When you open your PayPal business account, PayPal assigns you a PayPal account manager who helps you configure your PayPal account.

### To set up your PayPal account:

- Step 1** Log in to <https://developer.paypal.com> using your master Sandbox developer account. To make testing easier, check the **Log me in automatically** box. This option makes it quicker for you to approve the test payments you process through the CyberSource and PayPal test environments.
- Step 2** Click **Accounts** in the left pane to view your Sandbox Business and Buyer accounts.

**Step 3** Set up or select an account.

- To test PayPal Express Checkout transactions, you need to set up a personal test account and a business test account.
- If you need to set up Business seller accounts from which to run test transactions, do so here.
- If you already set up an account, select the Business or Premier account that you will use as your seller account, which is the account you set up with CyberSource as your PayPal merchant ID for receiving payments through CyberSource.

**Step 4** Navigate to <https://www.sandbox.paypal.com/signin/> in a new browser tab. The PayPal web site displays a new window.

**Step 5** In the new window, log in using your Sandbox seller account credentials.

**Step 6** Choose the **My Account** tab and click **Profile**. The **Profile Summary** page is displayed.

**Step 7** Click **My selling tools** in the left pane.

**Step 8** In the **Selling online** section, click the **Update** link under **API access**.

**Step 9** Click **Add or Edit API Permissions** link under **Pre-built Payment Solution**.

**Step 10** Click **Add New Third Party** button on the **Manage Third Party Access** page.

**Step 11** For testing, enter **cybersource\_paypal\_api1.cybersource.com**, which is the CyberSource API account username.  
For live transactions, enter **paypal\_cybersource\_api1.cybersource.com**.

**Step 12** Click **Lookup**.

**Step 13** Check the following permissions:

- Use Express Checkout to process payments.
- Issue a refund for a specific transaction.
- Authorize and capture your PayPal transactions.
- Obtain information about a single transaction.
- Search your transactions for items that match specific criteria and display the results.
- Charge an existing customer based on a prior transaction.
- Create and manage Recurring Payments.
- Obtain authorization for pre-approved payments and initiate pre-approved transactions.

If you are going to use reference transactions, contact your PayPal representative to enable billing agreements and reference transactions.

**Step 14** Click **Add**.

- Step 15** To edit or view permissions, click the **Edit Third Party** button on the **Manage Third Party Access** page.
- Step 16** You must provide the username of your Seller test account to CyberSource Customer Support to enable your account for Express Checkout.
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## PayPal Express Checkout Flows

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PayPal offers two Express Checkout customer experience flows.

- Traditional Express Checkout
- In-Context Express Checkout

### Traditional Express Checkout Flow

When your customer is ready to pay for the products selected from your web site:

- 1 The customer clicks **Checkout with PayPal** on your checkout page or clicks **PayPal** on your payment page.
- 2 Your web site redirects the customer's browser to the PayPal web site.
- 3 The customer logs in and selects a payment method and shipping address.
- 4 PayPal redirects the customer's browser to your web site so that the customer can complete the purchase.

The redirection URL controls the customer experience. For more information, see ["Redirection URLs," page 25](#).

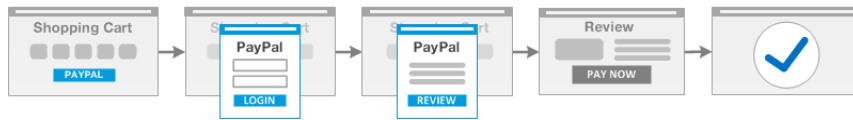
### In-Context Express Checkout Flow

When your customer is ready to pay for the products selected from your web site:

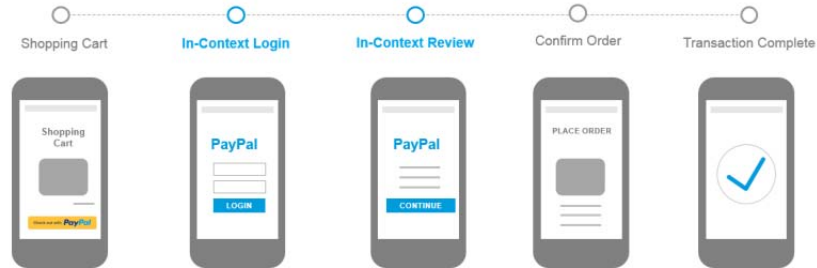
- 1 The customer clicks **Checkout with PayPal** on your checkout page or clicks **PayPal** on your payment page.
- 2 Your web site remains in view while a PayPal window appears.

**3** The customer logs in and selects a payment method and shipping address.

- In-context web flow:



- In-context mobile flow:



**4** PayPal redirects the customer's browser to your web site so that the customer can complete the purchase.

For In-Context Express Checkout, follow the instructions:

- For basic integration, see: <https://developer.paypal.com/docs/classic/express-checkout/in-context/integration/#basic-integration>.
- For advanced settings, see: <https://developer.paypal.com/docs/classic/express-checkout/in-context/integration/#advanced-settings>.

The redirection URL controls the customer experience flow. For more information, see "Redirection URLs," page 25.

## PayPal Express Checkout Orders

**Table 5** Types of PayPal Express Checkout Orders

Group	Type of Order
Standard Orders	Regular Order
	Sale
Custom Orders	Immediate Partial Sale
	Delayed Authorization
	Delayed Capture
Billing Agreements	Billing Agreement with Payment
	Billing Agreement without Payment
	Reference Transaction

### Standard Orders



**Note**

CyberSource recommends that you use custom orders instead of standard orders because custom orders:

- Allow more flexibility with respect to partial shipments and back orders by allowing multiple authorizations and captures for each order.
- Allow for more detailed control of Order Setup and Authorization processing.

See "[Custom Orders](#)," page 16.

A PayPal Express Checkout standard order enables you to obtain an authorization (without needing to explicitly call for an authorization) and to perform captures, each for a partial amount of the authorization. Use a standard order if your company meets one or more of the following criteria:

- You do not usually run out of products sold.
- You do not usually have back orders.
- You do not accept advanced orders.

A PayPal Express Checkout standard order consists of three API calls, the last of which contains an implicit authorization, and a fourth API call for an explicit capture. The authorization confirms that the funds are available. The capture transfers the funds from the customer's account to your account.

To authorize a standard order, call these three services:

- 1 Set
- 2 Get Details
- 3 Do Payment

There are two ways to perform the capture:

- For a regular order, call the Do Capture service separately after calling the three authorization services.
- For a sale, call the Do Capture service at the same time as the Do Payment service.

The following table lists the service calls for a standard order.

**Table 6 Service Calls for a Standard Order**

For a Regular Order	For a Sale
1 Set	1 Set
2 Get Details	2 Get Details
3 Do Payment	3 Do Payment & Do Capture
4 Do Capture	

## Custom Orders

A PayPal Express Checkout custom order enables you to perform multiple authorizations and multiple captures for each of the separate authorizations. Use a custom order if your company meets one or more of the following criteria:

- You usually have split shipments.
- You accept advanced orders for products that are not available now but will be available in the next 364 days.
- You usually have back orders for which the customer needs to wait longer than a week.
- You usually perform bank card reauthorizations.

A PayPal Express Checkout custom order consists of three parts:

- 1 Order setup records the fact that the customer has authorized you to debit their account for a defined amount of money, which is up to 115% of the order amount.
- 2 Authorization confirms that the funds are available.
- 3 Capture transfers the funds from the customer's account to your account.



All three types of custom orders start with a call to the Set service followed by a call to the Get Details service. The remaining calls are different for each type of custom order. You can combine the different types of custom orders presented here when you create your custom order:

- For an immediate partial sale, call the Order Setup, Authorization, and Do Capture services in the same request.
- For a delayed authorization, call the Order Setup service. Then call the Authorization service one or more times (up to the total amount of the order), and then call the Do Capture service for each authorization.
- For a delayed capture, call the Order Setup service. Then call the Authorization service, and then call the Do Capture service multiple times for the authorization. You can make additional calls to the Authorization service, and then call the Do Capture service multiple times for each authorization.

The following table lists the service calls for each type of custom order. The steps shown for an immediate partial sale are listed exactly as they should be completed. The steps shown for the delayed authorization and delayed capture are examples of the calls you can make. [Table 8, "Service Call Examples for Custom Orders," on page 18](#) provides examples of a Delayed Authorization and a Delayed Capture.

**Table 7 Service Calls for a Custom Order**

<b>For an Immediate Partial Sale</b>	<b>For a Delayed Authorization</b>	<b>For a Delayed Capture</b>
1 Set	1 Set	1 Set
2 Get Details	2 Get Details	2 Get Details
3 Order Setup, Authorization, & Do Capture	3 Order Setup	3 Order Setup
	4 Authorization	4 Authorization
	5 Do Capture	5 Do Capture
	6 Authorization	6 Do Capture
	7 Do Capture	7 Authorization
		8 Do Capture
		9 Do Capture

**Table 8 Service Call Examples for Custom Orders**

<b>For a Delayed Authorization</b>	<b>For a Delayed Capture</b>
1 Set	1 Set
2 Get Details	2 Get Details
3 Order Setup for \$1000	3 Order Setup for \$1000
4 Authorization for \$700	4 Authorization for \$700
5 Do Capture for \$700	5 Do Capture for \$200
6 Authorization for \$300	6 Do Capture for \$500
7 Do Capture for \$300	7 Authorization for \$300
	8 Do Capture for \$150
	9 Do Capture for \$150

## Billing Agreements

A PayPal Express Checkout billing agreement enables you to use a billing agreement ID for future billing without requiring your customer to specifically authorize each future payment. After you create a billing agreement, when you send a request to bill the customer for a specified amount, you use the billing agreement to process the PayPal Express Checkout order.

If you are adding this functionality to an existing PayPal Express Checkout implementation, contact your PayPal representative to enable billing agreements and reference transactions.

Use one of the following scenarios to create a billing agreement:

- For a billing agreement with payment, perform a standard order as described in "[Standard Orders](#)," [page 15](#), but include the billing agreement fields in your service requests. This scenario performs a PayPal Express Checkout payment and creates a billing agreement at the same time.
- For a billing agreement without payment, call the Set, Get Details, and Create Agreement services to create a billing agreement while performing a PayPal Express Checkout payment for USD 0.00.

After you create a billing agreement, perform a PayPal Express Checkout payment by using the Reference Transaction scenario: call the Do Reference Transaction,

Authorization, and Do Capture services. The following table lists the service calls for the billing agreement scenarios.

**Table 9 Service Calls for Billing Agreement Scenarios**

For a Billing Agreement with Payment	For a Billing Agreement without Payment	For a Reference Transaction
1 Set	1 Set (for \$0)	1 Do Reference Transaction
2 Get Details	2 Get Details	2 Authorization
3 Do Payment	3 Create Agreement	3 Do Capture
4 Do Capture		

## Additional PayPal Express Checkout Services

You can perform the services and functions described in the following table.

**Table 10 Additional PayPal Express Checkout Services**

Service or Function	Description
Reversal	<p>The Reversal service reverses an authorization or an order setup:</p> <ul style="list-style-type: none"> <li>■ For a regular order, sale, or immediate partial sale, simply call the Reversal service.</li> <li>■ For a delayed authorization or delayed capture, you can reverse an authorization or an order setup.</li> </ul> <p>If you performed multiple authorizations and want to reverse one of them, you must specify which authorization to reverse by referencing the authorization ID.</p> <p>After a capture has been made against an authorization, reversing the authorization has no effect on the capture.</p>
Full or partial refund	<p>The Refund service provides a credit to a customer. You can perform multiple partial refunds for each capture:</p> <ul style="list-style-type: none"> <li>■ For a regular order, sale, or immediate partial sale, simply call the Refund service.</li> <li>■ For a delayed authorization or delayed capture, you need to specify which capture to credit.</li> </ul>
Reauthorization	<p>To reauthorize a transaction:</p> <ol style="list-style-type: none"> <li>1 Reverse the authorization.</li> <li>2 Perform a new authorization using the order ID.</li> </ol>

**Table 10 Additional PayPal Express Checkout Services (Continued)**

Service or Function	Description
Cancellation	The Update Agreement service cancels a billing agreement ID, thus cancelling the billing agreement. Use this service when a customer notifies you that they no longer want you to bill their PayPal account.  <b>Note</b> When you call the Update Agreement service, CyberSource cancels the billing agreement by calling the PayPal Update Agreement service with a status of <i>cancelled</i> .
Transaction Search	The Transaction Search service returns information about one or more transactions, as identified by a value associated with the transaction, such as customer email address, date of transaction, amount, transaction status, or invoice number.
Get Transaction Details	The Get Transaction Details service returns information about a transaction, as identified by a transaction identifier that was created by PayPal.

## Information About Your Transactions

The following table describes the methods you can use to obtain information about your PayPal Express Checkout transactions.

**Table 11 Methods of Obtaining Information About Your Transactions**

Method	Description
PayPal Express Checkout services	The Transaction Search and Get Transaction Details services return information about a transaction. See " <a href="#">Transaction Search Service</a> ," <a href="#">page 37</a> , and " <a href="#">Get Transaction Details Service</a> ," <a href="#">page 38</a> .
Reply messages	After you send a request message for a PayPal Express Checkout service, CyberSource responds with a reply message that contains information about the status of your request, including errors and exceptions.
Reports	Use the Business Center to view and download reports. The following daily CyberSource reports include information about your PayPal Express Checkout transactions: <ul style="list-style-type: none"> <li>■ Payment Batch Detail Report</li> <li>■ Payment Batch Summary Report</li> <li>■ Payment Submission Detail Report</li> </ul> <p>The Payment Batch Detail Report and Payment Submission Detail Report are described in the <a href="#">Reporting Developer Guide</a>. General information about the reports are available in the online help for the Business Center. If you are already subscribed to these reports, then you will automatically start to see PayPal Express Checkout transactions in the reports. If you are a new user of these reports, you can subscribe to the reports in the Business Center.</p>

**Table 11 Methods of Obtaining Information About Your Transactions (Continued)**

Method	Description
Transaction details	You can view the details of your PayPal Express Checkout transactions in the Business Center just as you can for other payment types. You can search for transactions by date, application type, consumer name, and other transaction identifiers.

## Disputes and Chargebacks

The following table describes the PayPal Express Checkout services related to disputes and chargebacks.

**Table 12 Services for Disputes and Chargebacks**

Service	Description
Chargeback dispute rights	If your customers choose a credit card as the funding source for the PayPal Express Checkout payment, they have the normal chargeback dispute rights. If your customers dispute a charge, PayPal Express Checkout performs the initial chargeback processing and contacts you for documentation.
Buyer complaint process	PayPal Express Checkout offers a Buyer Complaint Process that is applicable to all purchases regardless of the funding source. When a customer files a complaint, PayPal investigates and contacts you for documentation. See <a href="http://www.paypal.com/cgi-bin/webscr?cmd=p/gen/buyer-complaint-outside">http://www.paypal.com/cgi-bin/webscr?cmd=p/gen/buyer-complaint-outside</a> .
Seller Protection Policy	CyberSource supports the following Seller Protection Policy levels: <ul style="list-style-type: none"> <li>■ Eligible: you are protected for unauthorized payments and items not received.</li> <li>■ Partially eligible: you are protected for items not received.</li> <li>■ Ineligible: you are not protected.</li> </ul> PayPal offers additional features that are not currently supported by CyberSource. See <a href="https://www.paypal.com/cgi-bin/webscr?cmd=xpt/cps/securitycenter/sell/SellerPPOverview-outside">https://www.paypal.com/cgi-bin/webscr?cmd=xpt/cps/securitycenter/sell/SellerPPOverview-outside</a> .

## Order Tracking

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For general information about order tracking, see [Getting Started with CyberSource Advanced for the Simple Order API](#).

## Reconciliation IDs and Transaction Reference Numbers

Reconciliation IDs and transaction reference numbers are not supported for PayPal Express Checkout.

## Request IDs

For PayPal Express Checkout, all services are follow-on services except:

- The first call to the Set service
- Calls to the Cancellation (Update Agreement) service
- Calls to the Do Reference Transaction service

## Request IDs in Reply Messages

For all PayPal Express Checkout services, the request ID is returned in the reply message in **requestID**.

## Request IDs in Request Messages

The following table lists the field names for the PayPal Express Checkout request IDs in request messages.

**Table 13 Request IDs in Request Messages**

Service	Field Names
Set	payPalEcSetService_paypalEcSetRequestID
Get Details	payPalEcGetDetailsService_paypalEcSetRequestID
Do Payment	payPalEcDoPaymentService_paypalEcSetRequestID
Do Capture	For a standard order: payPalDoCaptureService_paypalEcDoPaymentRequestID  For a custom order: payPalDoCaptureService_paypalAuthorizationRequestID
Order Setup	payPalEcOrderSetupService_paypalEcSetRequestID

**Table 13 Request IDs in Request Messages (Continued)**

<b>Service</b>	<b>Field Names</b>
Authorization	For a custom order: payPalAuthorizationService_paypalEcOrderSetupRequestID  For a billing agreement: payPalAuthorizationService_paypalDoRefTransactionRequestID
Create Agreement	payPalCreateAgreementService_paypalEcSetRequestID
Authorization Reversal	For a standard order: payPalAuthReversalService_paypalEcDoPaymentRequestID  For a custom order when reversing an order setup: payPalAuthReversalService_paypalEcOrderSetupRequestID  For a custom order when reversing an authorization: payPalAuthReversalService_paypalAuthorizationRequestID
Refund	payPalRefundService_paypalDoCaptureRequestID

# Requesting Services

**Table 14 Request Services**

<b>Group</b>	<b>General Service Name</b>	<b>Simple Order API Service Name</b>
Standard Orders	<a href="#">Set Service</a>	payPalEcSetService
	<a href="#">Get Details Service</a>	payPalEcGetDetailsService
	<a href="#">Payment Service</a>	payPalEcDoPaymentService
	<a href="#">Capture Service</a>	payPalDoCaptureService
	<a href="#">Sale Service</a>	Multiple services
Custom Orders	<a href="#">Set Service</a>	payPalEcSetService
	<a href="#">Get Details Service</a>	payPalEcGetDetailsService
	<a href="#">Order Setup Service</a>	payPalEcOrderSetupService
	<a href="#">Authorization Service</a>	payPalAuthorizationService
	<a href="#">Capture Service</a>	payPalDoCaptureService
Billing Agreements	<a href="#">Set Service</a>	payPalEcSetService
	<a href="#">Get Details Service</a>	payPalEcGetDetailsService
	<a href="#">Payment Service</a>	payPalEcDoPaymentService
	<a href="#">Capture Service</a>	payPalDoCaptureService
	<a href="#">Create Agreement Service</a>	payPalCreateAgreementService
	<a href="#">Reference Transaction Service</a>	payPalDoRefTransactionService
	<a href="#">Authorization Service</a>	payPalAuthorizationService
Additional Services	<a href="#">Authorization Reversal Service</a>	payPalAuthReversalService
	<a href="#">Refund Service</a>	payPalRefundService
	<a href="#">Reauthorization Service</a>	Multiple services
	<a href="#">Cancellation Service</a>	payPalUpdateAgreementService
	<a href="#">Transaction Search Service</a>	payPalTransactionSearchService
	<a href="#">Get Transaction Details Service</a>	payPalGetTxnDetailsService



## Set Service

---

The **payPalEcSetService** service:

- Alerts PayPal that an order is going to occur.
- Returns the PayPal token which is the token that identifies this session.

After **payPalEcSetService** returns, you must redirect your customer's browser to the PayPal web site.

## Redirection URLs

PayPal has a specific URL for each of the two Express Checkout customer experience flows.

### Traditional Express Checkout Redirection URL

For Traditional Express Checkout, use the following URL and append the value of the PayPal token:

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

Therefore, if the PayPal token is EC-4WL17777V4111184H, you will redirect this customer's browser to:

```
https://www.paypal.com/cgi-bin/webscr?cmd=_express-checkout&token=EC-4WL17777V4111184H
```

For more information on Traditional Express Checkout, see "[Traditional Express Checkout Flow](#)," page 13.

### In-Context Express Checkout Redirection URL

For In-Context Express Checkout, use the following URL and append the value of the PayPal token:

```
https://www.paypal.com/checkoutnow?&useraction=commit&token=
```

Therefore, if the PayPal Token is EC-4WL17777V4111184H, you will redirect this customer's browser to:

```
https://www.paypal.com/checkoutnow?&useraction=commit&token=EC-4WL17777V4111184H
```

For more information on In-Context Express Checkout, see "[In-Context Express Checkout Flow](#)," page 13.

At the PayPal site, the customer can review and either approve or cancel the transaction. If the customer approves the transaction, the customer is redirected to the return URL in the field **paypalEcSetServicePaypalReturn**. If the customer cancels the transaction, the customer is redirected to the return URL in the field **paypalEcSetServicePaypalCancelReturn**.

**Note**

The PayPal Sandbox URL for confirming CAS/Sandbox payments is:

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

As with the production URL, you need to append your PayPal token to the end of the URL.

## Multiple Calls to the Set Service

If, after the first call to **paypalEcSetService**, the customer realizes the shipping address is incorrect, you can let the customer enter a different shipping address and then you can call **paypalEcSetService** again as a follow-on service.

**Important**

If you are using CyberSource Decision Manager, do not allow customers to change their shipping addresses in the PayPal portion of the session.

**Note**

After each call to **paypalEcSetService**, you must redirect the customer's browser to the PayPal web page, appending the PayPal token to the URL listed above.

## Required Fields

When you request **paypalEcSetService**, you must include the following fields in the request:

- `paypalEcSetService_run`
- `paypalEcSetService_paypalReturn`
- `paypalEcSetService_paypalCancelReturn`
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`

- purchaseTotals\_grandTotalAmount or at least one **item\_#\_unitPrice** field

**Note**

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38.](#)

For calls to **paypalEcSetService** after the first call, the following fields are also required:

- paypalEcSetService\_paypalEcSetRequestID
- paypalEcSetService\_paypalEcSetRequestToken

For calls to **paypalEcSetService** that initiate the creation of a billing agreement, include the following fields:

- paypalEcSetService\_paypalBillingType (required)
- paypalEcSetService\_paypalBillingAgreementDesc (optional)
- paypalEcSetService\_paypalBillingAgreementCustom (optional)
- paypalEcSetService\_paypalPaymentType (optional)

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40.](#)

## Get Details Service

---

**Note**

**paypalEcGetDetailsService** returns critical information necessary for order processing. It is much easier to obtain this critical information through the API rather than through an alternate method. Therefore, you must call **paypalEcGetDetailsService** even if you do not allow customers to change their shipping addresses.

The **paypalEcGetDetailsService** service:

- Returns information about a customer.
- Returns the billing agreement status if you initiated the creation of a billing agreement.

When calling **paypalEcGetDetailsService**, you can request the customer's billing address. When you do this, CyberSource returns the following fields in the reply message:

- paypalEcGetDetailsReply\_street1
- paypalEcGetDetailsReply\_street2
- paypalEcGetDetailsReply\_city
- paypalEcGetDetailsReply\_state
- paypalEcGetDetailsReply\_postalCode
- paypalEcGetDetailsReply\_countryCode

- `paypalEcGetDetailsReply_countryName`
- `paypalEcGetDetailsReply_addressID`

To receive these values, do the following:

- Contact your PayPal account manager to have this feature enabled on your PayPal account.
- Contact CyberSource Customer Support to have your CyberSource account configured to request the billing address.
- Set `paypalEcSetService_requestBillingAddress` to 1 in your request for `paypalEcSetService`.

If you included item-level fields in your request for the `paypalEcSetService` service, `paypalEcGetDetailsService` returns item-level fields in the reply message. These fields are described in ["Reply Field Descriptions," page 61](#).



To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38](#).

---

When you request `paypalEcGetDetailsService`, you must include the following fields in the request:

- `paypalEcGetDetailsService_run`
- `paypalEcGetDetailsService_paypalToken`
- `paypalEcGetDetailsService_paypalEcSetRequestID`
- `paypalEcGetDetailsService_paypalEcSetRequestToken`
- `merchantID`
- `merchantReferenceCode`

These fields are described in [Appendix A, "API Fields," on page 40](#).

## Payment Service

---



`paypalEcDoPaymentService` is used only for standard orders.

---

The `paypalEcDoPaymentService` service:

- Obtains the authorization implicitly.
- Returns an order ID and an authorization ID.

- Returns a billing agreement ID if a billing agreement was created.

The Payment service sets an authorization as an embedded payment action parameter in the third API call. When you use the Payment service, the authorization typically commits funds for three business days. Contact PayPal to find out how to negotiate an honor interval that is longer than three days. You can try to capture the authorization for a period of 29 days after the authorization. If funds are still available, then the capture will be successful.

When you request **paypalEcDoPaymentService**, you must include the following fields in the request:

- paypalEcDoPaymentService\_run
- paypalEcDoPaymentService\_paypalToken
- paypalEcDoPaymentService\_paypalPayerId
- paypalEcDoPaymentService\_paypalEcSetRequestID
- paypalEcDoPaymentService\_paypalEcSetRequestToken
- paypalEcDoPaymentService\_paypalCustomerEmail
- merchantID
- merchantReferenceCode
- purchaseTotals\_currency
- purchaseTotals\_grandTotalAmount or at least one **item\_#\_unitPrice** field



**Note**

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38](#).

---

When Decision Manager is enabled, you must also submit the following fields in the request:

- billTo\_city
- billTo\_country
- billTo\_postalCode—required only when billTo\_country is set to US or CA.
- billTo\_state—required only when billTo\_country is set to US or CA.
- billTo\_street1

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Order Setup Service

---



### Note

**paypalEcOrderSetupService** is used only for custom orders.

The **paypalEcOrderSetupService** service:

- Sets up an order in anticipation of one or more authorizations.
- Returns a transaction ID.

When you request **paypalEcOrderSetupService**, you must include the following fields in the request:

- paypalEcOrderSetupService\_run
- paypalEcOrderSetupService\_paypalToken
- paypalEcOrderSetupService\_paypalPayerId
- paypalEcOrderSetupService\_paypalEcSetRequestId
- paypalEcOrderSetupService\_paypalEcSetRequestToken
- paypalEcOrderSetupService\_paypalCustomerEmail
- merchantID
- merchantReferenceCode
- purchaseTotals\_currency
- purchaseTotals\_grandTotalAmount or at least one **item\_#\_unitPrice** field



### Note

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38](#).

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Authorization Service

---

The **paypalAuthorizationService** service:

- Obtains the authorization.
- Enables you to perform multiple partial authorizations.

When you use the Authorization service, the authorization typically commits funds for three business days. Contact PayPal to find out how to negotiate an honor interval that is longer than three days. You can try to capture the authorization for a period of 29 days after the authorization. If funds are still available, then the capture will be successful.

When you request **paypalAuthorizationService**, you must include the following fields in the request:

- paypalAuthorizationService\_run
- paypalAuthorizationService\_paypalOrderId
- paypalAuthorizationService\_paypalCustomerEmail
- billTo\_email
- merchantID
- merchantReferenceCode
- purchaseTotals\_currency
- purchaseTotals\_grandTotalAmount
- A request ID:
  - For a custom order:  
paypalAuthorizationService\_paypalEcOrderSetupRequestID
  - For a billing agreement:  
paypalAuthorizationService\_paypalDoRefTransactionRequestID
- A request token:
  - For a custom order:  
paypalAuthorizationService\_paypalEcOrderSetupRequestToken
  - For a billing agreement:  
paypalAuthorizationService\_paypalDoRefTransactionRequestToken

When Decision Manager is enabled, you must also submit the following fields in the request:

- billTo\_city
- billTo\_country
- billTo\_postalCode—required only when billTo\_country is set to US or CA.
- billTo\_state—required only when billTo\_country is set to US or CA.
- billTo\_street1

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Capture Service

---



### Note

A capture transfers the funds from the customer's account to your account.

The **paypalDoCaptureService** service:

- Enables you to capture all of the authorized amount.
- Enables you to perform multiple partial captures, which are also called *split shipments*, up to 115% of the authorized amount.

When you request **paypalDoCaptureService**, you must include the following fields in the request:

- `paypalDoCaptureService_run`
- `paypalDoCaptureService_completeType`—This flag indicates whether it is a full capture or a partial capture.
- `paypalDoCaptureService_paypalAuthorizationId`
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `purchaseTotals_grandTotalAmount`
- A request ID:
  - For a standard order: `paypalDoCaptureService_paypalEcDoPaymentRequestID`
  - For a custom order: `paypalDoCaptureService_paypalAuthorizationRequestID`
- A request token:
  - For a standard order: `paypalDoCaptureService_paypalEcDoPaymentRequestToken`
  - For a custom order: `paypalDoCaptureService_paypalAuthorizationRequestToken`

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Sale Service

---

A sale consists of calling **paypalEcDoPaymentService** and **paypalDoCaptureService** in the same request. The sale:

- Obtains the authorization.
- Captures all of the authorized amount.
- Returns a transaction ID.



When you request **paypalEcDoPaymentService** and **paypalDoCaptureService** in the same request, you must include the following fields in the request:

- `paypalEcDoPaymentService_run`
- `paypalEcDoPaymentService_paypalCustomerEmail`
- `paypalEcDoPaymentService_paypalEcSetRequestID`
- `paypalEcDoPaymentService_paypalEcSetRequestToken`
- `paypalEcDoPaymentService_paypalPayerId`
- `paypalEcDoPaymentService_paypalToken`
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_grandTotalAmount` or at least one **item\_#\_unitPrice** field



**Note**

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38](#).

- `paypalDoCaptureService_run`
- `paypalDoCaptureService_completeType`
- `purchaseTotals_currency`

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Create Agreement Service

The **paypalCreateAgreementService** service:

- Creates a billing agreement.
- Returns a billing agreement ID.

Before calling **paypalCreateAgreementService**:

- You must call **paypalEcSetService** for the amount of \$0.
- The billing agreement status returned by the **paypalEcGetDetailsService** service must indicate that the customer accepted the billing agreement.

When you request **paypalCreateAgreementService**, you must include the following fields in the request:

- `paypalCreateAgreementService_run`
- `paypalCreateAgreementService_paypalToken`
- `paypalCreateAgreementService_paypalEcSetRequestID`
- `paypalCreateAgreementService_paypalEcSetRequestToken`

- merchantID
- merchantReferenceCode

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Reference Transaction Service

---

The **paypalDoRefTransactionService** service uses a billing agreement to process a payment.

When you request **paypalDoRefTransactionService**, you must include the following fields in the request:

- merchantID
- merchantReferenceCode
- purchaseTotals\_grandTotalAmount or at least one **item\_#\_unitPrice** field



### Note

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature. For important information about items and subtotals, see ["Requirements for the Subtotal," page 38](#).

- purchaseTotals\_currency
- paypalDoRefTransactionService\_run
- paypalDoRefTransactionService\_paypalBillingAgreementId
- paypalDoRefTransactionService\_paypalPaymentType

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Authorization Reversal Service

---



### Note

After a capture has been made against an authorization, reversing the authorization has no effect on the capture.

The **paypalAuthReversalService** service releases the hold on a customer's funds. The following services can be reversed:

- paypalEcDoPaymentService
- paypalEcOrderSetupService
- paypalAuthorizationService

When you request **paypalAuthReversalService**, you must include the following fields in the request:

- paypalAuthReversalService\_run
- paypalAuthReversalService\_paypalAuthorizationId
- merchantID
- merchantReferenceCode
- A request ID:
  - For a standard order:  
paypalAuthReversalService\_paypalEcDoPaymentRequestID
  - For a custom order when reversing an order setup:  
paypalAuthReversalService\_paypalEcOrderSetupRequestID
  - For a custom order when reversing an authorization:  
paypalAuthReversalService\_paypalAuthorizationRequestID
- A request token:
  - For a standard order:  
paypalAuthReversalService\_paypalEcDoPaymentRequestToken
  - For a custom order when reversing an order setup:  
paypalAuthReversalService\_paypalEcOrderSetupRequestToken
  - For a custom order when reversing an authorization:  
paypalAuthReversalService\_paypalAuthorizationRequestToken

These fields are described in [Appendix A, "API Fields," on page 40](#).

## Refund Service

---

The **paypalRefundService** service:

- Enables you to perform a full refund for an order.
- Enables you to perform multiple partial refunds for an order.

When you request **paypalRefundService**, you must include the following fields in the request:

- paypalRefundService\_run
- paypalRefundService\_paypalCaptureId—This value determines which capture will be refunded.
- paypalRefundService\_paypalDoCaptureRequestID—This value determines which capture will be refunded.
- paypalRefundService\_paypalDoCaptureRequestToken
- merchantID
- merchantReferenceCode

- `purchaseTotals_grandTotalAmount`—The amount of the refund determines if it is a full refund or a partial refund.

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Reauthorization Service

---

A reauthorization extends the honor period for an authorization. This is useful when an authorization is about to expire.

### Performing a Reauthorization

---

- Step 1** Call `paypalAuthReversalService`.
  - Step 2** Call `paypalEcDoPaymentService` for a standard order or call the `paypalAuthorizationService` for a custom order.
- 

## Cancellation Service

---

The `paypalUpdateAgreementService` service cancels a billing agreement.

When you request `paypalUpdateAgreementService`, you must include the following fields in the request:

- `paypalUpdateAgreementService_run`
- `paypalUpdateAgreementService_paypalBillingAgreementId`
- `paypalUpdateAgreementService_paypalBillingAgreementStatus`
- `merchantID`
- `merchantReferenceCode`

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 40](#).

## Transaction Search Service

Before requesting this service, you must:

- Contact CyberSource Customer Support to have your account configured for this service.
- Enable your PayPal account for this service. See [Step 13](#) in the procedure for setting up a PayPal account, [page 11](#).

The **paypalTransactionSearchService** service:

- Searches for transactions according to the search criteria in the request message.
- Returns information about the transactions that were found, up to a maximum of 100 transactions.

When you request **paypalTransactionSearchService**, you must include the following fields in the request:

- `paypalTransactionSearchService_run`
- `merchantID`
- `merchantReferenceCode`
- `paypalTransactionSearchService_startDate`
- Fields for one or more of the search criteria in the following table:

**Table 15 Transaction Search Criteria**

Criteria	Field Name
Customer's email address	<code>paypalTransactionSearchService_paypalCustomerEmail</code>
Customer's name: salutation	<code>paypalTransactionSearchService_payerSalutation</code>
Customer's name: first name	<code>paypalTransactionSearchService_payerFirstname</code>
Customer's name: middle name	<code>paypalTransactionSearchService_payerMiddlename</code>
Customer's name: last name	<code>paypalTransactionSearchService_payerLastname</code>
Customer's name: suffix	<code>paypalTransactionSearchService_payerSuffix</code>
Date range	<code>paypalTransactionSearchService_endDate</code> The start date is specified in <b><code>paypalTransactionSearchService_startDate</code></b> , which is a required field for this service.
Invoice number	<code>paypalTransactionSearchService_invoiceNumber</code>
Payment status	<code>paypalTransactionSearchService_paymentStatus</code>
Receipt ID	<code>paypalTransactionSearchService_paypalReceiptId</code>
Transaction amount	<code>paypalTransactionSearchService_grandTotalAmount</code>
Transaction currency	<code>paypalTransactionSearchService_currency</code>
Transaction ID	<code>paypalTransactionSearchService_transactionID</code>

These fields are described in [Appendix A, "API Fields," on page 40](#).

## Get Transaction Details Service

---

Before requesting this service, you must:

- Contact CyberSource Customer Support to have your account configured for this service.
- Enable your PayPal account for this service. See [Step 13](#) in the procedure for setting up a PayPal account, [page 11](#).

The **paypalGetTxnDetailsService** service returns information about a transaction. When you request **paypalGetTxnDetailsService**, you must include the transaction ID that was returned by one of these services:

- `paypalEcDoPaymentService`
- `paypalEcOrderSetupService`
- `paypalAuthorizationService`
- `paypalDoCaptureService`
- `paypalRefundService`
- `paypalDoRefTransactionService`

When you request **paypalGetTxnDetailsService**, you must include the following fields in the request:

- `paypalGetTxnDetailsService_run`
- `paypalGetTxnDetailsService_transactionID`
- `merchantID`
- `merchantReferenceCode`

These are described in [Appendix A, "API Fields," on page 40](#).

## Requirements for the Subtotal

---

A subtotal is the total amount for the products before taxes and shipping and handling charges are added. The subtotal for a transaction must be greater than zero. If the subtotal is less than or equal to zero, PayPal declines the transaction.

To calculate the subtotal, PayPal does the following:

- 1 Identifies the items for which the product code is not `handling_only`, `shipping_and_handling`, or `shipping_only`.

- 2 Multiplies quantity \* unit price for each item identified in step 1.
- 3 Adds the values that were calculated in step 2.

### Example 1 Items That Cause PayPal to Decline a Transaction (NVP)

---

```

item_0_unitPrice=10.00
item_0_quantity=1
item_0_productCode=Beverages
item_0_productName=Fancy Cola
item_0_productSKU=B4859
item_0_taxAmount=10
item_0_productDescription=Description for Fancy Cola!
item_1_unitPrice=5.00
item_1_productCode=shipping_only
item_2_unitPrice=10.00
item_2_quantity=1
item_2_productCode=coupon
item_2_productName=Discount
item_2_productSKU=D1000
item_2_productDescription=1000th customer discount

```

---

### Example 2 Items That Cause PayPal to Decline a Transaction (XML)

---

```

<item id="0">
  <unitPrice>10.00</unitPrice>
  <quantity>1</quantity>
  <productCode>Beverages</productCode>
  <productName>Fancy Cola</productName>
  <productSKU>B4859</productSKU>
  <taxAmount>10</taxAmount>
  <productDescription>Description for Fancy Cola!</productDescription>
</item>
<item id="1">
  <unitPrice>5.00</unitPrice>
  <productCode>shipping_only</productCode>
</item>
<item id="2">
  <unitPrice>10.00</unitPrice>
  <quantity>1</quantity>
  <productCode>coupon</productCode>
  <productName>Discount</productName>
  <productSKU>D1000</productSKU>
  <productDescription>1000th customer discount!</productDescription>
</item>

```

---

# API Fields

## Formatting Restrictions

---

Unless otherwise noted, all of the field names listed are case sensitive, and the fields accept special characters such as @, #, and %.

The values of the **item\_#\_** fields must not contain carets (^) or colons (:), because these characters are reserved for use by the ICS services. The values of all request fields must not contain newlines or carriage returns. However, they can contain embedded spaces and any other printable characters. All leading and trailing spaces are removed.

## Data Type Definitions

---

For more information about these data types, see the [World Wide Web Consortium \(W3C\) XML Schema Part 2: Datatypes Second Edition](#).

Data Type	Description
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters



## Numbered Elements

---

The CyberSource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, if a customer order includes more than one item, you need to include multiple `<item>` elements in your request. Each item is numbered, starting with 0. The XML schema uses an `id` attribute in the item's opening tag to indicate the number. For example:

```
<item id="0">
```

For the name-value pair field names, this tag is represented as **item\_0**. In this portion of the field name, the underscore before the number does not indicate hierarchy in the XML schema. The item fields are generically referred to as **item\_#\_<element name>** in the documentation.

Below is an example of the numbered `<item>` element and the corresponding name-value pair field names. If you are using SOAP, the client contains a corresponding `Item` class.

### Example Numbered XML Schema Element Names and Name-Value Pair Field Names

XML Schema Element Names	Corresponding Name-Value Pair Field Names
<pre>&lt;item id="0"&gt;   &lt;unitPrice&gt;   &lt;quantity&gt; &lt;/item&gt;</pre>	<pre>item_0_unitPrice item_0_quantity</pre>
<pre>&lt;item id="1"&gt;   &lt;unitPrice&gt;   &lt;quantity&gt; &lt;/item&gt;</pre>	<pre>item_1_unitPrice item_1_quantity</pre>



#### Important

When a request is in XML format and includes an `<item>` element, the element must include an `id` attribute. For example: `<item id="0">`.

## Request Fields

### Naming Conventions for Simple Order API Request Fields



#### Important

The names of most Simple Order API request fields include a preface.

For most Simple Order API request fields, the field name that you use in your code must be prefaced with the name of the service that is being called followed by an underscore ( \_ ). In the following table, an asterisk (\*) before a field name indicates that you should *not* preface the field name with the service name.

Examples:

- Use this field to include the capture ID in a Refund service request **paypalRefundService\_paypalCaptureId**.
- Use this field to set the return URL in a Set service request **paypalEcSetService\_paypalReturn**.

### Request Field Descriptions



#### Note

Some field descriptions come directly from PayPal and are not written by CyberSource.

**Table 16 Request Fields**

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
billTo_city	City of the billing address.	paypalAuthorization Service  paypalDoPayment Service  Required only if Decision Manager is enabled.	String (50)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
billTo_country	Country of the billing address. Use the two-character <a href="#">ISO Standard Country Codes</a> .	PayPalAuthorization Service  PayPalDoPayment Service  Required only if Decision Manager is enabled.	String (2)
* billTo_email	Customer's email address.	PayPalAuthorization Service (R)	String (256)
billTo_postalCode	Postal code for the billing address. The postal code must consist of 5 to 9 digits.  When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] <b>Example</b> 12345-6789  When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] <b>Example</b> A1B 2C3	PayPalAuthorization Service  PayPalDoPayment Service  Required only if Decision Manager is enabled AND the billing country is US or Canada.	String (10)
billTo_state	State or province of the billing address. Use the <a href="#">State, Province, and Territory Codes for the United States and Canada</a> .	PayPalAuthorization Service  PayPalDoPayment Service  Required only if Decision Manager is enabled AND the billing country is US or Canada.	String (2)
billTo_street1	First line of the billing street address.	PayPalAuthorization Service  PayPalDoPayment Service  Required only if Decision Manager is enabled.	String (60)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
completeType	Indicates whether this is a partial capture or a complete capture. Possible values: <ul style="list-style-type: none"> <li>Complete: Complete capture</li> <li>NotComplete: Partial capture</li> </ul>	paypalDoPayment Service (R)	String (12)
currency	Currency code for one of the PayPal transactional currencies. See <a href="#">Appendix C, "Currency Codes,"</a> on page 108.  <b>Note</b> PayPal can add currencies at any time. For an up-to- list of currencies supported by PayPal, contact your PayPal representative.  <b>Important</b> To request transactions in currencies other than CNY for customers located in China, contact CyberSource Customer Support to have your account configured for this functionality.	paypalTransaction SearchService (O)	String (3)
endDate	Date and time at which to end the search. The date must be in UTC/GMT.  Format: YYYY-MM-DDTHH:MM:SSZ  <b>Example</b> 2012-09-15T17:23:15Z	paypalTransaction SearchService (O)	String (20)
grandTotalAmount	Grand total for the entire order.  Format: <ul style="list-style-type: none"> <li>Cannot include a currency symbol</li> <li>Must include two decimal places</li> <li>The decimal separator must be a period (.)</li> </ul>	paypalTransaction SearchService (O)	String (15)
invoiceNumber	Your invoice or tracking number. This value must be unique.	paypalEcSetService (O)  paypalEcDoPayment Service (O)  paypalEcOrderSetup Service (O)  paypalDoCapture Service (O)  paypalDoRef TransactionService (O)  paypalTransaction SearchService (O)	String (127)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
* item_#_productCode	<p>Type of product. You can set this field to a value that you create or one of the predefined values listed in <a href="#">Appendix D, "Product Codes," on page 109</a>. The default value is <code>default</code>.</p> <p>If you set this field to a value other than <code>default</code> or one of the shipping and handling values, you must also include these item-level fields in your request:</p> <ul style="list-style-type: none"> <li>■ product name</li> <li>■ product SKU</li> <li>■ quantity</li> </ul> <p>See <a href="#">"Numbered Elements," page 41</a>.</p> <p><b>Note</b> To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature.</p>	<p>paypalEcSetService (See description)</p> <p>paypalEcDoPayment Service (See description)</p> <p>paypalEcOrderSetup Service (See description)</p> <p>paypalDoRef TransactionService (See description)</p>	String (255)
* item_#_productDescription	<p>For the log data to be complete, you must include this field in requests that include item-level fields. See <a href="#">"Numbered Elements," page 41</a>.</p>	<p>paypalEcSetService (O)</p> <p>paypalEcDoPayment Service (O)</p> <p>paypalEcOrderSetup Service (O)</p> <p>paypalDoRef TransactionService (O)</p>	String (127)
* item_#_productName	<p>This field is required if the product code is not <code>default</code> or one of the shipping and handling values. See <a href="#">"Numbered Elements," page 41</a>.</p>	<p>paypalEcSetService (See description)</p> <p>paypalEcDoPayment Service (See description)</p> <p>paypalEcOrderSetup Service (See description)</p> <p>paypalDoRef TransactionService (See description)</p>	String (127)

\* Do not preface this field with part of the service name. See ["Naming Conventions for Simple Order API Request Fields," page 42](#).

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
* item_#_productSKU	Identification code for the product. This field is required if the product code is not default or one of the shipping and handling values. See <a href="#">"Numbered Elements," page 41</a> .	PayPalEcSetService (See description)  PayPalEcDoPayment Service (See description)  PayPalEcOrderSetup Service (See description)  PayPalDoRef TransactionService (See description)	String (127)
* item_#_quantity	The default for this field is 1. This field is required if the product code is not default or one of the shipping and handling values. See <a href="#">"Numbered Elements," page 41</a> .	PayPalEcSetService (See description)  PayPalEcDoPayment Service (See description)  PayPalEcOrderSetup Service (See description)  PayPalDoRef TransactionService (See description)	Nonnegative integer (10)
* item_#_taxAmount	<p>Total tax to apply to the product. This value cannot be negative. The tax amount and the unit price must be in the same currency. See <a href="#">"Numbered Elements," page 41</a>.</p> <p>The tax amount field is additive. For example:</p> <ol style="list-style-type: none"> <li>1 You send one item with a unit price of 10.00 and a tax amount of 0.80, and you send another item with a unit price of 20.00 and a tax amount of 1.60.</li> <li>2 The total amount authorized will be 32.40, not 30.00 with 2.40 of tax included.</li> </ol> <p>If you want to include the tax amount and also request the <b>taxService</b> service, see <a href="#">Tax Calculation Service Using the Simple Order API</a>.</p>	PayPalEcSetService (O)  PayPalEcDoPayment Service (O)  PayPalEcOrderSetup Service (O)  PayPalDoRef TransactionService (O)	String (15)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
* item_#_unitPrice	<p>Per-item price of the product. You must include either this field or <b>purchaseTotals_grandTotalAmount</b> in your request. See <a href="#">"Numbered Elements," page 41</a>. Also see the information about items and grand totals in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a>.</p> <p>This value must not exceed the equivalent of 10,000 USD in any currency. This value cannot be negative.</p> <p>Format:</p> <ul style="list-style-type: none"> <li>■ Cannot include a currency symbol</li> <li>■ Must include two decimal places</li> <li>■ The decimal separator must be a period (.)</li> </ul> <p><b>Important</b> If this value is less than or equal to zero, PayPal declines the transaction.</p>	<p>paypalEcSetService (See description)</p> <p>paypalEcDoPaymentService (See description)</p> <p>paypalEcOrderSetupService (See description)</p> <p>paypalDoRefTransactionService (See description)</p>	String (15)
* linkToRequest	Value that links the current request to a previous authorization request for a debit card or prepaid card. This value is useful when using multiple payment methods to complete an order. For more information, see "Partial Authorizations" in <i>Credit Card Services Using the Simple Order API</i> ( <a href="#">PDF</a>   <a href="#">HTML</a> ).	String (26)	String (30)
* merchantID	Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required for all PayPal Express Checkout services.	String (30)
* merchantReference Code	Order reference number or tracking number that you generate. CyberSource recommends that you send a unique value for each transaction so that you can perform meaningful searches for the transaction. See the information about tracking orders in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> .	Required for all PayPal Express Checkout services	String (50)
payerFirstname	Customer's first name.	paypalTransactionSearchService (O)	String (25)
payerLastname	Customer's last name.	paypalTransactionSearchService (O)	String (25)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
payerMiddlename	Customer's middle name.	paypalTransaction SearchService (O)	String (25)
payerSalutation	Customer's salutation.	paypalTransaction SearchService (O)	String (20)
payerSuffix	Customer's suffix.	paypalTransaction SearchService (O)	String (12)
paymentStatus	<p>Possible values:</p> <ul style="list-style-type: none"> <li>■ <b>Denied:</b> You denied the payment. You can deny a payment only if the payment was pending.</li> <li>■ <b>Pending:</b> The payment is pending. To find out why the payment is pending, request <b>paypalGetTxnDetailsService</b> and look at the value for the <b>paypalPendingReason</b> field in the reply message.</li> <li>■ <b>Processing:</b> The payment is being processed.</li> <li>■ <b>Reversed:</b> The payment was reversed as the result of a chargeback or other type of reversal. The funds were removed from your account balance and returned to the buyer.</li> <li>■ <b>Success:</b> The payment was completed and the funds were successfully added to your account balance.</li> </ul>	paypalTransaction SearchService (O)	String (20)
paypalAddress Override	<p>Customer-supplied address sent in the SetExpressCheckout request rather than the address on file with PayPal for this customer.</p> <p><b>Note</b> You can use this field only with the payment method, not with the shortcut method. See "<a href="#">Introduction to PayPal Express Checkout</a>," page 9, for a description of the PayPal methods.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>■ 1: Display the customer-supplied address.</li> <li>■ 0 (default): Display the address on file with PayPal. The customer cannot edit this address.</li> </ul>	paypalEcSetService (O)	String (1)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			



Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalAuthorizationId	<p>Unique PayPal authorization identification number.</p> <p>For the <code>paypalDoCaptureService</code>, use the number returned in the authorization reply in the <b>paypalAuthorizationReply_transactionId</b> field.</p> <p>For <code>paypalAuthReversalService</code>, use the number returned in the <b>paypalEcOrderSetupReply_transactionId</b> field.</p>	<p><code>paypalDoCaptureService</code> (R)</p> <p><code>paypalAuthReversalService</code> (R)</p>	String (19)
paypalAuthorizationRequestID	<p>Value of <b>requestID</b> returned from a previous request for <b>paypalAuthorizationService</b>. This is the <b>requestID</b> of the authorization you want to capture or reverse.</p> <p>If you request the authorization and capture services together, you do not need to provide a request ID for the capture request.</p>	<p><code>paypalDoCaptureService</code> (See description)</p> <p><code>paypalAuthReversalService</code> (See description)</p>	String (26)
paypalAuthorizationRequestToken	<p>Request token returned from a previous Authorization request. This is the request token from the authorization you want to capture or reverse. If you request the authorization and capture services together, you do not need to provide a request token for the capture request.</p> <p>The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.</p>	<p><code>paypalDoCaptureService</code> (R)</p> <p><code>paypalAuthReversalService</code> (R)</p>	String (256)
paypalBillingAgreementCustom	Custom annotation field for your own use.	<p><code>paypalEcSetService</code> (O for billing agreements; otherwise, not used)</p> <p><code>paypalUpdateAgreementService</code> (O)</p>	String (256)
paypalBillingAgreementDesc	<p>Description of the goods or services associated with the billing agreement. PayPal recommends that the description include a brief summary of the billing agreement terms and conditions.</p> <p><b>Example</b> 9.99 per month for 2 years.</p>	<p><code>paypalEcSetService</code> (O for billing agreements; otherwise, not used)</p> <p><code>paypalUpdateAgreementService</code> (O)</p>	Alphanumeric String (127)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalBillingAgreementId	Identifier for the billing agreement.	paypalUpdateAgreementService (R)  paypalDoRefTransactionService (R)	String (256)
paypalBillingAgreementStatus	Status of the billing agreement. Possible values:  <ul style="list-style-type: none"> <li>■ Active: The billing agreement is active.</li> <li>■ Canceled: The billing agreement is canceled.</li> </ul>	paypalUpdateAgreementService (R)	String (8)
paypalBillingType	Type of billing agreement to create. The only possible value is <code>MerchantInitiatedBilling</code> , which creates a billing agreement for payments that you initiate.	paypalEcSetService (R for billing agreements; otherwise, not used)	String (25)
paypalCancelReturn	URL to which customers are returned if they do not approve the use of PayPal for payment.	paypalEcSetService (R)	String (no limit)
paypalCaptureId	Unique PayPal transaction identification number returned in the capture reply in the <b>paypalDoCaptureReply_transactionId</b> field.	paypalRefundService (R)	String (17)
paypalCustomerEmail	Email address of the customer as entered during checkout. PayPal uses this value to pre-fill the PayPal membership sign-up portion of the PayPal login page.	paypalEcSetService (O)  paypalEcDoPaymentService (R)  paypalEcOrderSetupService (R)  paypalAuthorizationService (R)  paypalTransactionSearchService (O)	String (127)
paypalDesc	Description of items the customer is purchasing.	paypalEcSetService (O)  paypalEcDoPaymentService (O)  paypalEcOrderSetupService (O)  paypalDoRefTransactionService (O)	String (127)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalDoCaptureRequestID	Value of <b>requestID</b> returned from a previous request for <b>paypalDoCaptureService</b> . When calling <b>paypalRefundService</b> , this is the <b>requestID</b> of the capture you want to credit.	paypalRefundService (R)	String (26)
paypalDoCaptureRequestToken	Request token returned from a previous Do Capture request. This is the request token from the capture you want to credit.  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	paypalRefundService (R)	String (256)
paypalDoRefTransactionRequestID	Value of <b>requestID</b> returned from a previous request for <b>paypalDoRefTransactionService</b> .	paypalAuthorizationService (R)	String (26)
paypalDoRefTransactionRequestToken	Request token returned from a previous Do Reference Transaction request.  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	paypalAuthorizationService (R)	String (256)
paypalEcDoPaymentRequestID	Value of <b>requestID</b> returned from a previous request for <b>paypalEcDoPaymentService</b> . This is the <b>requestID</b> of the payment you want to capture or reverse.  If you request the payment and capture services together, you do not need to provide a request ID for the capture request.	paypalDoCaptureService (See description) paypalAuthReversalService (See description)	String (26)
paypalEcDoPaymentRequestToken	Request token returned from a previous Do Payment request. This is the request token from the payment you want to capture or reverse. If you request the payment and capture services together, you do not need to provide a request token for the capture request.  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	paypalDoCaptureService (R) paypalAuthReversalService (R)	String (256)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalEcNotifyUrl	URL to which your Instant Payment Notification (IPN) is sent. If you do not include this value, the notification URL in your merchant account will be used, if one exists.	paypalDoRef TransactionService (O)	Alphanumeric (2048)
paypalEcOrderSetup RequestID	Value of <b>requestID</b> returned from a previous request for <b>paypalEcOrderSetupService</b> . This is the <b>requestID</b> of the order setup you want to authorize or reverse.	paypalAuthorization Service (R)  paypalAuthReversal Service (See description)	String (26)
paypalEcOrderSetup RequestToken	Request token returned from a previous Order Setup request. This is the request token from the order setup you want to authorize or reverse.  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	paypalAuthorization Service (R)  paypalAuthReversal Service (R)	String (256)
paypalEcSetRequestID	Value of <b>requestID</b> returned from a previous request for <b>paypalEcSetService</b> .	paypalEcSetService (Required unless it is the first call to <b>paypalEcSetService</b> )  paypalEcGetDetails Service (R)  paypalEcDoPayment Service (R)  paypalEcOrderSetup Service (R)  paypalCreate AgreementService (R)	String (26)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalEcSetRequest Token	Request token returned from a previous Set request.  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	paypalEcSetService (Required unless it is the first call to <b>paypalEcSetService</b> )  paypalEcGetDetails Service (R)  paypalEcDoPayment Service (R)  paypalEcOrderSetup Service (R)  paypalCreate AgreementService (R)	String (256)
paypalHdrbackcolor	Background color for the header of the payment page.  Format: HTML hexadecimal color	paypalEcSetService (O)	String (6)
paypalHdrbordercolor	Border color around the header of the payment page.  Format: HTML hexadecimal color	paypalEcSetService (O)	String (6)
paypalHdring	URL for the image that will be displayed in the upper left area of the payment page.	paypalEcSetService (O)	String (127)
paypalLc	Locale of pages displayed by PayPal during Express Checkout.  Possible values: <ul style="list-style-type: none"> <li>■ AU: Australia</li> <li>■ DE: Germany</li> <li>■ ES: Spain</li> <li>■ FR: France</li> <li>■ GB: United Kingdom</li> <li>■ IT: Italy</li> <li>■ US (default): United States</li> </ul>	paypalEcSetService (O)	String (2)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalLogoimg	<p>URL for an image that PayPal displays on the payment form. This field enables you to add your logo or other image to the PayPal payment form.</p> <p>If you provide this value and <b>paypalHdrimg</b> in your request, PayPal uses this value and ignores <b>paypalHdrimg</b>.</p> <p><b>Note</b> Contact CyberSource Customer Support to have your account configured for this feature.</p>	paypalEcSetService (O)	String (127)
paypalMaxamt	<p>Expected maximum total amount of the entire order, including shipping costs and tax charges. This value must not exceed the equivalent of 10,000 USD in any currency.</p> <p>Format:</p> <ul style="list-style-type: none"> <li>■ Cannot include a currency symbol</li> <li>■ Must include two decimal places</li> <li>■ The decimal separator must be a period (.)</li> </ul>	paypalEcSetService (O)	String (15)
paypalNoshipping	<p>Indicates whether the shipping address should be displayed on the PayPal web pages.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>■ 0 (default): Shipping address fields should be displayed.</li> <li>■ 1: Shipping address fields should not be displayed.</li> </ul>	paypalEcSetService (O)	String (1)
paypalNote	Memo about the refund. PayPal sends this information to the customer in the notification email.	paypalRefundService (O)	String (255)
paypalOrderId	<p>Transaction identifier created by PayPal. This field is returned:</p> <ul style="list-style-type: none"> <li>■ For a standard order: In the <b>paypalEcDoPaymentReply_transactionId</b> in the reply from <b>paypalEcDoPaymentService</b>.</li> <li>■ For a custom order: In the <b>paypalEcOrderSetupReply_transactionId</b> in the reply from <b>paypalEcOrderSetupService</b>.</li> </ul>	paypalAuthorization Service (O)	String (255)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalPagestyle	Sets the Custom Payment Page Style for payment pages associated with this button or link. This value corresponds to the HTML variable <code>page_style</code> for customizing payment pages. The value is the same as the Page Style Name you choose when adding or editing the page style from the Profile tab of the My Account tab of your PayPal account.	paypalEcSetService (O)	Alphabetic String (30)
paypalPayerId	Unique PayPal customer account identification number that was returned in the <b>paypalEcGetDetailsService</b> reply message.	paypalEcDoPaymentService (R) paypalEcOrderSetupService (R)	String (13)
paypalPayflowcolor	Background color for the payment page. Format: HTML hexadecimal color	paypalEcSetService (O)	String (6)
paypalPaymentType	Indicates whether the payment is instant or delayed. Possible values: <ul style="list-style-type: none"> <li>■ <code>echeck</code></li> <li>■ <code>instant</code></li> </ul>	paypalEcSetService (O for billing agreements; otherwise, not used) paypalDoRefTransactionService (R)	String (7)
paypalReceiptId	Receipt identification number. Format: NNNN-NNNN-NNNN-NNNN	paypalTransactionSearchService (O)	String (16)
paypalReqconfirm shipping	Indicates if you require the customer's shipping address on file with PayPal to be a confirmed address. Possible values: <ul style="list-style-type: none"> <li>■ 0 (default): Shipping address need not be confirmed.</li> <li>■ 1: Shipping address must be confirmed.</li> </ul>	paypalEcSetService (O) paypalDoRefTransactionService (O)	String (1)
paypalReturn	URL to which the customer's browser returns after leaving PayPal. <b>Note</b> It is essential that this be the correct URL or you will receive an error.	paypalEcSetService (R)	String (no limit)
paypalReturnFmf Details	Indicates whether or not to return to you the results that were returned by Fraud Management Filters (FMF). By default, you do not receive this information. Possible values: <ul style="list-style-type: none"> <li>■ 0 (default): Do not return FMF results.</li> <li>■ 1: Return FMF results.</li> </ul>	paypalDoRefTransactionService (O)	String (1)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypalShippingDiscount	<p>Shipping discount for the order. This value:</p> <ul style="list-style-type: none"> <li>■ Must not exceed the equivalent of 10,000 USD in any currency.</li> <li>■ Cannot include a currency symbol.</li> </ul> <p>If a decimal separator is used, it must be a period (.) regardless of the currency. If a thousands separator is used, it must be a comma (,) regardless of the currency.</p>	paypalDoRef TransactionService (O)	String (9)
paypalSoftDescriptor	Description that is displayed on the customer's account statement.	paypalDoRef TransactionService (O)	String (256)
paypalToken	Timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout. This value is returned by <b>paypalEcSetService</b> the first time you request the service.	paypalEcSetService (Required unless it is the first call to <b>paypalEcSetService</b> )  paypalEcGetDetailsService (R)  paypalEcDoPaymentService (R)  paypalEcOrderSetupService (R)  paypalCreateAgreementService (R)	String (20)
promoCode0	Promotion code that enables customers to apply PayPal promotions to your products when purchased through PayPal Express Checkout.	paypalEcSetService (O)  paypalEcDoPaymentService (O)  paypalEcOrderSetupService (O)	String (20)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.



Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
* purchaseTotals_ currency	<p>Currency code for one of the PayPal transactional currencies. See <a href="#">Appendix C, "Currency Codes,"</a> on page 108.</p> <p><b>Note</b> PayPal can add currencies at any time. For an up-to- list of currencies supported by PayPal, contact your PayPal representative.</p> <p><b>Important</b> To request transactions in currencies other than CNY for customers located in China, contact CyberSource Customer Support to have your account configured for this functionality.</p>	<p>paypalEcSetService (R)</p> <p>paypalEcDoPaymentService (R)</p> <p>paypalEcOrderSetupService (R)</p> <p>paypalAuthorizationService (R)</p> <p>paypalDoCaptureService (R)</p> <p>paypalDoRefTransactionService (R)</p>	String (3)
* purchaseTotals_ grandTotalAmount	<p>Grand total for the entire order. If you know the shipping costs and tax amounts, include them in this value. If you do not know the shipping costs and tax amounts, this value should be the subtotal for the order. This value must not exceed the equivalent of 10,000 USD in any currency. This value cannot be negative.</p> <p>For <b>paypalEcSetService</b>, <b>paypalEcDoPaymentService</b>, <b>paypalEcOrderSetupService</b>, and <b>paypalDoRefTransactionService</b>, the request must include either this field or <b>item_0_unitPrice</b>. See the information about items and grand totals in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a>.</p> <p>Format:</p> <ul style="list-style-type: none"> <li>■ Cannot include a currency symbol</li> <li>■ Must include two decimal places</li> <li>■ The decimal separator must be a period (.)</li> </ul>	<p>paypalEcSetService (See description)</p> <p>paypalEcDoPaymentService (See description)</p> <p>paypalEcOrderSetupService (See description)</p> <p>paypalAuthorizationService (R)</p> <p>paypalDoCaptureService (R)</p> <p>paypalRefundService (R)</p> <p>paypalDoRefTransactionService (See description)</p>	String (15)
requestBillingAddress	<p>Indicates whether to return the customer's billing address when you call <b>paypalEcGetDetailsService</b>. Possible values:</p> <ul style="list-style-type: none"> <li>■ 0: Do not return the customer's billing address.</li> <li>■ 1: Return the customer's billing address.</li> </ul>	paypalEcSetService (O)	String (1)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
run	Indicates whether to include the service in your request. Possible values: <ul style="list-style-type: none"> <li>■ <code>true</code>: Include the service in your request.</li> <li>■ <code>false</code> (default): Do not include the service in your request.</li> </ul>	Required for all PayPal Express Checkout Services	String (5)
* shipTo_city	City of the shipping address.	paypalEcSetService (O) paypalEcDoPaymentService (O)	String (40)
* shipTo_country	Country of the shipping address. Use the two-character <a href="#">ISO Standard Country Codes</a> .	paypalEcSetService (O) paypalEcDoPaymentService (O)	String (2)
* shipTo_firstName	First name of the recipient.	paypalEcDoPaymentService (O) paypalEcSetService (O)	String (15)
* shipTo_lastName	Last name of the recipient.	paypalEcSetService (O) paypalEcDoPaymentService (O)	String (15)
* shipTo_phone Number	Phone number for the shipping address.	paypalEcSetService (O) paypalEcDoPaymentService (O)	String (20)
* shipTo_postalCode	Postal code for the shipping address. The postal code must consist of 5 to 9 digits.  When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] <b>Example</b> 12345-6789  When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] <b>Example</b> A1B 2C3	paypalEcSetService (O) paypalEcDoPaymentService (O)	String (20)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.			

Table 16 Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
* shipTo_state	State or province of the shipping address. Use the <a href="#">State, Province, and Territory Codes for the United States and Canada</a> .	paypalEcSetService (O) paypalEcDoPayment Service (O)	String (40)
* shipTo_street1	First line of the shipping address.	paypalEcSetService (O) paypalEcDoPayment Service (O)	String (100)
* shipTo_street2	Second line of the shipping address.	paypalEcSetService (O) paypalEcDoPayment Service (O)	String (100)
startDate	Date and time at which to start the search. The date must be in UTC/GMT. Format: YYYY-MM-DDTHH:MM:SSZ <b>Example</b> 2012-08-15T17:23:15Z	paypalTransaction SearchService (R)	String (20)
transactionID	Value of <b>transactionId</b> returned from a previous request. This is the <b>transactionId</b> of the transaction for which you are requesting information.	paypalTransaction SearchService (O) paypalGetTxnDetails Service (R)	String (17)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Request Fields," page 42.

## Reply Fields

### Naming Conventions for Simple Order API Reply Fields



**Important**

The names of most Simple Order API reply fields include a preface.

For most Simple Order API reply fields, the field name that you use in your code must include a preface followed by an underscore ( `_` ). The following table lists the Simple Order API services and the preface to use for each service. In [Table 18](#), an asterisk ( `*` ) before a field name indicates that you should *not* preface the field name.

**Table 17 Prefaces for Simple Order API Reply Fields**

Service Name	Preface
paypalAuthorizationService	paypalAuthorizationReply
paypalAuthReversalService	paypalAuthReversalReply
paypalCreateAgreementService	paypalCreateAgreementReply
paypalDoCaptureService	paypalDoCaptureReply
paypalDoRefTransactionService	paypalDoRefTransactionReply
paypalEcDoPaymentService	paypalEcDoPaymentReply
paypalEcGetDetailsService	paypalEcGetDetailsReply
paypalEcOrderSetupService	paypalEcOrderSetupReply
paypalEcSetService	paypalEcSetReply
paypalGetTxnDetailsService	paypalGetTxnDetailsReply
paypalRefundService	paypalRefundReply
paypalTransactionSearchService	paypalTransactionSearchReply
paypalUpdateAgreementService	paypalUpdateAgreementReply

Examples:

- The Do Capture service returns the receipt ID in **paypalDoCaptureReply\_paypalReceiptId**.
- The Get Details service returns the shipping country in **paypalEcGetDetailsReply\_shipToCountry**.

## Reply Field Descriptions



### Note

Some field descriptions come directly from PayPal and are not written by CyberSource.

In the following table, an asterisk (\*) before a field name indicates that you should *not* preface the field name.

**Table 18 Reply Fields**

Field	Description	Returned By	Data Type & Length
addressID	eBay company that maintains this address. Possible values: <ul style="list-style-type: none"> <li>▪ eBay</li> <li>▪ PayPal</li> </ul>	PayPalEcGetDetails Service  PayPalGetTxnDetails Service	String (20)
addressStatus	Status of the street address on file with PayPal. Possible values: <ul style="list-style-type: none"> <li>▪ None</li> <li>▪ Confirmed</li> <li>▪ Unconfirmed</li> </ul>	PayPalEcGetDetails Service  PayPalUpdateAgreementService  PayPalGetTxnDetails Service	String (12)
amount	Total transaction amount.	PayPalEcSetService  PayPalEcDoPayment Service  PayPalEcOrderSetup Service  PayPalAuthorization Service  PayPalDoCapture Service	String (15)
authorizationId	Authorization identification number that was sent in the request.	PayPalDoCapture Service  PayPalAuthReversal Service	String (19)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
avsCode	Indicates the status of the customer's address. Possible values: <ul style="list-style-type: none"> <li>■ 1: None</li> <li>■ 2: Other</li> <li>■ 3: Confirmed</li> <li>■ 4: Unconfirmed</li> </ul>	paypalEcGetDetails Service	Numeric (1)
city	City in the customer's billing address.	paypalEcGetDetails Service	String (40)
correlationID	Identifier that can be used for working with PayPal to investigate issues.	All PayPal Express Checkout services	String (20)
countryCode	Code for the country in the customer's billing address.	paypalEcGetDetails Service	String (2)
countryName	Name of the country in the customer's billing address.	paypalEcGetDetails Service	String (40)
currency	Currency code for one of the PayPal transactional currencies. See <a href="#">Appendix C, "Currency Codes,"</a> on page 108.  <b>Note</b> PayPal can add currencies at any time. For an up-to-date list of currencies supported by PayPal, contact your PayPal representative.	paypalEcSetService paypalEcDoPayment Service paypalEcOrderSetup Service paypalAuthorization Service paypalDoCapture Service paypalDoRef TransactionService paypalGetTxnDetails Service	String (3)
* decision	Summarizes the result of the overall request. See the information about handling replies in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> . Possible values: <ul style="list-style-type: none"> <li>■ ACCEPT</li> <li>■ ERROR</li> <li>■ REJECT</li> <li>■ REVIEW</li> </ul>	All PayPal Express Checkout services	String (6)
errorCode	Identifier that can be used for working with PayPal to investigate issues.	All PayPal Express Checkout services	String (10)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
* invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> .	All PayPal Express Checkout services	String (100)
* item_#_productCode	Type of product. Possible values: <ul style="list-style-type: none"> <li>▪ coupon</li> <li>▪ default</li> <li>▪ handling_only</li> <li>▪ shipping_and_handling</li> </ul> <p><b>Note</b> The <code>shipping_only</code> line items are not returned. Instead, their amount values are added to the <code>shipping_and_handling</code> line item.</p> <p><b>Note</b> If you use a customized value for the product code, you receive a value of <code>default</code> in this field.</p>	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (255)
* item_#_productDescription	The product description is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (127)
* item_#_productName	The product name is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (127)
* item_#_productSKU	Identification code for the product.	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (127)
* item_#_quantity	The quantity is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	PayPalEcGetDetails Service PayPalGetTxnDetails Service	Nonnegative integer (10)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.			

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
* item_#_unitPrice	Per-item price of the product.	paypalEcGetDetails Service paypalGetTxnDetails Service	String (15)
* merchantReference Code	Order reference or tracking number that you provided in the request. If you included multi-byte characters in this field in the request, the returned value might contain corrupted characters.	All PayPal Express Checkout services	String (50)
* missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> .	All PayPal Express Checkout services	String (100)
orderId	Transaction identifier created by PayPal.	paypalEcDoPayment Service	String (255)
parentTransactionId	Identifier for the original transaction to which this transaction is related. Field populated for: <ul style="list-style-type: none"> <li>■ Authorization of an order</li> <li>■ Capture of an authorized transaction</li> <li>■ Capture of an order</li> <li>■ Capture of an order authorization</li> <li>■ Reauthorization of a transaction</li> <li>■ Reversal</li> <li>■ Void of an order</li> </ul> Format: NNNN-NNNN-NNNN-NNNN	paypalDoCapture Service paypalGetTxnDetails Service	String (19)
payer	Customer's email address.	paypalEcGetDetails Service paypalUpdateAgreementService paypalGetTxnDetails Service	String (127)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.



Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
payerBusiness	Customer's business name.	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (127)
payerCountry	Country to ship the product to. Use the two-character <a href="#">ISO Standard Country Codes</a> .	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (2)
payerFirstname	Customer's first name.	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (25)
payerId	Customer's unique PayPal account identification number.	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (13)
payerLastname	Customer's last name.	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (25)
payerMiddlename	Customer's middle name.	paypalEcGetDetailsService paypalUpdateAgreementService paypalGetTxnDetailsService	String (25)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
payerPhone	Customer's contact telephone number. Field mask for U.S. numbers: XXX - XXX - XXXX Field mask for international numbers: +XXX XXXXXXXXX	paypalEcGetDetails Service	String (20)
payerSalutation	Customer's salutation.	paypalEcGetDetails Service  paypalUpdate AgreementService  paypalGetTxnDetails Service	String (20)
payerStatus	Customer's status. Possible values: <ul style="list-style-type: none"> <li>■ verified</li> <li>■ unverified</li> </ul>	paypalEcGetDetails Service  paypalUpdate AgreementService  paypalGetTxnDetails Service	String (10)
payerSuffix	Customer's suffix.	paypalEcGetDetails Service  paypalUpdate AgreementService  paypalGetTxnDetails Service	String (12)
paymentType	Indicates whether the payment is instant or delayed. Possible values: <ul style="list-style-type: none"> <li>■ none</li> <li>■ echeck</li> <li>■ instant</li> </ul>	paypalEcDoPayment Service  paypalEcOrderSetup Service	String (7)
paypalAmount	Final amount charged.	paypalEcDoPayment Service  paypalEcOrderSetup Service  paypalAuthorization Service  paypalDoRef TransactionService	String (15)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalBillingAgreementAcceptedStatus	Indicates if the customer accepted the billing agreement. Possible values: <ul style="list-style-type: none"> <li>■ 0: Not accepted</li> <li>■ 1: Accepted</li> </ul>	paypalEcGetDetailsService	String (1)
paypalBillingAgreementCustom	Custom annotation field.	paypalUpdateAgreementService	String (256)
paypalBillingAgreementDesc	Description of the goods or services associated with the billing agreement.	paypalUpdateAgreementService	String (127)
paypalBillingAgreementId	Identifier for the billing agreement.	paypalCreateAgreementService paypalEcDoPaymentService paypalUpdateAgreementService paypalDoRefTransactionService	String (256)
paypalBillingAgreementStatus	Status of the billing agreement. Possible values: <ul style="list-style-type: none"> <li>■ Active: The billing agreement is active.</li> <li>■ Canceled: The billing agreement has been cancelled.</li> </ul>	paypalUpdateAgreementService	String (8)
paypalExchangeRate	Exchange rate if a currency conversion occurred.	paypalEcDoPaymentService paypalEcOrderSetupService paypalDoCaptureService paypalDoRefTransactionService paypalGetTxnDetailsService	String (17)
paypalFeeAmount	PayPal fee charged for the transaction. This value does not exceed the equivalent of 10,000 USD in any currency and does not include a currency symbol. The decimal separator is a period (.) and the optional thousands separator is a comma (,).	paypalEcDoPaymentService paypalEcOrderSetupService paypalDoCaptureService paypalGetTxnDetailsService	String (9)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalFeeRefund Amount	Amount of PayPal fee refunded if the capture was refunded. This value does not exceed the equivalent of 10,000 USD in any currency and does not include a currency symbol. The decimal separator is a period (.) and the optional thousands separator is a comma (,).	paypalRefundService	String (9)
paypalGrossRefund Amount	Amount of money refunded to the customer.	paypalRefundService	Ask your PayPal representative
invoiceNumber	Your invoice or tracking number.	paypalGetTxnDetails Service	String (127)
paypalNetRefund Amount	Amount subtracted from PayPal balance of the customer who is getting the refund.	paypalRefundService	Ask your PayPal representative
paypalNote	Memo or note that the customer entered on the PayPal pages.	paypalGetTxnDetails Service	String (255)
paypalOrderTime	Date-time stamp of the payment. Format: YYYY-MM-DDTHH:MM:SSZ <b>Example</b> 2012-08-15T17:23:15Z	paypalEcDoPayment Service paypalEcOrderSetup Service paypalDoCapture Service paypalDoRef TransactionService paypalGetTxnDetails Service	String (20)
paypalPaymentGross Amount	Final amount charged including shipping costs and taxes from your PayPal Merchant Profile. This value does not exceed the equivalent of 10,000 USD in any currency and does not include a currency symbol. The decimal separator is a period (.) and the optional thousands separator is a comma (,).	paypalDoCapture Service paypalGetTxnDetails Service	Ask your PayPal representative

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalPaymentStatus	<p>Status of the transaction. Possible values:</p> <ul style="list-style-type: none"> <li>■ Canceled-Reversal: PayPal canceled the reversal, which happens when you win a dispute and the funds for the reversal are returned to you.</li> <li>■ Completed: PayPal completed the payment and added the funds to your account.</li> <li>■ Denied: You denied a payment, which happens only if the payment was pending for the reason indicated in the <b>paypalPendingReason</b> field.</li> <li>■ Expired: The authorization expired.</li> <li>■ Failed: The payment failed. This event can happen only when the payment is made from your customer's bank account.</li> <li>■ In-Progress: The transaction has not been completed yet.</li> <li>■ None: No status.</li> <li>■ Partially-Refunded: The payment was partially refunded.</li> <li>■ Pending: The payment is pending for the reason indicated in the <b>paypalPending Reason</b> field.</li> <li>■ Processed: PayPal accepted the payment.</li> <li>■ ReasonCode</li> <li>■ Refunded: You refunded the payment.</li> <li>■ Reversed: PayPal reversed the payment for the reason specified in the <b>paypal ReasonCode</b> field. The funds were transferred from your account to the customer's account.</li> <li>■ Voided: The authorization was voided.</li> </ul>	<p>paypalEcDoPayment Service</p> <p>paypalEcOrderSetup Service</p> <p>paypalDoCapture Service</p> <p>paypalDoRef TransactionService</p> <p>paypalGetTxnDetails Service</p>	String (20)
paypalPaymentType	<p>Indicates whether the payment is instant or delayed. Possible values:</p> <ul style="list-style-type: none"> <li>■ none</li> <li>■ echeck</li> <li>■ instant</li> </ul>	<p>paypalDoCapture Service</p> <p>paypalDoRef TransactionService</p> <p>paypalGetTxnDetails Service</p>	String (7)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalPendingReason	<p>Indicates the reason that payment is pending. Possible values:</p> <ul style="list-style-type: none"> <li>■ <b>address</b>: Your customer did not include a confirmed shipping address and your Payment Receiving Preferences are set to manually accept or deny such payments. To change your preferences, go to the Preferences section of your PayPal Profile.</li> <li>■ <b>authorization</b>: The payment has been authorized but not settled. You need to capture the authorized amount.</li> <li>■ <b>echeck</b>: Payment was made by an eCheck that has not yet cleared.</li> <li>■ <b>intl</b>: You have a non-U.S. account and do not have a withdrawal mechanism. You must manually accept or deny this payment in your PayPal Account Overview.</li> <li>■ <b>multi-currency</b>: You do not have a balance in the currency sent, and your Payment Receiving Preferences are not set to automatically convert and accept this payment. You must manually accept or deny this payment in your PayPal Account Overview.</li> <li>■ <b>none</b>: No pending reason.</li> <li>■ <b>order</b>: The payment is part of an order that has been authorized but not settled.</li> <li>■ <b>paymentreview</b>: The payment is being reviewed by PayPal for possible fraud.</li> <li>■ <b>unilateral</b>: The payment was made to an email address that is not registered or confirmed.</li> <li>■ <b>verify</b>: Your account is not yet verified. You must verify your account before you can accept this payment.</li> <li>■ <b>other</b>: Payment is pending for a reason not listed above. For more information, contact PayPal customer service.</li> </ul>	<p>paypalEcOrderSetup Service</p> <p>paypalDoCapture Service</p> <p>paypalDoRef TransactionService</p> <p>paypalGetTxnDetails Service</p> <p><b>Note</b> To enable the <b>paypalPendingReason</b> field for <b>paypalDoCaptureService</b>, contact CyberSource Customer Support to have your account configured for this feature.</p>	String (14)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalReasonCode	<p>Indicates the reason for a transaction reversal. Possible values:</p> <ul style="list-style-type: none"> <li>■ <b>buyer-complaint</b>: Your customer submitted a complaint about the transaction.</li> <li>■ <b>chargeback</b>: Your customer initiated a chargeback for this transaction.</li> <li>■ <b>guarantee</b>: Your customer triggered a money-back guarantee.</li> <li>■ <b>none</b>: No reason code.</li> <li>■ <b>refund</b>: You gave the customer a refund.</li> <li>■ <b>other</b>: A reversal has occurred on this transaction due to a reason not listed above. For more information, contact PayPal customer service.</li> </ul>	<p>paypalEcOrderSetup Service</p> <p>paypalDoRef TransactionService</p> <p>paypalGetTxnDetails Service</p>	String (15)
paypalReceiptId	<p>Receipt identification number.</p> <p>Format: NNNN-NNNN-NNNN-NNNN</p>	<p>paypalDoCapture Service</p> <p>paypalGetTxnDetails Service</p>	String (16)
paypalSettleAmount	<p>Amount deposited in your PayPal account after a currency conversion. This value does not exceed the equivalent of 10,000 USD in any currency and does not include a currency symbol. The decimal separator is a period (.) and the optional thousands separator is a comma (,).</p>	paypalGetTxnDetails Service	String (15)
paypalTaxAmount	<p>Tax charged on the transaction. This value does not exceed the equivalent of 10,000 USD in any currency and does not include a currency symbol. The decimal separator is a period (.) and the optional thousands separator is a comma (,).</p>	<p>paypalEcDoPayment Service</p> <p>paypalEcGetDetails Service</p> <p>paypalEcOrderSetup Service</p> <p>paypalDoCapture Service</p> <p>paypalDoRef TransactionService</p> <p>paypalGetTxnDetails Service</p>	String (9)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypalToken	Timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout. You need to save this value to send in future request messages.	paypalEcSetService paypalEcGetDetailsService paypalEcDoPaymentService paypalEcOrderSetupService	String (20)
paypalTransactionType	Type of transaction. Possible values: <ul style="list-style-type: none"> <li>▪ cart</li> <li>▪ express-checkout</li> </ul>	paypalEcDoPaymentService paypalEcOrderSetupService paypalDoCaptureService paypalGetTxnDetailsService	String (16)
paypalTransactionType	Type of transaction. Possible values: <ul style="list-style-type: none"> <li>▪ cart</li> <li>▪ express-checkout</li> </ul> <p><b>Note</b> For <b>PayPalDoRefTransactionService</b>, the last four letters of this field name start with an uppercase "T," but for the other PayPal Express Checkout services, the last four letters of this field name start with a lowercase "t."</p>	paypalDoRefTransactionService	String (16)
postalCode	Postal code in the customer's billing address.	paypalEcGetDetailsService	String (20)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.



Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
protectionEligibility	<p>Seller protection in force for the transaction. Possible values:</p> <ul style="list-style-type: none"> <li>■ <b>Eligible:</b> You are protected by the PayPal Seller Protection Policy for unauthorized payment and item not received.</li> <li>■ <b>PartiallyEligible:</b> You are protected by the PayPal Seller Protection Policy for item not received.</li> <li>■ <b>Ineligible:</b> You are not protected under the PayPal Seller Protection Policy.</li> </ul> <p>PayPal offers additional features that are not currently supported by CyberSource.</p>	<p>paypalAuthorizationService</p> <p>paypalGetTxnDetailsService</p>	String (17)
protectionEligibilityType	<p>Seller protection in force for the transaction. Possible values:</p> <ul style="list-style-type: none"> <li>■ <b>Eligible:</b> You are protected by the PayPal Seller Protection Policy for unauthorized payment and item not received.</li> <li>■ <b>ItemNotReceivedEligible:</b> You are protected by the PayPal Seller Protection Policy for item not received.</li> <li>■ <b>UnauthorizedPaymentEligible:</b> You are protected by the PayPal Seller Protection Policy for unauthorized payment.</li> <li>■ <b>Ineligible:</b> You are not protected under the PayPal Seller Protection Policy.</li> </ul> <p><b>Note</b> To enable the <b>protectionEligibilityType</b> field, contact CyberSource Customer Support to have your account configured for this feature.</p>	<p>paypalAuthorizationService</p> <p>paypalGetTxnDetailsService</p>	String (32)
reasonCode	Numeric value corresponding to the result of the service request. See <a href="#">Appendix E, "Reason Codes,"</a> on page 110.	All PayPal Express Checkout services	Integer (5)
* reasonCode	Numeric value corresponding to the result of the overall request. See <a href="#">Appendix E, "Reason Codes,"</a> on page 110.	All PayPal Express Checkout services	Integer (5)
* requestID	Identifier for the request generated by the client.	All PayPal Express Checkout services	String (26)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.			

Table 18 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
* requestToken	<p>Request token data created by CyberSource for each reply. You need to store the contents of this field so that you can retrieve and send it in follow-on requests. This value is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain up to 256 characters.</p> <p>If you request the Authorization and Capture services together, the request token is for the capture reply only.</p> <p>See the information about request tokens in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a>.</p>	All PayPal Express Checkout services	String (256)
shipToAddress1	First line of the shipping address.	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (100)
shipToAddress2	Second line of the shipping address.	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (100)
shipToCity	City of the shipping address.	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (40)
shipToCountry	Country of the shipping address. Use the two-character <a href="#">ISO Standard Country Codes</a> .	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (2)
shipToName	Name of the recipient.	PayPalGetTxnDetails Service	String (32)
shipToPhone	Phone number for the shipping address.	PayPalGetTxnDetails Service	String (20)
shipToState	State or province of the shipping address. Use the <a href="#">State, Province, and Territory Codes for the United States and Canada</a> .	PayPalEcGetDetails Service PayPalGetTxnDetails Service	String (40)
* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.			

**Table 18 Reply Fields (Continued)**

<b>Field</b>	<b>Description</b>	<b>Returned By</b>	<b>Data Type &amp; Length</b>
shipToZip	Postal code for the shipping address. Consists of 5 to 9 digits.	paypalEcGetDetails Service  paypalGetTxnDetails Service	String (20)
state	Abbreviation for the state or province in the customer's billing address.	paypalEcGetDetails Service	String (40)
street1	First line of the street address in the customer's billing address.	paypalEcGetDetails Service	String (100)
street2	Second line of the street address in the customer's billing address.	paypalEcGetDetails Service	String (100)
transactionId	Unique PayPal identifier for the transaction.	paypalEcDoPayment Service  paypalEcOrderSetup Service  paypalAuthorization Service  paypalDoCapture Service  paypalRefundService  paypalDoRef TransactionService  paypalGetTxnDetails Service	String (17)

\* Do not preface this field with part of the service name. See "Naming Conventions for Simple Order API Reply Fields," page 60.

## Transaction Search Reply Fields

The `paypalTransactionSearchService` service returns information about transactions, up to a maximum of 100 transactions. The transactions are referred to as **transaction\_0**, **transaction\_1**, **transaction\_2**, and so on.



### Note

For the transaction search reply fields, the field name that you use in your code must include a preface followed by an underscore ( `_` ). The preface to use is **paypalTransactionSearchReply**. For example, the Transaction Search service returns the first transaction's currency in **paypalTransactionSearchReply\_transaction\_0\_currency**. "[Transaction Search Example](#)," [page 90](#), and "[Transaction Search Example](#)," [page 106](#), show what the transaction search reply fields look like in a reply message.

**Table 19 Transaction Search Reply Fields**

Field	Description	Returned By	Data Type & Length
transaction_#_ currency	Currency code for the transaction. See <a href="#">Appendix C, "Currency Codes,"</a> on page 108.	paypalTransaction SearchService	String (3)
transaction_#_ customer DisplayName	Customer's name as displayed on the PayPal web pages.	paypalTransaction SearchService	String
transaction_#_ grandTotal Amount	Total transaction amount.	paypalTransaction SearchService	String (15)
transaction_#_ paypalFee Amount	Fee that PayPal charged for the transaction.	paypalTransaction SearchService	Decimal
transaction_#_ paypalNet Amount	Net amount of the transaction.	paypalTransaction SearchService	Decimal
transaction_#_ paypalPayerOr PayeeEmail	If the payment amount is positive, this field is the email address of the payment recipient (the "payee"). If the payment is negative, this field is the email address of the customer.	paypalTransaction SearchService	String (127)

Table 19 Transaction Search Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
transaction_#_ paypalPayment Status	<p>Possible values:</p> <ul style="list-style-type: none"> <li>■ Denied: You denied the payment. You can deny a payment only if the payment was pending.</li> <li>■ Pending: The payment is pending. To find out why the payment is pending, request the <b>ics_paypal_get_txn_details</b> service and look at the value for the <b>paypal_pending_reason</b> field in the reply message.</li> <li>■ Processing: The payment is being processed.</li> <li>■ Reversed: The payment was reversed as the result of a chargeback or other type of reversal. The funds were removed from your account balance and returned to the buyer.</li> <li>■ Success: The payment was completed and the funds were successfully added to your account balance.</li> </ul>	paypalTransaction SearchService	String (20)
transaction_#_ transactionID	Unique PayPal identifier for the transaction.	paypalTransaction SearchService	String (17)
transaction_#_ transaction Time	<p>Date and time when PayPal processed the transaction. This value is in UTC/GMT.</p> <p>Format: YYYY-MM-DDTHH:MM:SSZ</p> <p><b>Example</b> 2012-09-12T17:23:15Z</p>	paypalTransaction SearchService	String (20)
transaction_#_ transaction Timezone	Time zone for the <b>transaction_#_paypal_transaction_time</b> value. This value is always GMT.	paypalTransaction SearchService	String (3)
transaction_#_ transaction Type	<p>Possible values:</p> <ul style="list-style-type: none"> <li>■ Currency Conversion (credit)</li> <li>■ Currency Conversion (debit)</li> <li>■ Payment</li> <li>■ Recurring Payment</li> <li>■ Temporary Hold</li> <li>■ Transfer</li> <li>■ Donation</li> </ul>	paypalTransaction SearchService	String (16)

# Examples

## Name-Value Pair Examples

---

### Billing Agreement Examples

#### Billing Agreement with Payment

This example shows how to create a billing agreement with payment by calling these services:

- `payPalEcSetService`
- `payPalEcGetDetailsService`
- `payPalEcDoPaymentService`
- `payPalDoCaptureService`

#### Example 3 Request for `payPalEcSetService`

---

```
payPalEcSetService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
purchaseTotals_currency=USD
payPalEcSetService_paypalReturn=http://www.cybersource.com
payPalEcSetService_paypalCancelReturn=http://www.cybersource.com/cancel
payPalEcSetService_paypalBillingAgreementDesc=
    Home Town Newspaper Online*4.99 per month
payPalEcSetService_paypalBillingAgreementCustom=One-year subscription
payPalEcSetService_paypalBillingType=MerchantInitiatedBilling
payPalEcSetService_paypalPaymentType=instant
purchaseTotals_grandTotalAmount=4.99
```

---

**Example 4 Reply from PayPalEcSetService**


---

```

decision=ACCEPT
reasonCode=100
paypalEcSetReply_reasonCode=100
requestID=1928320121920167904854
requestToken=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchantReferenceCode=HTNsubscription9647
paypalEcSetReply_correlationID=4lks03uw2lbwxu
paypalEcSetReply_paypalToken=EC-2UN29359TV924162S
paypalEcSetReply_errorCode=93045SLWVO
paypalEcSetReply_amount=4.99

```

---

**Example 5 Request for PayPalEcGetDetailsService**


---

```

paypalEcGetDetailsService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalEcGetDetailsService_paypalEcSetRequestID=1928320121920167904854
paypalEcGetDetailsService_paypalEcSetRequestToken=
    Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypalEcGetDetailsService_paypalToken=EC-2UN29359TV924162S

```

---

**Example 6 Reply from PayPalEcGetDetailsService**


---

```

decision=ACCEPT
reasonCode=100
paypalEcGetDetailsReply_reasonCode=100
requestID=29FJBL593TBQPSLDGK3H
requestToken=Bxwje3Ijb7OskjK6HGG0XF3vllnoyf
merchantReferenceCode=HTNsubscription9647
paypalEcGetDetailsReply_paypalBillingAgreementAcceptedStatus=1
paypalEcGetDetailsReply_correlationID=sldkf9325sdfsdlkjgj
paypalEcGetDetailsReply_avsCode=3
paypalEcGetDetailsReply_paypalToken=EC-2UN29359TV924162S
paypalEcGetDetailsReply_errorCode=93045SLWVO
paypalEcGetDetailsReply_addressStatus=Confirmed
paypalEcGetDetailsReply_payerID=S6D5ETGSVYX94
paypalEcGetDetailsReply_payerStatus=verified
paypalEcGetDetailsReply_payerFirstname=Jane
paypalEcGetDetailsReply_payerLastname=Smith
paypalEcGetDetailsReply_payerCountry=US
paypalEcGetDetailsReply_payer=jsmith@example.com
paypalEcGetDetailsReply_shipToName=Jane Smith
paypalEcGetDetailsReply_shipToAddress1=1295 Charleston Rd.
paypalEcGetDetailsReply_shipToCity=Mountain View
paypalEcGetDetailsReply_shipToState=CA
paypalEcGetDetailsReply_shipToCountry=US
paypalEcGetDetailsReply_shipToZip=94043

```

---

**Example 7 Request for PayPalEcDoPaymentService**


---

```

paypalEcDoPaymentService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalEcDoPaymentService_paypalEcSetRequestID=1928323124420167904854
paypalEcDoPaymentService_paypalEcSetRequestToken=
    Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypalEcDoPaymentService_paypalToken=EC-2UN29359TV924162S
paypalEcDoPaymentService_paypalCustomerEmail=jsmith@example.com
paypalEcDoPaymentService_paypalPayerId=S6D5ETGSVYX94
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=4.99

```

---

**Example 8 Reply from PayPalEcDoPaymentService**


---

```

decision=ACCEPT
reasonCode=100
paypalEcDoPaymentReply_reasonCode=100
requestID=TN10C8B3MHS0AK3BKSGN8
requestToken=Cr dug4OkpF2Qfd8oXDD0ZE4vpp24
merchantReferenceCode=HTNsubscription9647
paypalEcDoPaymentReply_paypalBillingAgreementId=3ADOib340UWM89231f20
paypalEcDoPaymentReply_correlationID=sldkf9325sdfsdlkjgj
paypalEcDoPaymentReply_paypalToken=EC-2UN29359TV924162S
paypalEcDoPaymentReply_paypalPaymentStatus=Pending
paypalEcDoPaymentReply_transactionId=2YG99268YE540943P
paypalEcDoPaymentReply_paymentType=None
paypalEcDoPaymentReply_paypalTaxAmount=0.00
paypalEcDoPaymentReply_orderId=O-58X525738C493004E
paypalEcDoPaymentReply_paypalTransactionType=expresscheckout
paypalEcDoPaymentReply_paypalPendingReason=order
paypalEcDoPaymentReply_errorCode=93045SLWVO

```

---

**Example 9 Request for PayPalDoCaptureService**


---

```

paypalDoCaptureService_run=true
merchantID=HomeTownNewspaper
merchantReferenceNumber=HTNsubscription9647
paypalDoCaptureService_paypalEcDoPaymentRequestID=TN10C8B3MHS0AK3BKSGN8
paypalDoCaptureService_paypalEcDoPaymentRequestToken=
    Crdug4OkpF2Qfd8oXDD0ZE4vpp24
paypalDoCaptureService_completeType=Complete
paypalDoCaptureService_paypalAuthorizationId=2YG99268YE540943P
purchaseTotals_grandTotalAmount=4.99

```

---



**Example 10 Reply from PayPalDoCaptureService**


---

```

decision=ACCEPT
reasonCode=100
paypalDoCaptureReply_reasonCode=100
requestID=FY25W8N9OWC2LE7WOCBU5
requestToken=Dtely5OsoW3Pnw0mWV9x26ml135
merchantReferenceCode=HTNsubscription9647
paypalDoCaptureReply_transactionId=2SA82969X3543562X
paypalDoCaptureReply_parentTransactionId=2YG99268YE540943P
paypalDoCaptureReply_authorizationId=2YG99268YE540943P
paypalDoCaptureReply_paypalPaymentStatus=Completed
paypalDoCaptureReply_errorCode=93045SLWVO
paypalDoCaptureReply_correlationId=gwlbof9325biwflpaj
paypalDoCaptureReply_paypalPaymentType=instant
paypalDoCaptureReply_paypalPaymentGrossAmount=4.99
paypalDoCaptureReply_paypalTaxAmount=0.00
paypalDoCaptureReply_paypalFeeAmount=0.36
paypalDoCaptureReply_paypalTransactionType=expresscheckout

```

---

**Billing Agreement without Payment**

This example shows how to create a billing agreement without payment by calling these services:

- `paypalEcSetService`
- `paypalEcGetDetailsService`
- `paypalCreateAgreementService`

**Example 11 Request for paypalEcSetService**


---

```

paypalEcSetService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
purchaseTotals_currency=USD
paypalEcSetService_paypalReturn=http://www.cybersource.com
paypalEcSetService_paypalCancelReturn=http://www.cybersource.com/cancel
paypalEcSetService_paypalBillingAgreementDesc=
    Home Town Newspaper Online*4.99 per month
paypalEcSetService_paypalBillingAgreementCustom=One-year subscription
paypalEcSetService_paypalBillingType=MerchantInitiatedBilling
paypalEcSetService_paypalPaymentType=instant
purchaseTotals_grandTotalAmount=0

```

---

**Example 12 Reply from PayPalEcSetService**


---

```

decision=ACCEPT
reasonCode=100
paypalEcSetReply_reasonCode=100
requestID=1928320121920167904854
requestToken=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchantReferenceCode=HTNsubscription9647
paypalEcSetReply_correlationID=4lks03uw2lbwxu
paypalEcSetReply_paypalToken=EC-2UN29359TV924162S
paypalEcSetReply_errorCode=93045SLWVO
paypalEcSetReply_amount=0

```

---

**Example 13 Request for PayPalEcGetDetailsService**


---

```

paypalEcGetDetailsService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalEcGetDetailsService_paypalEcSetRequestID=1928320121920167904854
paypalEcGetDetailsService_paypalEcSetRequestToken=
    Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypalEcGetDetailsService_paypalToken=EC-2UN29359TV924162S

```

---

**Example 14 Reply from PayPalEcGetDetailsService**


---

```

decision=ACCEPT
reasonCode=100
paypalEcGetDetailsReply_reasonCode=100
requestID=29FJBLS93TBQPSLDGK3H
requestToken=Bxwje3Ijb7OskjK6HGG0XF3vllnoyf
merchantReferenceCode=HTNsubscription9647
paypalEcGetDetailsReply_paypalBillingAgreementAcceptedStatus=1
paypalEcGetDetailsReply_correlationID=sldkf9325sdfsdlkjgj
paypalEcGetDetailsReply_avsCode=3
paypalEcGetDetailsReply_paypalToken=EC-2UN29359TV924162S
paypalEcGetDetailsReply_errorCode=93045SLWVO
paypalEcGetDetailsReply_addressStatus=Confirmed
paypalEcGetDetailsReply_payerID=S6D5ETGSVYX94
paypalEcGetDetailsReply_payerStatus=verified
paypalEcGetDetailsReply_payerFirstname=Jane
paypalEcGetDetailsReply_payerLastname=Smith
paypalEcGetDetailsReply_payerCountry=US
paypalEcGetDetailsReply_payer=jsmith@example.com
paypalEcGetDetailsReply_shipToName=Jane Smith
paypalEcGetDetailsReply_shipToAddress1=1295 Charleston Rd.
paypalEcGetDetailsReply_shipToCity=Mountain View
paypalEcGetDetailsReply_shipToState=CA
paypalEcGetDetailsReply_shipToCountry=US
paypalEcGetDetailsReply_shipToZip=94043

```

---

**Example 15 Request for paypalCreateAgreementService**


---

```

paypalCreateAgreementService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalCreateAgreementService_
  paypalEcSetRequestID=1928320121920167904854
paypalCreateAgreementService_paypalEcSetRequestToken=
  Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypalCreateAgreementService_paypalToken=EC-2UN29359TV924162S

```

---

**Example 16 Reply from paypalCreateAgreementService**


---

```

decision=ACCEPT
reasonCode=100
paypalCreateAgreementReply_reasonCode=100
requestID=29FJBLs93TBQPSLDGK3H
requestToken=Bxwje3Ijb70skjK6HGG0XF3vllnoyf
merchantReferenceCode=HTNsubscription9647
paypalCreateAgreementReply_
  paypalBillingAgreementId=3ADOib340UWM89231f20

```

---

**Reference Transaction**

This example shows how to use a reference transaction to authorize and capture a payment by calling these services:

- paypalDoRefTransactionService
- paypalAuthorizationService
- paypalDoCaptureService

**Example 17 Request for paypalDoRefTransactionService**


---

```

paypalDoRefTransactionService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=4.99
paypalDoRefTransactionService_
  paypalBillingAgreementId=3ADOib340UWM89231f20
paypalDoRefTransactionService_paypalPaymentType=instant

```

---

**Example 18 Reply from paypalDoRefTransactionService**


---

```

decision=ACCEPT
reasonCode=100
requestID=023mbdgil2spfkjgjqdbvn
requestToken=slbiw9345BJldbodflBNQCPE1409D9k
merchantReferenceCode=HTNsubscription9647
paypalDoRefTransactionReply_reasonCode=100
paypalDoRefTransactionReply_correlationID=4lks03uw2lbwxu
paypalDoRefTransactionReply_paypalToken=EC-2UN29359TV924162S
paypalDoRefTransactionReply_errorCode=93045SLWVO
paypalDoRefTransactionReply_amount=4.99
paypalDoRefTransactionReply_currency=USD
paypalDoRefTransactionReply_paypalAmount=4.99
paypalDoRefTransactionReply_
paypalBillingAgreementId=3ADOib340UWM8923lf20
paypalDoRefTransactionReply_paypalOrderTime=2009-08-15T17:23:09Z
paypalDoRefTransactionReply_paypalPaymentStatus=Completed
paypalDoRefTransactionReply_paypalPaymentType=instant
paypalDoRefTransactionReply_paypalPendingReason=none
paypalDoRefTransactionReply_paypalReasonCode=none
paypalDoRefTransactionReply_paypalTaxAmount=0.00
paypalDoRefTransactionReply_paypalTransactionType=express-checkout
paypalDoRefTransactionReply_transactionId=htnsubw30bwlbnq2

```

---

**Example 19 Request for paypalAuthorizationService**


---

```

paypalAuthorizationService_run=true
paypalAuthorizationService_paypalOrderId=58X525738C493004E
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=4.99
paypalAuthorizationService_paypalDoRefTransactionRequestID=
  023mbdgil2spfkjgjqdbv
paypalAuthorizationService_paypalDoRefTransactionRequestToken=
  slbiw9345BJldbodflBNQCPE1409D9k
paypalAuthorizationService_paypalCustomerEmail=jsmith@example.com
billTo_email=jsmith@example.com

```

---

**Example 20 Reply from paypalAuthorizationService**


---

```

decision=ACCEPT
reasonCode=100
requestID=49gks2og0g12wrg879aergsk
requestToken=SLGQ30B235b0XCV0lskb2369awopSgm
merchantReferenceCode=HTNsubscription9647
paypalAuthorizationReply_reasonCode=100
paypalAuthorizationReply_correlationID=4lks03uw2lbwxu
paypalAuthorizationReply_errorCode=93045SLWVO
paypalAuthorizationReply_amount=4.99
paypalAuthorizationReply_currency=USD
paypalAuthorizationReply_paypalAmount=4.99
paypalAuthorizationReply_transactionId=3GT12375C398240X
paypalAuthorizationReply_orderId=58X525738C493004E

```

---

**Example 21 Request for paypalDoCaptureService**


---

```

paypalDoCaptureService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=4.99
paypalDoCaptureService_completeType=Complete
paypalDoCaptureService_paypalAuthorizationRequestID=
49gks2og0g12wrg879aergsk
paypalDoCaptureService_paypalAuthorizationRequestToken=
SLGQ30B235b0XCV0lskb2369awopSgm
paypalDoCaptureService_paypalAuthorizationId=9XT12375C2469923X

```

---

**Example 22 Reply from paypalDoCaptureService**


---

```

decision=ACCEPT
reasonCode=100
requestID=203948106391278015965
requestToken=FFv9VEdZAOGh084W7RJzIIzhUTUL
merchantReferenceCode=HTNsubscription9647
paypalDoCaptureReply_reasonCode=100
paypalDoCaptureReply_paypalPaymentType=instant
paypalDoCaptureReply_paypalPaymentGrossAmount=4.99
paypalDoCaptureReply_paypalTaxAmount=0.00
paypalDoCaptureReply_currency=USD
paypalDoCaptureReply_paypalFeeAmount=0.36
paypalDoCaptureReply_amount=4.99
paypalDoCaptureReply_paypalTransactiontype=cart
paypalDoCaptureReply_transactionId=4M8612956X2810426
paypalDoCaptureReply_parentTransactionId=9XT12375C2469923X
paypalDoCaptureReply_authorizationId=0YU23486D3570034Y
paypalDoCaptureReply_paypalPaymentStatus=Completed
paypalDoCaptureReply_correlationId=r2lvp9325sdfsdlkjgj
paypalDoCaptureReply_errorCode=sboe93045

```

---

## Cancellation

This example shows how to cancel a billing agreement by calling the **payPalUpdateAgreementService** service.

### Example 23 Request for paypalUpdateAgreementService

---

```
paypalUpdateAgreementService_run=true
merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalUpdateAgreementService_
paypalBillingAgreementID=3ADOib340UWM89231f20
paypalUpdateAgreementService_paypalBillingAgreementStatus=Canceled
```

---

### Example 24 Reply from paypalUpdateAgreementService

---

```
decision=ACCEPT
reasonCode=100
paypalUpdateAgreementReply_reasonCode=100
requestID=LRMB83bzw139b8qen
requestToken=Ydlt020bjUPZ4bwpc6937prh
merchantReferenceCode=HTNsubscription9647
paypalUpdateAgreementReply_addressStatus=Confirmed
paypalUpdateAgreementReply_payer=jsmith@example.com
paypalUpdateAgreementReply_payerBusiness=Home Town Newspaper
paypalUpdateAgreementReply_payerCountry=US
paypalUpdateAgreementReply_payerFirstname=Jane
paypalUpdateAgreementReply_payerLastname=Smith
paypalUpdateAgreementReply_payerId=S6D5ETGSVYX94
paypalUpdateAgreementReply_payerStatus=verified
paypalUpdateAgreementReply_paypalBillingAgreementCustom=
  One-year subscription
paypalUpdateAgreementReply_paypalBillingAgreementDesc=
  Home Town Newspaper Online*4.99 per month
paypalUpdateAgreementReply_
  paypalBillingAgreementID=3ADOib340UWM89231f20
paypalUpdateAgreementReply_paypalBillingAgreementStatus=Canceled
paypalUpdateAgreementReply_correlationId=41ks03uw2lbwxu
paypalUpdateAgreementReply_errorCode=93045SLWVO
```

---

## Item-Level Examples



### Note

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature.

### Example 25 Request for PayPalEcSetService

```

paypalEcSetService_run=true
merchantID=HomeTownBooks
merchantReferenceCode=HTBorder9647
purchaseTotals_currency=USD
paypalEcSetService_paypalReturn=http://www.cybersource.com
paypalEcSetService_paypalCancelReturn=http://www.cybersource.com/cancel
item_0_productCode=books
item_0_productName=Merriam-Webster Dictionary
item_0_productSKU=23456
item_0_quantity=1
item_0_unitPrice=22.00
item_0_taxAmount=1.10
item_1_productCode=books
item_1_productName=Handbook of English Grammar
item_1_productSKU=23458
item_1_quantity=1
item_1_unitPrice=24.00
item_1_taxAmount=1.20
item_2_productCode=books
item_2_productName=Roget's Thesaurus
item_2_productSKU=23450
item_2_quantity=1
item_2_unitPrice=16.00
item_2_taxAmount=0.80
item_3_productCode=coupon
item_3_productName=First-Time Buyer Coupon
item_3_productSKU=97531
item_3_quantity=1
item_3_unitPrice=5.00
item_4_productCode=shipping_and_handling
item_4_unitPrice=7.95

```

**Example 26 Reply from payPalEcSetService**

---

```
decision=ACCEPT
reasonCode=100
payPalEcSetReply_reasonCode=100
requestID=KPTRWUMC1238931sng
requestToken=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchantReferenceCode=HTBorder9647
payPalEcSetReply_paypalToken=349GJlk2jk34993
payPalEcSetReply_correlationID=5lks03uw3lawxz
payPalEcSetReply_errorCode=911245SVts0
```

---

**Example 27 Request for payPalEcGetDetailsService**

---

```
payPalEcGetDetailsService_run=true
merchantID=HomeTownBooks
merchantReferenceCode=HTBorder9647
payPalEcGetDetailsService_payPalEcSetRequestID=KPTRWUMC1238931sng
payPalEcGetDetailsService_paypalEcSetRequestToken=
    Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
payPalEcGetDetailsService_paypalToken=349GJlk2jk34993
```

---



**Example 28 Reply from paypalEcGetDetailsService**

---

```
decision=ACCEPT
reasonCode=100
paypalEcGetDetailsService_reply_reasonCode=100
requestID=RZ34980sctj2
requestToken=Bxwje3Ijb70skjK6HGG0XF3vllnoyf
merchantReferenceCode=HTBorder9647
paypalEcGetDetailsService_reply_paypalToken=349GJlk2jk34993
paypalEcGetDetailsService_reply_correlationID=6kszo3np4lbwxy
paypalEcGetDetailsService_reply_errorCode=822236PXnw3
paypalEcGetDetailsService_reply_avsCode=3
paypalEcGetDetailsService_reply_addressStatus=Confirmed
paypalEcGetDetailsService_reply_payerID=S6D5ETGSVYX94
paypalEcGetDetailsService_reply_payerStatus=verified
paypalEcGetDetailsService_reply_payerFirstname=Jane
paypalEcGetDetailsService_reply_payerLastname=Smith
paypalEcGetDetailsService_reply_payerCountry=US
paypalEcGetDetailsService_reply_payer=jsmith@example.com
paypalEcGetDetailsService_reply_shipToName=Jane Smith
paypalEcGetDetailsService_reply_shipToAddress1=1295 Charleston Rd.
paypalEcGetDetailsService_reply_shipToCity=Mountain View
paypalEcGetDetailsService_reply_shipToState=CA
paypalEcGetDetailsService_reply_shipToCountry=US
paypalEcGetDetailsService_reply_shipToZip=94043
paypalEcGetDetailsService_reply_paypalTaxAmount=3.10
item_0_productCode=default
item_0_productName=Merriam-Webster Dictionary
item_0_productSKU=23456
item_0_quantity=1
item_0_unitPrice=22.00
item_1_productCode=default
item_1_productName=Handbook of English Grammar
item_1_productSKU=23458
item_1_quantity=1
item_1_unitPrice=24.00
item_2_productCode=default
item_2_productName=Roget's Thesaurus
item_2_productSKU=23450
item_2_quantity=1
item_2_unitPrice=16.00
item_3_productCode=coupon
item_3_productName=First-Time Buyer Coupon
item_3_productSKU=97531
item_3_quantity=1
item_3_unitPrice=5.00
item_4_productCode=shipping_and_handling
item_4_unitPrice=7.95
```

---

## Transaction Search Example

### Example 29 Request for paypalTransactionSearchService

---

```

merchantID=HomeTownNewspaper
merchantReferenceCode=HTNsubscription9647
paypalTransactionSearchService_run=true
paypalTransactionSearchService_startDate=2012-09-25T18:47:13Z
paypalTransactionSearchService_endDate=2012-09-25T18:49:13Z
paypalTransactionSearchService_paypalCustomerEmail=jsmith@example.com
paypalTransactionSearchService_transactionID=93N51798SX666845X
paypalTransactionSearchService_invoiceNumber=0001529
paypalTransactionSearchService_grandTotalAmount=5.00
paypalTransactionSearchService_currency=USD
paypalTransactionSearchService_paymentStatus=Success
paypalTransactionSearchService_payerFirstname=Jane
paypalTransactionSearchService_payerLastname=Smith

```

---

### Example 30 Reply from paypalTransactionSearchService

---

```

merchantReferenceCode=HTNsubscription9647
requestID=3485988938400181552773
decision=ACCEPT
reasonCode=100
requestToken=AhjrLwSRefOhK9P3yQ0KIJp7HBMVhNPMrTnpa4sA/H2H
paypalTransactionSearchReply_reasonCode=100
paypalTransactionSearchReply_transaction_0_transactionTime=2012-09-25T18:48:11Z
paypalTransactionSearchReply_transaction_0_transactionTimeZone=GMT
paypalTransactionSearchReply_transaction_0_transactionType=Payment
paypalTransactionSearchReply_transaction_0_paypalPayerOrPayeeEmail=jsmith@example.com
paypalTransactionSearchReply_transaction_0_customerDisplayName=Jane Smith
paypalTransactionSearchReply_transaction_0_transactionID=93N51798SX666845X
paypalTransactionSearchReply_transaction_0_paypalPaymentStatus=Completed
paypalTransactionSearchReply_transaction_0_grandTotalAmount=5.00
paypalTransactionSearchReply_transaction_0_currency=USD
paypalTransactionSearchReply_transaction_0_paypalFeeAmount=-0.45
paypalTransactionSearchReply_transaction_0_paypalNetAmount=4.55
paypalTransactionSearchReply_transaction_1_transactionTime=2012-09-25T18:48:05Z
paypalTransactionSearchReply_transaction_1_transactionTimeZone=GMT
paypalTransactionSearchReply_transaction_1_transactionType=Authorization
paypalTransactionSearchReply_transaction_1_paypalPayerOrPayeeEmail=jsmith@example.com
paypalTransactionSearchReply_transaction_1_customerDisplayName=Jane Smith
paypalTransactionSearchReply_transaction_1_transactionID=8KV00008PR858651B
paypalTransactionSearchReply_transaction_1_paypalPaymentStatus=Completed
paypalTransactionSearchReply_transaction_1_grandTotalAmount=5.00
paypalTransactionSearchReply_transaction_1_currency=USD
paypalTransactionSearchReply_transaction_1_paypalFeeAmount=0.00
paypalTransactionSearchReply_transaction_1_paypalNetAmount=5.00

```

---

## XML Examples

---

### Billing Agreement Examples

#### Billing Agreement with Payment

This example shows how to create a billing agreement with payment by calling these services:

- `paypalEcSetService`
- `paypalEcGetDetailsService`
- `paypalEcDoPaymentService`
- `paypalDoCaptureService`

#### Example 31 Request for `paypalEcSetService`

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalEcSetService run="true">
    <paypalReturn>http://www.cybersource.com</paypalReturn>
    <paypalCancelReturn>http://www.cybersource.com/cancel</paypalCancelReturn>
    <paypalBillingAgreementDesc>Home Town Newspaper Online*4.99 per month
    </paypalBillingAgreementDesc>
    <paypalBillingType>MerchantInitiatedBilling</paypalBillingType>
    <paypalPaymentType>instant</paypalPaymentType>
    <paypalBillingAgreementCustom>One-year subscription
    </paypalBillingAgreementCustom>
  </paypalEcSetService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>
```

---

**Example 32 Reply from paypalEcSetService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>1928320121920167904854</c:requestID>
  <c:requestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalEcSetReply>
    <c:reasonCode>100</c:reasonCode>
    <c:correlationID>4lks03uw2lbwxu</c:correlationID>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:amount>4.99</c:amount>
  </c:paypalEcSetReply>
</c:replyMessage>

```

---

**Example 33 Request for paypalEcGetDetailsService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalEcGetDetailsService run="true">
    <paypalToken>EC-2UN29359TV924162S</paypalToken>
    <paypalEcSetRequestID>1928320121920167904854</paypalEcSetRequestID>
    <paypalEcSetRequestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
    </paypalEcSetRequestToken>
  </paypalEcGetDetailsService>
</requestMessage>

```

---

**Example 34 Reply from paypalEcGetDetailsService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>29FJBL593TBQPSLDGK3H</c:requestID>
  <c:requestToken>Bxwje3Ijb70skjK6HGG0XF3vllnoyf</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalEcGetDetailsReply>
    <c:reasonCode>100</c:reasonCode>
    <c:paypalBillingAgreementAcceptedStatus>1
      </c:paypalBillingAgreementAcceptedStatus>
    <c:correlationID>sldkf9325sdfsdlkjgj</c:correlationID>
    <c:avsCode>3</c:avsCode>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:addressStatus>Confirmed</c:addressStatus>
    <c:payerID>S6D5ETGSVYX94</c:payerID>
    <c:payerStatus>verified</c:payerStatus>
    <c:payerFirstname>Jane</c:payerFirstname>
    <c:payerLastname>Smith</c:payerLastname>
    <c:payerCountry>US</c:payerCountry>
    <c:payer>jsmith@example.com</c:payer>
    <c:shipToName>Jane Smith</c:shipToName>
    <c:shipToAddress1>1295 Charleston Rd.</c:shipToAddress1>
    <c:shipToCity>Mountain View</c:shipToCity>
    <c:shipToState>CA</c:shipToState>
    <c:shipToCountry>US</c:shipToCountry>
    <c:shipToZip>94043</c:shipToZip>
  </c:paypalEcGetDetailsReply>
</c:replyMessage>

```

---

**Example 35 Request for paypalEcDoPaymentService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalEcDoPaymentService run="true">
    <paypalToken>EC-2UN29359TV924162S</paypalToken>
    <paypalPayerId>S6D5ETGSVYX94</paypalPayerId>
    <paypalCustomerEmail>jsmith@examples.com</paypalCustomerEmail>
    <paypalEcSetRequestID>1928320121920167904854</paypalEcSetRequestID>
    <paypalEcSetRequestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
      </paypalEcSetRequestToken>
  </paypalEcDoPaymentService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>

```

---

**Example 36 Reply from paypalEcDoPaymentService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>TN10C8B3MHS0AK3BKSGN8</c:requestID>
  <c:requestToken>Cr dug4OkpF2Qfd8oXDD0ZE4vpp24</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalEcDoPaymentReply>
    <c:reasonCode>100</c:reasonCode>
    <c:paypalBillingAgreementId>3AD0ib340UWM89231f20
      </c:paypalBillingAgreementId>
    <c:correlationID>sldkf9325sdfsdlkjgj</c:correlationID>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:paypalPaymentStatus>Pending</c:paypalPaymentStatus>
    <c:transactionId>2YG99268YE540943P</c:transactionId>
    <c:paymentType>None</c:paymentType>
    <c:paypalTaxAmount>0.00</c:paypalTaxAmount>
    <c:orderId>O-58X525738C493004E</c:orderId>
    <c:paypalTransactiontype>expresscheckout</c:paypalTransactiontype>
    <c:paypalPendingReason>order</c:paypalPendingReason>
    <c:errorCode>93045SLWVO</c:errorCode>
  </c:paypalEcDoPaymentReply>
</c:replyMessage>

```

---

**Example 37 Request for paypalDoCaptureService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalDoCaptureService run="true">
    <paypalAuthorizationId>2YG99268YE540943P</paypalAuthorizationId>
    <completeType>Complete</completeType>
    <paypalEcDoPaymentRequestID>TN10C8B3MHS0AK3BKSGN8
      </paypalEcDoPaymentRequestID>
    <paypalEcDoPaymentRequestToken>Cr dug4OkpF2Qfd8oXDD0ZE4vpp24
      </paypalEcDoPaymentRequestToken>
  </paypalDoCaptureService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>

```

---

**Example 38 Reply from paypalDoCaptureService**

---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>FY25W8N9OWC2LE7WOCBU5</c:requestID>
  <c:requestToken>Dtely5OsoW3Pnw0mWVV9x26mll35</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalDoCaptureReply>
    <c:reasonCode>100</c:reasonCode>
    <c:transactionId>2SA82969X3543562X</c:transactionId>
    <c:parentTransactionId>2YG99268YE540943P</c:parentTransactionId>
    <c:authorizationId>2YG99268YE540943P</c:authorizationId>
    <c:paypalPaymentStatus>Completed</c:paypalPaymentStatus>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:correlationId>gwlbof9325biwflpaj</c:correlationId>
    <c:paypalPaymentType>instant</c:paypalPaymentType>
    <c:paypalPaymentGrossAmount>4.99</c:paypalPaymentGrossAmount>
    <c:paypalTaxAmount>0.00</c:paypalTaxAmount>
    <c:paypalFeeAmount>0.36</c:paypalFeeAmount>
    <c:paypalTransactiontype>expresscheckout</c:paypalTransactiontype>
  </c:paypalDoCaptureReply>
</c:replyMessage>
```

---

## Billing Agreement without Payment

This example shows how to create a billing agreement without payment by calling these services:

- `paypalEcSetService`
- `paypalEcGetDetailsService`
- `paypalCreateAgreementService`

### Example 39 Request for `paypalEcSetService`

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalEcSetService run="true">
    <paypalReturn>http://www.cybersource.com</paypalReturn>
    <paypalCancelReturn>http://www.cybersource.com/cancel</paypalCancelReturn>
    <paypalBillingType>MerchantInitiatedBilling</paypalBillingType>
    <paypalBillingAgreementDesc>Home Town Newspaper Online*4.99 per month
    </paypalBillingAgreementDesc>
    <paypalPaymentType>instant</paypalPaymentType>
    <paypalBillingAgreementCustom>One-year subscription
    </paypalBillingAgreementCustom>
  </paypalEcSetService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>0</grandTotalAmount>
  </purchaseTotals>
</requestMessage>
```

---

### Example 40 Reply from `paypalEcSetService`

---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>1928320121920167904854</c:requestID>
  <c:requestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalEcSetReply>
    <c:reasonCode>100</c:reasonCode>
    <c:correlationID>4lks03uw2lbwxu</c:correlationID>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:amount>0</c:amount>
  </c:paypalEcSetReply>
</c:replyMessage>
```

---



**Example 41 Request for paypalEcGetDetailsService**


---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalEcGetDetailsService run="true">
    <paypalToken>EC-2UN29359TV924162S</paypalToken>
    <paypalEcSetRequestID>1928320121920167904854</paypalEcSetRequestID>
    <paypalEcSetRequestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
      </paypalEcSetRequestToken>
    </paypalEcGetDetailsService>
  </requestMessage>
```

---

**Example 42 Reply from paypalEcGetDetailsService**


---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>29FJBL93TBQPSLDGK3H</c:requestID>
  <c:requestToken>Bxwje3Ijb70skjK6HGG0XF3vllnoyf</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalEcGetDetailsReply>
    <c:reasonCode>100</c:reasonCode>
    <c:paypalBillingAgreementAcceptedStatus>1
      </c:paypalBillingAgreementAcceptedStatus>
    <c:correlationID>sldkf9325sdfsdlkjgj</c:correlationID>
    <c:avsCode>3</c:avsCode>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:addressStatus>Confirmed</c:addressStatus>
    <c:payerID>S6D5ETGSVYX94</c:payerID>
    <c:payerStatus>verified</c:payerStatus>
    <c:payerFirstname>Jane</c:payerFirstname>
    <c:payerLastname>Smith</c:payerLastname>
    <c:payerCountry>US</c:payerCountry>
    <c:payer>jsmith@example.com</c:payer>
    <c:shipToName>Jane Smith</c:shipToName>
    <c:shipToAddress1>1295 Charleston Rd.</c:shipToAddress1>
    <c:shipToCity>Mountain View</c:shipToCity>
    <c:shipToState>CA</c:shipToState>
    <c:shipToCountry>US</c:shipToCountry>
    <c:shipToZip>94043</c:shipToZip>
  </c:paypalEcGetDetailsReply>
</c:replyMessage>
```

---

**Example 43 Request for paypalCreateAgreementService**


---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalCreateAgreementService run="true">
    <paypalToken>EC-2UN29359TV924162S</paypalToken>
    <paypalEcSetRequestID>1928320121920167904854</paypalEcSetRequestID>
    <paypalEcSetRequestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
    </paypalEcSetRequestToken>
  </paypalCreateAgreementService>
</requestMessage>
```

---

**Example 44 Reply from paypalCreateAgreementService**


---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <crequestID>29FJBLS93TBQPSLDGK3H</c:requestID>
  <c:requestToken>Bxwje3Ijb70skjK6HGG0XF3vllnoyf</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalCreateAgreementReply>
    <c:reasonCode>100</c:reasonCode>
    <c:paypalBillingAgreementId>3ADOib340UWM89231f20
    </c:paypalBillingAgreementId>
  </c:paypalCreateAgreementReply>
</c:replyMessage>
```

---

## Reference Transaction

This example shows how to use a reference transaction to authorize and capture a payment by calling these services:

- `paypalDoRefTransactionService`
- `paypalAuthorizationService`
- `paypalDoCaptureService`

### Example 45 Request for `paypalDoRefTransactionService`

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalDoRefTransactionService run="true">
    <paypalBillingAgreementId>3ADOib340UWM89231f20</paypalBillingAgreementId>
    <paypalPaymentType>instant</paypalPaymentType>
  </paypalDoRefTransactionService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>
```

---

### Example 46 Reply from `paypalDoRefTransactionService`

---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>023mbdgil2spfkjgjqdbvn</c:requestID>
  <c:requestToken>slbiw9345BJldbodflBNQCPE1409D9k</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalDoRefTransactionReply>
    <c:reasonCode>100</c:reasonCode>
    <c:correlationID>4lks03uw2lbwxu</c:correlationID>
    <c:paypalToken>EC-2UN29359TV924162S</c:paypalToken>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:amount>4.99</c:amount>
    <c:currency>USD</c:currency>
    <c:paypalAmount>4.99</c:paypalAmount>
    <c:paypalBillingAgreementId>3ADOib340UWM89231f20</c:paypalBillingAgreementId>
    <c:paypalOrderTime>2009-08-15T17:23:09Z</c:paypalOrderTime>
    <c:paypalPaymentStatus>Completed</c:paypalPaymentStatus>
    <c:paypalPaymentType>instant</c:paypalPaymentType>
    <c:paypalPendingReason>none</c:paypalPendingReason>
    <c:paypalReasonCode>none</c:paypalReasonCode>
    <c:paypalTaxAmount>0.00</c:paypalTaxAmount>
    <c:paypalTransactiontype>express-checkout</c:paypalTransactiontype>
    <c:transactionId>htnsubw30bwlbnq2</c:transactionId>
  </c:paypalDoRefTransactionReply>
</c:replyMessage>
```

---

**Example 47 Request for PayPalAuthorizationService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalAuthorizationService run="true">
    <paypalDoRefTransactionRequestID>023mbdgil2spfkjgqdbvn
    </paypalDoRefTransactionRequestID>
    <paypalDoRefTransactionRequestToken>slbiw9345BJldbodflBNQCPE1409D9k
    </paypalDoRefTransactionRequestToken>
    <paypalCustomerEmail>jsmith@example.com</paypalCustomerEmail>
  </paypalAuthorizationService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>

```

---

**Example 48 Reply from PayPalAuthorizationService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>49gks2og0g12wrg879aergsk</c:requestID>
  <c:requestToken>SLGQ30B235b0XCV0lskb2369awopSgm</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalAuthorizationReply>
    <c:reasonCode>100</c:reasonCode>
    <c:correlationID>4lks03uw2lbwxu</c:correlationID>
    <c:errorCode>93045SLWVO</c:errorCode>
    <c:amount>4.99</c:amount>
    <c:currency>USD</c:currency>
    <c:paypalAmount>4.99</c:paypalAmount>
    <c:transactionId>3GT12375C398240X</c:transactionId>
  </c:paypalAuthorizationReply>
</c:replyMessage>

```

---

**Example 49 Request for paypalDoCaptureService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalDoCaptureService run="true">
    <paypalAuthorizationId>9XT12375C2469923X</paypalAuthorizationId>
    <completeType>Complete</completeType>
    <paypalAuthorizationRequestID>49gks2og0g12wrg879aergsk
    </paypalAuthorizationRequestID>
    <paypalAuthorizationRequestToken>SLGQ30B235b0XCV0lskb2369awopSgm
    </paypalAuthorizationRequestToken>
  </paypalDoCaptureService>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>4.99</grandTotalAmount>
  </purchaseTotals>
</requestMessage>

```

---

**Example 50 Reply from paypalDoCaptureService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>203948106391278015965</c:requestID>
  <c:requestToken>FFv9VEdZAOGh084W7RJzI IzHUTUL</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalDoCaptureReply>
    <c:reasonCode>100</c:reasonCode>
    <c:correlationID>r2lvp9325sdfsdlkjgj</c:correlationID>
    <c:errorCode>sboe93045</c:errorCode>
    <c:amount>4.99</c:amount>
    <c:currency>USD</c:currency>
    <c:paypalPaymentType>instant</c:paypalPaymentType>
    <c:paypalPaymentGrossAmount>4.99</c:paypalPaymentGrossAmount>
    <c:paypalTaxAmount>0.00</c:paypalTaxAmount>
    <c:paypalFeeAmount>0.36</c:paypalFeeAmount>
    <c:paypalTransactionType>cart</c:paypalTransactionType>
    <c:transactionId>4M8612956X2810426</c:transactionId>
    <c:parentTransactionId>9XT12375C2469923X</c:parentTransactionId>
    <c:authorizationId>0YU23486D3570034Y</c:authorizationId>
    <c:paypalPaymentStatus>Completed</c:paypalPaymentStatus>
  </c:paypalDoCaptureReply>
</c:replyMessage>

```

---

## Cancellation

This example shows how to cancel a billing agreement by calling the **payPalUpdateAgreementService** service.

### Example 51 Request for paypalUpdateAgreementService

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.47">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalUpdateAgreementService run="true">
    <paypalBillingAgreementID>3ADOib340UWM89231f20</paypalBillingAgreementID>
    <paypalBillingAgreementStatus>Canceled</paypalBillingAgreementStatus>
  </paypalUpdateAgreementService>
</requestMessage>
```

---

### Example 52 Reply from paypalUpdateAgreementService

---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.47">
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestID>1928320121920167904854</c:requestID>
  <c:requestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk</c:requestToken>
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:paypalUpdateAgreementReply>
    <c:reasonCode>100</c:reasonCode>
    <c:addressStatus>Confirmed</c:addressStatus>
    <c:payer>jsmith@example.com</c:payer>
    <c:payerBusiness>Home Town Newspaper</c:payerBusiness>
    <c:payerCountry>US</c:payerCountry>
    <c:payerFirstname>Jane</c:payerFirstname>
    <c:payerLastname>Smith</c:payerLastname>
    <c:payerId>S6D5ETGSVYX94</c:payerId>
    <c:payerStatus>verified</c:payerStatus>
    <c:paypalBillingAgreementCustom>One-year subscription
      </c:paypalBillingAgreementCustom>
    <c:paypalBillingAgreementDesc>Home Town Newspaper Online*4.99 per month
      </c:paypalBillingAgreementDesc>
    <c:paypalBillingAgreementID>3ADOib340UWM89231f20</c:paypalBillingAgreementID>
    <c:paypalBillingAgreementStatus>Canceled</c:paypalBillingAgreementStatus>
    <c:correlationID>4lks03uw2lbwxu</c:correlationID>
    <c:errorCode>93045SLWVO</c:errorCode>
  </c:paypalUpdateAgreementReply>
</c:replyMessage>
```

---

## Item-Level Examples



### Note

To enable item-level fields, contact CyberSource Customer Support to have your account configured for this feature.

### Example 53 Request for payPalEcSetService

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.72">
  <merchantID>HomeTownBooks</merchantID>
  <merchantReferenceCode>HTBorder9647</merchantReferenceCode>
  <item id="0">
    <unitPrice>22.00</unitPrice>
    <quantity>1</quantity>
    <productCode>books</productCode>
    <productName>Merriam-Webster Dictionary</productName>
    <productSKU>23456</productSKU>
    <taxAmount>1.10</taxAmount>
  </item>
  <item id="1">
    <unitPrice>24.00</unitPrice>
    <quantity>1</quantity>
    <productCode>books</productCode>
    <productName>Handbook of English Grammar</productName>
    <productSKU>23458</productSKU>
    <taxAmount>1.20</taxAmount>
  </item>
  <item id="2">
    <unitPrice>16.00</unitPrice>
    <quantity>1</quantity>
    <productCode>books</productCode>
    <productName>Roget's Thesaurus</productName>
    <productSKU>23450</productSKU>
    <taxAmount>0.80</taxAmount>
  </item>
  <item id="3">
    <unitPrice>5.00</unitPrice>
    <quantity>1</quantity>
    <productCode>coupon</productCode>
    <productName>First-Time Buyer Coupon</productName>
    <productSKU>97531</productSKU>
  </item>
  <item id="4">
    <unitPrice>7.95</unitPrice>
    <productCode>shipping_and_handling</productCode>
  </item>
  <purchaseTotals><currency>USD</currency></purchaseTotals>
  <payPalEcSetService run="true">
    <paypalReturn>http://www.cybersource.com</paypalReturn>
    <paypalCancelReturn>http://www.cybersource.com/cancel</paypalCancelReturn>
  </payPalEcSetService>
</requestMessage>
```

**Example 54 Reply from paypalEcSetService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.72">
  <c:merchantReferenceCode>HTBorder9647</c:merchantReferenceCode>
  <c:requestID>KPTRWUMC123893lsng</c:requestID>
  <c:requestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk</c:requestToken>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paypalEcSetReply>
    <c:reasonCode>100</c:reasonCode>
    <c:paypalToken>349GJlk2jk34993</c:paypalToken>
    <c:correlationID>5lks03uw3lawxz</c:correlationID>
    <c:errorCode>911245SVtsO</c:errorCode>
  </c:paypalEcSetReply>
</c:replyMessage>

```

---

**Example 55 Request for paypalEcGetDetailsService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.78">
  <merchantID>HomeTownBooks</merchantID>
  <merchantReferenceCode>HTBorder9647</merchantReferenceCode>
  <paypalEcGetDetailsService run="true">
    <paypalToken>349GJlk2jk34993</paypalToken>
    <paypalEcSetRequestID>KPTRWUMC123893lsng</paypalEcSetRequestID>
    <paypalEcSetRequestToken>Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
      </paypalEcSetRequestToken>
  </paypalEcGetDetailsService>
</requestMessage>

```

---



**Example 56 Reply from PayPalEcGetDetailsService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.78">
  <c:merchantReferenceCode>HTBorder9647</c:merchantReferenceCode>
  <c:requestID>RZ34980sctj2</c:requestID>
  <c:requestToken>Bxwje3Ijb7OskjK6HGG0XF3vllnoyf</c:requestToken>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <item id="0">
    <unitPrice>22.00</unitPrice>
    <quantity>1</quantity>
    <productCode>default</productCode>
    <productName>Merriam-Webster Dictionary</productName>
    <productSKU>23456</productSKU>
  </item>
  <item id="1">
    <unitPrice>24.00</unitPrice>
    <quantity>1</quantity>
    <productCode>default</productCode>
    <productName>Handbook of English Grammar</productName>
    <productSKU>23458</productSKU>
  </item>
  <item id="2">
    <unitPrice>16.00</unitPrice>
    <quantity>1</quantity>
    <productCode>default</productCode>
    <productName>Roget's Thesaurus</productName>
    <productSKU>23450</productSKU>
  </item>
  <item id="3">
    <unitPrice>5.00</unitPrice>
    <quantity>1</quantity>
    <productCode>coupon</productCode>
    <productName>First-Time Buyer Coupon</productName>
    <productSKU>97531</productSKU>
  </item>
  <item id="4">
    <unitPrice>7.95</unitPrice>
    <productCode>shipping_and_handling</productCode>
  </item>
<c:paypalEcGetDetailsReply>
  <c:reasonCode>100</c:reasonCode>
  <c:paypalToken>349GJlk2jk34993</c:paypalToken>
  <c:payer>jsmith@example.com</c:payer>
  <c:payerID>S6D5ETGSVYX94</c:payerID>
  <c:payerStatus>verified</c:payerStatus>
  <c:payerFirstname>Jane</c:payerFirstname>

```

**Example 56 Reply from paypalEcGetDetailsService (Continued)**


---

```

    <c:payerLastname>Smith</c:payerLastname>
    <c:payerCountry>US</c:payerCountry>
    <c:shipToName>Jane Smith</c:shipToName>
    <c:shipToAddress1>1295 Charleston Rd.</c:shipToAddress1>
    <c:shipToCity>Mountain View</c:shipToCity>
    <c:shipToState>CA</c:shipToState>
    <c:shipToCountry>US</c:shipToCountry>
    <c:shipToZip>94043</c:shipToZip>
    <c:addressStatus>Confirmed</c:addressStatus>
    <c:avsCode>3</c:avsCode>
    <c:correlationID>6kszo3np4lbwxy</c:correlationID>
    <c:errorCode>822236PXnw3</c:errorCode>
    <c:paypalTaxAmount>3.10</c:paypalTaxAmount>
  </c:paypalEcSetReply>
</c:replyMessage>

```

---

## Transaction Search Example

**Example 57 Request for paypalTransactionSearchService**


---

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.78">
  <merchantID>HomeTownNewspaper</merchantID>
  <merchantReferenceCode>HTNsubscription9647</merchantReferenceCode>
  <paypalTransactionSearchService run="true">
    <startDate>2012-09-25T18:47:13Z</startDate>
    <endDate>2012-09-25T18:49:13Z</endDate>
    <paypalCustomerEmail>jsmith@example.com</paypalCustomerEmail>
    <transactionID>93N51798SX666845X</transactionID>
    <invoiceNumber>0001529</invoiceNumber>
    <grandTotalAmount>5.00</grandTotalAmount>
    <currency>USD</currency>
    <paymentStatus>Success</paymentStatus>
    <payerFirstname>Jane</payerFirstname>
    <payerLastname>Smith</payerLastname>
  </paypalTransactionSearchService>
</requestMessage>

```

---

**Example 58 Reply from paypalTransactionSearchService**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.78">
  <c:merchantReferenceCode>HTNsubscription9647</c:merchantReferenceCode>
  <c:requestID>3485988938400181552773</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestToken>AhjrLwSRefOhK9P3yQ0KIJp7HBMVhNPMrTnpa4sA/H2H</c:requestToken>
  <c:paypalTransactionSearchReply>
    <c:reasonCode>100</c:reasonCode>
    <c:transaction id="0">
      <c:transactionTime>2012-09-25T18:48:11Z</c:transactionTime>
      <c:transactionTimeZone>GMT</c:transactionTimeZone>
      <c:transactionType>Payment</c:transactionType>
      <c:paypalPayerOrPayeeEmail>jsmith@example.com</c:paypalPayerOrPayeeEmail>
      <c:customerDisplayName>Jane Smith</c:customerDisplayName>
      <c:transactionID>93N51798SX666845X</c:transactionID>
      <c:paypalPaymentStatus>Completed</c:paypalPaymentStatus>
      <c:grandTotalAmount>5.00</c:grandTotalAmount>
      <c:currency>USD</c:currency>
      <c:paypalFeeAmount>-0.45</c:paypalFeeAmount>
      <c:paypalNetAmount>4.55</c:paypalNetAmount>
    </c:transaction>
    <c:transaction id="1">
      <c:transactionTime>2012-09-25T18:48:05Z</c:transactionTime>
      <c:transactionTimeZone>GMT</c:transactionTimeZone>
      <c:transactionType>Authorization</c:transactionType>
      <c:paypalPayerOrPayeeEmail>jsmith@example.com</c:paypalPayerOrPayeeEmail>
      <c:customerDisplayName>Jane Smith</c:customerDisplayName>
      <c:transactionID>8KV00008PR858651B</c:transactionID>
      <c:paypalPaymentStatus>Completed</c:paypalPaymentStatus>
      <c:grandTotalAmount>5.00</c:grandTotalAmount>
      <c:currency>USD</c:currency>
      <c:paypalFeeAmount>0.00</c:paypalFeeAmount>
      <c:paypalNetAmount>5.00</c:paypalNetAmount>
    </c:transaction>
  </c:paypalTransactionSearchReply>
</c:replyMessage>

```

---

# Currency Codes

The following currency codes are supported for PayPal Express Checkout.



### Note

PayPal can add currencies at any time. For an up-to-date list of currencies supported by PayPal, contact your PayPal representative.



### Important

To request transactions in currencies other than CNY for customers located in China, contact CyberSource Customer Support to have your account configured for this functionality.

**Table 20** Currency Codes

Currency Code	Currency
AUD	Australian dollar
CAD	Canadian dollar
CHF	Swiss franc
CNY	Chinese yuan renminbi
CZK	Czech koruna
DKK	Danish krone
EUR	Euro
GBP	British pound sterling
HKD	Hong Kong dollar
HUF	Hungarian forint
JPY	Japanese yen
NOK	Norwegian krone
NZD	New Zealand dollar
PLN	Polish zloty
SEK	Swedish krona
SGD	Singapore dollar
USD (default)	United States dollar

# Product Codes

The following table lists the values you can use for the product code in the `item_#_productCode` request field.

**Table 21 Product Codes**

Product Code	Definition
coupon	Coupon applied to the entire order.
default	Use this value when none of the other values apply.
handling_only	Fee that you charge your customer to cover your administrative selling costs.
shipping_and_handling	The shipping portion is the charge for shipping the product to your customer. The handling portion is the fee you charge your customer to cover your administrative selling costs.
shipping_only	Charge for transporting tangible personal property from your location to your customer. You must maintain documentation that clearly establishes the location where the title to the property passed from you to your customer.

# Reason Codes

The following table lists the PayPal Express Checkout reason codes returned by the Simple Order API. See the information about handling replies in [Getting Started with CyberSource Advanced for the Simple Order API](#) for a discussion of replies and reason codes.



### Important

Because CyberSource can add reply fields and reason codes at any time, do the following:

- Parse the reply data according to the names of the fields instead of their order in the reply. For more information about parsing reply fields, see the documentation for your client.
- Program your error handler to use the **decision** field to determine the result if it receives a reason code that it does not recognize.

**Table 22 Reason Codes**

Reason Code	Description
100	Successful transaction.
101	The request is missing one or more required fields.  Possible action: See the reply fields <b>missingField_0...N</b> for which fields are missing. Resend the request with the complete information. See the information about missing and invalid fields in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> .
102	One or more fields in the request contains invalid data.  Possible action: See the reply fields <b>invalidField_0...N</b> for which fields are invalid. Resend the request with the correct information. See the information about missing and invalid fields in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> .
150	General system failure.  See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.

Table 22 Reason Codes (Continued)

Reason Code	Description
151	<p>The request was received but there was a server timeout. This error does not include timeouts between the client and the server.</p> <p>Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.</p>
223	PayPal rejected the transaction.
233	<p>General decline by PayPal.</p> <p>Possible action: request that the customer select a different form of payment at the PayPal web site.</p>
234	<p>There is a problem with your CyberSource merchant configuration.</p> <p>Possible action: do not resend the request. Contact Customer Support to correct the configuration problem.</p>
238	PayPal rejected the transaction. A successful transaction was already completed for this <b>paypalToken</b> value.
387	Your call to <b>paypalEcDoPaymentService</b> failed. CyberSource successfully set up the order with PayPal, but the authorization functionality failed.

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