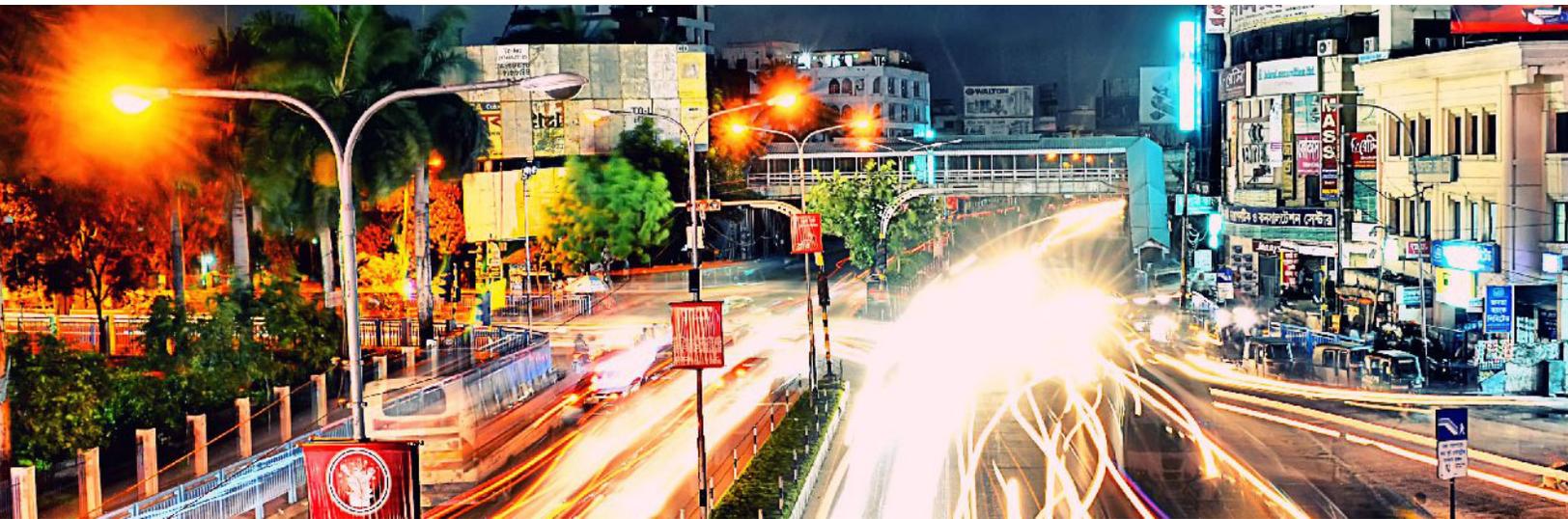


PayPal Express Checkout Services

Using the SCMP API

*The PayPal Express Service is no longer supported by CyberSource.
This guide is for reference by existing customers only.*



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Cybersource Contact Information

For general information about our company, products, and services, go to <http://www.cybersource.com>.

For sales questions about any Cybersource service, email sales@cybersource.com or call 650-432-7350 or 888-330-2300 (toll free in the United States).

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Revision: February 2021

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Recent Revisions to This Document

Release	Changes
February 2021	Added customer_ipaddress (SCMP) and billTo_ipAddress (SO).
June 2020	Labeled the cover and copyright page with this statement: "The PayPal Express Service is no longer supported by Cybersource. This guide is for reference by existing customers only."
May 2017	This revision contains only editorial changes and no technical updates.
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	Updated the field length for payer_business in "Order-Level Reply Fields," page 58 .
October 2015	Added information about integration for the In-Context Express Checkout flow. See "PayPal Express Checkout Flows," page 13 .
June 2015	Added information about In-Context Express Checkout. See "Introduction to PayPal Express Checkout," page 9 , and "Redirection URLs," page 24 .
September 2014	<ul style="list-style-type: none"> ■ Corrected field name transaction_id to paypal_transaction_id throughout the guide. ■ Removed reference to PayPal version number from the paypal_lc API request field. See paypal_lc, page 48. ■ Added bill fields to "Payment Service," page 27, "Authorization Service," page 29, and "Order-Level Request Fields," page 40. These fields are required only when Decision Manager is enabled.

About This Guide

Audience

This guide is written for application developers who want to use the Cybersource SCMP 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

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

Conventions

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.

The following text conventions are used in this document:

Table 1 Text Conventions

Convention	Meaning
boldface	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

- *Getting Started with Cybersource Advanced for the SCMP API* ([PDF](#) | [HTML](#)) describes how to get started using the SCMP API.
- The *Classic 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

Customer Support

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.



PayPal Express Checkout is not supported on an iFrame integration.

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 Checkout with PayPal button on your checkout page.
Payment	Place the PayPal 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 SCMP API](#).
- Contact Cybersource Customer Support to configure your Cybersource account.

- 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.

PayPal Express Checkout Flows

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.

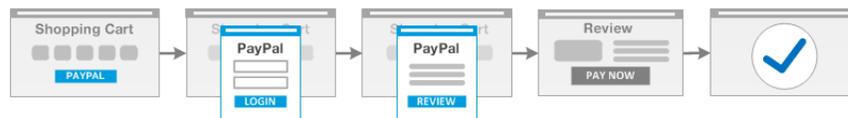
The redirection URL controls the customer experience. For more information, see ["Redirection URLs," page 24](#).

In-Context Express Checkout Flow

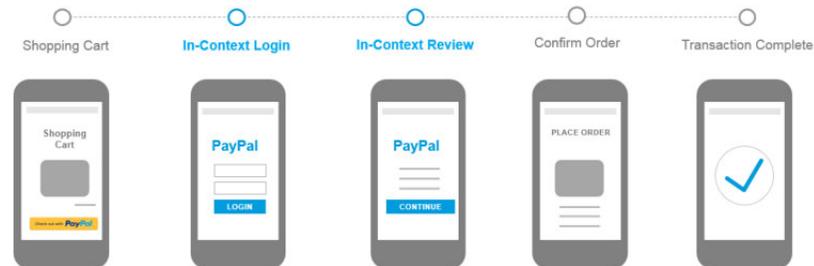
When your customer is ready to pay for the products selected from your web site:

- 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 24](#).

PayPal Express Checkout Orders

Table 4 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



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 5 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 6 Service Calls for a Custom Order

For an Immediate Partial Sale	For a Delayed Authorization	For a Delayed Capture
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 7 Service Call Examples for Custom Orders

For a Delayed Authorization	For a Delayed Capture
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 8 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 9 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"> ■ For a regular order, sale, or immediate partial sale, simply call the Reversal service. ■ For a delayed authorization or delayed capture, you can reverse an authorization or an order setup. <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"> ■ For a regular order, sale, or immediate partial sale, simply call the Refund service. ■ For a delayed authorization or delayed capture, you need to specify which capture to credit.
Reauthorization	<p>To reauthorize a transaction:</p> <ol style="list-style-type: none"> 1 Reverse the authorization. 2 Perform a new authorization using the order ID.

Table 9 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. Note 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 10 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 " Transaction Search Service ," page 35 and " Get Transaction Details Service ," page 37 .
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"> ■ Payment Batch Detail Report ■ Payment Batch Summary Report ■ Payment Submission Detail Report <p>The Payment Batch Detail Report and Payment Submission Detail Report are described in the Classic Reporting Developer Guide. 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 10 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 11 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 http://www.paypal.com/cgi-bin/webscr?cmd=p/gen/buyer-complaint-outside .
Seller Protection Policy	Cybersource supports the following Seller Protection Policy levels: <ul style="list-style-type: none"> ■ Eligible: you are protected for unauthorized payments and items not received. ■ Partially eligible: you are protected for items not received. ■ Ineligible: you are not protected. PayPal offers additional features that are not currently supported by Cybersource. See https://www.paypal.com/cgi-bin/webscr?cmd=xpt/cps/securitycenter/sell/SellerPPOverview-outside .

Order Tracking

For general information about order tracking, see [Getting Started with Cybersource Advanced for the SCMP 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 **request_id**.

Request IDs in Request Messages

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

Table 12 Request IDs in Request Messages

Service	Field Names
Set	paypal_ec_set_request_id
Get Details	paypal_ec_set_request_id
Do Payment	paypal_ec_set_request_id
Do Capture	For a standard order: paypal_ec_do_payment_request_id For a custom order: paypal_authorization_request_id
Order Setup	paypal_ec_set_request_id
Authorization	For a custom order: paypal_ec_order_setup_request_id For a billing agreement: paypal_do_ref_transaction_request_id

Table 12 Request IDs in Request Messages (Continued)

Service	Field Names
Create Agreement	paypal_ec_set_request_id
Authorization Reversal	For a standard order: paypal_ec_do_payment_request_id For a custom order when reversing an order setup: paypal_ec_order_setup_request_id For a custom order when reversing an authorization: paypal_authorization_request_id
Refund	paypal_do_capture_request_id

Requesting Services



The SCMP API is Cybersource's older, legacy API. If you are just beginning an implementation with Cybersource, you should use the Simple Order API instead of the SCMP API.

Table 13 Request Services

Group	For a Delayed Authorization	For a Delayed Capture
Standard Orders	Set Service	ics_paypal_ec_set
	Get Details Service	ics_paypal_ec_get_details
	Payment Service	ics_paypal_ec_do_payment
	Capture Service	ics_paypal_do_capture
	Sale Service	Multiple services
Custom Orders	Set Service	ics_paypal_ec_set
	Get Details Service	ics_paypal_ec_get_details
	Order Setup Service	ics_paypal_ec_order_setup
	Authorization Service	ics_paypal_authorization
	Capture Service	ics_paypal_do_capture
Billing Agreements	Set Service	ics_paypal_ec_set
	Get Details Service	ics_paypal_ec_get_details
	Payment Service	ics_paypal_ec_do_payment
	Capture Service	ics_paypal_do_capture
	Create Agreement Service	ics_paypal_create_agreement
	Reference Transaction Service	ics_paypal_do_ref_transaction
Additional Services	Authorization Service	ics_paypal_authorization
	Authorization Reversal Service	ics_paypal_auth_reversal
	Refund Service	ics_paypal_refund
	Reauthorization Service	Multiple services
	Cancellation Service	ics_paypal_update_agreement
	Transaction Search Service	ics_paypal_transaction_search
	Get Transaction Details Service	ics_paypal_get_txn_details

Set Service

The `ics_paypal_ec_set` service:

- Alerts PayPal that an order is going to occur.
- Returns a session token.

After `ics_paypal_ec_set` 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 Traditional Express Checkout and In-Context Express Checkout, see "[In-Context Express Checkout Flow](#)," page 14.

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 **paypal_return**. If the customer cancels the transaction, the customer is redirected to the return URL in the field **paypal_cancel_return**.



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



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



After each call to **ics_paypal_ec_set**, 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 **ics_paypal_ec_set**, you must include the following fields in the request:

- ics_applications
- merchant_id
- merchant_ref_number
- currency
- grand_total_amount or at least one offer line with an **amount** field



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

- paypal_return
- paypal_cancel_return

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

- paypal_ec_set_request_id
- paypal_ec_set_request_token

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

- paypal_billing_type (required)
- paypal_billing_agreement_desc (optional)
- paypal_billing_agreement_custom (optional)
- paypal_payment_type (optional)

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Get Details Service



The **ics_paypal_ec_get_details** service 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 **ics_paypal_ec_get_details** even if you do not allow customers to change their shipping addresses.

The **ics_paypal_ec_get_details** service:

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

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

- paypal_ec_get_details_address1
- paypal_ec_get_details_address2
- paypal_ec_get_details_city
- paypal_ec_get_details_state
- paypal_ec_get_details_zip
- paypal_ec_get_details_country_code
- paypal_ec_get_details_country_name
- paypal_ec_get_details_address_id

To receive these values, you must 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 **paypal_request_billing_address** to 1 in your request for **ics_paypal_ec_set**.

If you included offer-level fields in your request for the **ics_paypal_ec_set** service, the **ics_paypal_ec_get_details** service returns offer-level fields in the reply message. These fields are described in ["Offer-Level Reply Fields," page 71](#).



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

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

- **ics_applications**
- **merchant_id**
- **merchant_ref_number**
- **paypal_ec_set_request_id**
- **paypal_ec_set_request_token**
- **paypal_token**

These fields are described in [Appendix A, "API Fields," on page 39](#).

Payment Service



The **ics_paypal_ec_do_payment** service is used only for standard orders.

The **ics_paypal_ec_do_payment** 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 Do Payment service sets an authorization as an embedded payment action parameter in the third API call. When you use the Do 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 **ics_paypal_ec_do_payment**, you must include the following fields in the request:

- ics_applications
- merchant_id
- merchant_ref_number
- currency
- grand_total_amount or at least one offer line with an **amount** field



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

- paypal_customer_email
- paypal_ec_set_request_id
- paypal_ec_set_request_token
- paypal_payer_id
- paypal_token

The following fields are required only if Decision Manager is enabled:

- bill_address1
- bill_city
- bill_country
- bill_state—required only when the country is US or Canada.
- bill_zip—required only when the country is US or Canada.

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Order Setup Service



The **ics_paypal_ec_order_setup** service is used only for custom orders.

The **ics_paypal_ec_order_setup** service:

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

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

- ics_applications
- merchant_id
- merchant_ref_number
- currency
- grand_total_amount or at least one offer line with an **amount** field



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

- paypal_customer_email
- paypal_ec_set_request_id
- paypal_ec_set_request_token
- paypal_payer_id
- paypal_token

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Authorization Service

The **ics_paypal_authorization** 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 **ics_paypal_authorization**, you must include the following fields in the request:

- ics_applications
- merchant_id
- paypal_order_id
- merchant_ref_number
- currency
- grand_total_amount

- paypal_customer_email
- customer_email
- A request ID:
 - For a custom order: paypal_ec_order_setup_request_id
 - For a billing agreement: paypal_do_ref_transaction_request_id
- A request token:
 - For a custom order: paypal_ec_order_setup_request_token
 - For a billing agreement: paypal_do_ref_transaction_request_token

The following fields are required only if Decision Manager is enabled:

- bill_address1
- bill_city
- bill_country
- bill_state—required only when the country is US or Canada.
- bill_zip—required only when the country is US or Canada.

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Capture Service



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

The **ics_paypal_do_capture** 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 **ics_paypal_do_capture**, you must include the following fields in the request:

- ics_applications
- merchant_id
- merchant_ref_number
- complete_type—This flag indicates whether it is a full capture or a partial capture.
- currency
- grand_total_amount
- paypal_authorization_id

- A request ID:
 - For a standard order: `paypal_ec_do_payment_request_id`
 - For a custom order: `paypal_authorization_request_id`
- A request token:
 - For a standard order: `paypal_ec_do_payment_request_token`
 - For a custom order: `paypal_authorization_request_token`

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Sale Service

A sale consists of calling `ics_paypal_ec_do_payment` and `ics_paypal_do_capture` in the same request. The sale:

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

When you request `ics_paypal_ec_do_payment` and `ics_paypal_do_capture` in the same request, you must include the following fields in the request:

- `ics_applications`
- `merchant_id`
- `merchant_ref_number`
- `complete_type`
- `currency`
- `grand_total_amount` or at least one offer line with an **amount** field



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

- `paypal_customer_email`
- `paypal_ec_set_request_id`
- `paypal_ec_set_request_token`
- `paypal_payer_id`
- `paypal_token`

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Create Agreement Service

The **ics_paypal_create_agreement** service:

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

Before calling **ics_paypal_create_agreement**:

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

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

- ics_applications
- merchant_id
- merchant_ref_number
- paypal_token
- paypal_ec_set_request_id
- paypal_ec_set_request_token

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Reference Transaction Service

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

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

- ics_applications
- merchant_id
- merchant_ref_number
- grand_total_amount or at least one offer line with an **amount** field



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

- currency

- paypal_billing_agreement_id
- paypal_payment_type

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Authorization Reversal Service



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

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

- ics_paypal_ec_do_payment
- ics_paypal_ec_order_setup
- ics_paypal_authorization

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

- ics_applications
- merchant_id
- merchant_ref_number
- paypal_authorization_id
- A request ID:
 - For a standard order:
paypal_ec_do_payment_request_id
 - For a custom order when reversing an order setup:
paypal_ec_order_setup_request_id
 - For a custom order when reversing an authorization:
paypal_authorization_request_id
- A request token:
 - For a standard order:
paypal_ec_do_payment_request_token
 - For a custom order when reversing an order setup:
paypal_ec_order_setup_request_token
 - For a custom order when reversing an authorization:
paypal_authorization_request_token

These fields are described in [Appendix A, "API Fields," on page 39](#).

Refund Service

The **ics_paypal_refund** service:

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

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

- **ics_applications**
- **merchant_id**
- **merchant_ref_number**
- **grand_total_amount**—The amount of the refund determines if it is a full refund or a partial refund.
- **paypal_capture_id**
- **paypal_do_capture_request_id**—This value determines which capture will be refunded.
- **paypal_do_capture_request_token**

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

Reauthorization Service

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

To perform a reauthorization:

Step 1 Call **ics_paypal_auth_reversal**.

Step 2 Call **ics_paypal_ec_do_payment** for a standard order or call **ics_paypal_authorization** for a custom order.

Cancellation Service

The **ics_paypal_update_agreement** service cancels a billing agreement.

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

- ics_applications
- merchant_id
- merchant_ref_number
- paypal_billing_agreement_id
- paypal_billing_agreement_status

Additional fields are optional. The required and optional fields are described in [Appendix A, "API Fields," on page 39](#).

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 12](#).

The **ics_paypal_transaction_search** 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 **ics_paypal_transaction_search**, you must include the following fields in the request:

- ics_applications
- merchant_id
- merchant_ref_number
- paypal_transaction_search_start_date

- Fields for one or more of the search criteria in the following table:

Table 14 Transaction Search Criteria

Criteria	Field Name
Customer's email address	paypal_customer_email
Customer's name: salutation	payer_salutation
Customer's name: first name	payer_firstname
Customer's name: middle name	payer_middlename
Customer's name: last name	payer_lastname
Customer's name: suffix	payer_suffix
Date range	paypal_transaction_search_end_date The start date is specified in paypal_transaction_search_start_date , which is a required field for this service.
Invoice number	paypal_invoice_number
Payment status	paypal_payment_status
Receipt ID	paypal_receipt_id
Transaction amount	grand_total_amount
Transaction currency	currency
Transaction ID	transaction_id

These fields are described in [Appendix A, "API Fields," on page 39](#).

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 12](#).

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

- ics_paypal_ec_do_payment
- ics_paypal_ec_order_setup
- ics_paypal_authorization
- ics_paypal_do_capture
- ics_paypal_refund
- ics_paypal_do_ref_transaction

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

- ics_applications
- merchant_id
- merchant_ref_number
- paypal_transaction_id

These fields are described in [Appendix A, "API Fields,"](#) on [page 39](#).

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 offers for which the product code is not `handling_only`, `shipping_and_handling`, or `shipping_only`.
- 2 Multiplies quantity * amount for each offer identified in step 1.
- 3 Adds the values that were calculated in step 2.

Example 1 Offers That Cause PayPal to Decline a Transaction

```
offer0=amount:10.00^quantity:1^product_code:Beverages^product_
name:Fancy Cola^merchant_product_sku:B4859^tax_amount:10^product_
description:Description for Fancy Cola!

offer1=amount:5.00^product_code=shipping_only

offer2=amount:10.00^quantity:1^product_code:coupon^product_
name:Discount^merchant_product_sku:D1000^product_description:1000th
customer discount
```

API Fields

Formatting Restrictions

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

Order-level and offer-level field names and values must not contain carets (^) or colons (:). However, they can contain embedded spaces and any other printable characters. If you use more than one consecutive space, the extra 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](#).

Table 15 Data Type Definitions

Data Type	Description
Date and time	Format is YYYY-MM-DDThhmmssZ, where: <ul style="list-style-type: none"> ■ T separates the date and the time ■ Z indicates Coordinated Universal Time (UTC), also known as Greenwich Mean Time (GMT) Example 2020-01-11T224757Z equals January 11, 2020, at 22:47:57 (10:47:57 p.m.)
Decimal	Number that includes a decimal point Example 23.45, -0.1, 4.0, 90809.0468
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
Nonnegative integer	Whole number greater than or equal to zero {0, 1, 2, 3, ...}
Positive integer	Whole number greater than zero {1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Request Fields

Order-Level Request Fields



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

Table 16 Order-Level Request Fields

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
bill_address1	Credit card billing street address as it appears in the credit card issuer's records.	ics_paypal_ authorization ics_paypal_do_capture Required only when Decision Manager is enabled.	String (60)
bill_city	Credit card billing city.	ics_paypal_ authorization ics_paypal_do_capture Required only when Decision Manager is enabled.	String (50)
bill_country	Credit card billing country. Use the two-character ISO Standard Country Codes .	ics_paypal_ authorization ics_paypal_do_capture Required only when Decision Manager is enabled.	String (2)
bill_state	Credit card billing state or province. Use the State, Province, and Territory Codes for the United States and Canada .	ics_paypal_ authorization ics_paypal_do_capture Required only when Decision Manager is enabled AND the country is US or Canada.	String (2)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
bill_zip	<p>Postal code for the billing address. The postal code must consist of 5 to 9 digits.</p> <p>When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p>	<p>ics_paypal_ authorization</p> <p>ics_paypal_do_capture</p> <p>Required only when Decision Manager is enabled AND the country is US or Canada.</p>	String (10)
customer_email	Customer's email address.	ics_paypal_ authorization (R)	String (256)
customer_ipaddress	Customer's IP address.	ics_paypal_ authorization (O)	String (45)
complete_type	<p>Indicates whether this is a partial capture or a complete capture. Possible values:</p> <ul style="list-style-type: none"> ■ Complete: Complete capture ■ NotComplete: Partial capture 	ics_paypal_do_capture (R)	String (12)
currency	<p>Currency code for one of the PayPal transactional currencies. See Appendix C, "Currency Codes," on page 110.</p> <p>Note PayPal can add currencies at any time. For an up-to- list of currencies supported by PayPal, contact your PayPal representative.</p> <p>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.</p>	<p>ics_paypal_ec_set (R)</p> <p>ics_paypal_ec_do_ payment (R)</p> <p>ics_paypal_ec_order_ setup (R)</p> <p>ics_paypal_ authorization (R)</p> <p>ics_paypal_do_capture (R)</p> <p>ics_paypal_do_ref_ transaction (R)</p> <p>ics_paypal_ transaction_search (O)</p>	String (3)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
grand_total_amount	<p>Grand total for the order. If shipping costs and tax charges are known, include them in this value. If not, 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 ics_paypal_ec_set, ics_paypal_ec_do_payment, ics_paypal_ec_order_setup, and ics_paypal_do_ref_transaction, the request must include either this field or offer0 and the offer-level field amount. See the information about offers and grand totals in Getting Started with Cybersource Advanced for the SCMP API.</p> <p>Format:</p> <ul style="list-style-type: none"> ■ Cannot include a currency symbol ■ Must include two decimal places ■ The decimal separator must be a period (.) 	<p>ics_paypal_ec_set (See description)</p> <p>ics_paypal_ec_do_payment (See description)</p> <p>ics_paypal_ec_order_setup (See description)</p> <p>ics_paypal_authorization (R)</p> <p>ics_paypal_do_capture (R)</p> <p>ics_paypal_refund (R)</p> <p>ics_paypal_do_ref_transaction (See description)</p> <p>ics_paypal_transaction_search (O)</p>	String (15)
ics_applications	ICS services to process for the request. At least one service must be specified in the request.	Required for all PayPal Express Checkout Services	String (255)
link_to_request	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 Credit Card Services Using the SCMP API (PDF HTML) .	String (26)	String (30)
merchant_id	Your Cybersource merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required for all PayPal Express Checkout Services	String (30)
merchant_ref_number	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 Getting Started with Cybersource Advanced for the SCMP API .	Required for all PayPal Express Checkout Services	String (50)
payer_firstname	Customer’s first name.	ics_paypal_transaction_search (O)	String (25)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
payer_lastname	Customer's last name.	ics_paypal_ transaction_search (O)	String (25)
payer_middlename	Customer's middle name.	ics_paypal_ transaction_search (O)	String (25)
payer_salutation	Customer's salutation.	ics_paypal_ transaction_search (O)	String (20)
payer_suffix	Customer's suffix.	ics_paypal_ transaction_search (O)	String (12)
paypal_address_ override	<p>Customer-supplied address sent in the SetExpressCheckout request rather than the address on file with PayPal for this customer.</p> <p>Note You can use this field only with the payment method, not with the shortcut method. See Chapter 1, "Introduction to PayPal Express Checkout," on page 9, for a description of the PayPal methods.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ 1: Display the customer-supplied address. ■ 0 (default): Display the address on file with PayPal. The customer cannot edit this address. 	ics_paypal_ec_set (O) ics_paypal_ec_do_ payment (O)	String (1)
paypal_authorization_id	Unique PayPal authorization identification number returned in the authorization reply paypal_authorization_transaction_id field.	ics_paypal_do_capture (R) ics_paypal_auth_reversal (R)	String (19)
paypal_authorization_request_id	<p>Value of request_id returned from a previous request for ics_paypal_authorization. This is the request_id 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>	ics_paypal_do_capture (See description) ics_paypal_auth_reversal (See description)	String (26)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_authorization_request_token	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. 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.	ics_paypal_do_capture (R) ics_paypal_auth_reversal (R)	String (256)
paypal_billing_agreement_custom	Custom annotation field for your own use.	ics_paypal_ec_set (O for billing agreements; otherwise, not used) ics_paypal_update_agreement (O)	String (256)
paypal_billing_agreement_desc	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. Example 9.99 per month for 2 years.	ics_paypal_ec_set (O for billing agreements; otherwise, not used) ics_paypal_update_agreement (O)	String (127)
paypal_billing_agreement_id	Identifier for the billing agreement.	ics_paypal_update_agreement (R) ics_paypal_do_ref_transaction (R)	String (256)
paypal_billing_agreement_status	Status of the billing agreement. Possible values: <ul style="list-style-type: none">■ Active: The billing agreement is active.■ Canceled: The billing agreement is canceled.	ics_paypal_update_agreement (R)	String (8)
paypal_billing_type	Type of billing agreement to create. The only possible value is <code>MerchantInitiatedBilling</code> , which creates a billing agreement for payments that you initiate.	ics_paypal_ec_set (R for billing agreements; otherwise, not used)	String (25)
paypal_cancel_return	URL to which customers are returned if they do not approve the use of PayPal for payment.	ics_paypal_ec_set (R)	String (no limit)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_capture_id	Unique PayPal transaction identification number returned in the capture reply in the paypal_do_capture_transaction_id field.	ics_paypal_refund (R)	String (17)
paypal_customer_email	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.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (R) ics_paypal_ec_order_setup (R) ics_paypal_authorization (R) ics_paypal_transaction_search (O)	String (127)
paypal_desc	Description of items the customer is purchasing.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O) ics_paypal_ec_order_setup (O) ics_paypal_do_ref_transaction (O)	String (127)
paypal_do_capture_request_id	Value of request_id returned from a previous request for ics_paypal_do_capture . When calling ics_paypal_refund , this is the request_id of the capture you want to credit.	ics_paypal_refund (R)	String (26)
paypal_do_capture_request_token	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.	ics_paypal_refund (R)	String (256)
paypal_do_ref_transaction_request_id	Value of request_id returned from a previous request for ics_paypal_do_ref_transaction .	ics_paypal_authorization (R)	String (26)
paypal_do_ref_transaction_request_token	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.	ics_paypal_authorization (R)	String (256)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_ec_do_ payment_request_id	Value of request_id returned from a previous request for ics_paypal_ec_do_payment . This is the request_id 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.	ics_paypal_do_capture (See description) ics_paypal_auth_reversal (See description)	String (26)
paypal_ec_do_ payment_request_ token	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.	ics_paypal_do_capture (R) ics_paypal_auth_reversal (R)	String (256)
paypal_ec_notify_url	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.	ics_paypal_do_ref_ transaction (O)	Alphanumeric (2048)
paypal_ec_order_ setup_request_id	Value of request_id returned from a previous request for ics_paypal_ec_order_setup . This is the request_id of the order setup you want to authorize or reverse.	ics_paypal_ authorization (R) ics_paypal_auth_reversal (See description)	String (26)
paypal_ec_order_ setup_request_token	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.	ics_paypal_ authorization (R) ics_paypal_auth_reversal (R)	String (256)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_ec_set_ request_id	Value of request_id returned from a previous request for ics_paypal_ec_set .	ics_paypal_ec_set (Required unless it is the first call to ics_ paypal_ec_set) ics_paypal_ec_get_ details (R) ics_paypal_ec_do_ payment (R) ics_paypal_ec_order_ setup (R) ics_paypal_create_ agreement (R)	String (26)
paypal_ec_set_ request_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.	ics_paypal_ec_set (R) ics_paypal_ec_get_ details (R) ics_paypal_ec_do_ payment (R) ics_paypal_ec_order_ setup (R) ics_paypal_create_ agreement (R)	String (256)
paypal_hdrbgcolor	Background color for the header of the payment page. Format: HTML hexadecimal color	ics_paypal_ec_set (O)	String (6)
paypal_hdrbordercolor	Border color around the header of the payment page. Format: HTML hexadecimal color	ics_paypal_ec_set (O)	String (6)
paypal_hdrimg	URL for the image that will be displayed in the upper left area of the payment page.	ics_paypal_ec_set (O)	String (127)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_invoice_number	Your invoice or tracking number.	ics_paypal_ec_set (O) ics_paypal_ec_do_ payment (O) ics_paypal_ec_order_ setup (O) ics_paypal_do_capture (O) ics_paypal_do_ref_ transaction (O) ics_paypal_ transaction_search (O)	String (127)
paypal_lc	Locale of pages displayed by PayPal during Express Checkout. Possible values: <ul style="list-style-type: none"> ■ AU: Australia ■ DE: Germany ■ ES: Spain ■ FR: France ■ GB: United Kingdom ■ IT: Italy ■ US (default): United States 	ics_paypal_ec_set (R)	String (2)
paypal_logoimg	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. If you provide this value and paypal_hdrimg in your request, PayPal uses this value and ignores paypal_hdrimg . Note Contact Cybersource Customer Support to have your account configured for this feature.	ics_paypal_ec_set (O)	String (127)
paypal_maxamt	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. Format: <ul style="list-style-type: none"> ■ Cannot include a currency symbol ■ Must include two decimal places ■ The decimal separator must be a period (.) 	ics_paypal_ec_set (O)	String (15)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_noshipping	Indicates if the shipping address should be displayed on the PayPal web pages. Possible values: <ul style="list-style-type: none"> 0 (default): Shipping address fields should be displayed. 1: Shipping address fields should not be displayed. 	ics_paypal_ec_set (O)	String (1)
paypal_note	Memo about the refund. PayPal sends this information to the customer in the notification email.	ics_paypal_refund (O)	String (255)
paypal_order_id	Transaction identifier created by PayPal. This field is returned as follows: <ul style="list-style-type: none"> For a standard order: In paypal_ec_do_payment_paypal_transaction_id in the reply from ics_paypal_ec_do_payment. For a custom order: In paypal_ec_order_setup_paypal_transaction_id in the reply from ics_paypal_ec_order_setup. 	ics_paypal_authorization (O)	String (255)
paypal_pagestyle	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.	ics_paypal_ec_set (O)	Alphabetic String (30)
paypal_payer_id	Unique PayPal customer account identification number that was returned in the ics_paypal_ec_get_details reply message.	ics_paypal_ec_do_payment (R) ics_paypal_ec_order_setup (R)	String (13)
paypal_payflowcolor	Background color for the payment page. Format: HTML hexadecimal color	ics_paypal_ec_set (O)	String (6)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_payment_status	<p>Possible values:</p> <ul style="list-style-type: none"> ■ Denied: You denied the payment. You can deny a payment only if the payment was pending. ■ Pending: The payment is pending. To find out why the payment is pending, request the ics_paypal_get_txn_details service and look at the value for the paypal_pending_reason field in the reply message. ■ Processing: The payment is being processed. ■ 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. ■ Success: The payment was completed and the funds were successfully added to your account balance. 	ics_paypal_transaction_search (O)	String (20)
paypal_payment_type	<p>Indicates whether the payment is instant or delayed. Possible values:</p> <ul style="list-style-type: none"> ■ <code>echeck</code> ■ <code>instant</code> 	<p>ics_paypal_ec_set (O for billing agreements; otherwise, not used)</p> <p>ics_paypal_do_ref_transaction (R)</p>	String (7)
paypal_receipt_id	<p>Receipt identification number.</p> <p>Format: NNNN-NNNN-NNNN-NNNN</p>	ics_paypal_transaction_search (O)	String (16)
paypal_reqconfirmshipping	<p>Indicates if you require the customer's shipping address on file with PayPal to be a confirmed address. Possible values:</p> <ul style="list-style-type: none"> ■ <code>0</code> (default): Shipping address need not be confirmed. ■ <code>1</code>: Shipping address must be confirmed. 	<p>ics_paypal_ec_set (O)</p> <p>ics_paypal_do_ref_transaction (O)</p>	Numeric (1)
paypal_request_billing_address	<p>Indicates whether to return the customer's billing address when you call ics_paypal_ec_get_details. Possible values:</p> <ul style="list-style-type: none"> ■ <code>0</code>: Do not return the customer's billing address. ■ <code>1</code>: Return the customer's billing address. 	ics_paypal_ec_set (O)	String (1)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_return	URL to which the customer's browser returns after leaving PayPal. Note It is essential that this be the correct URL or you will receive an error.	ics_paypal_ec_set (R)	String (no limit)
paypal_return_fmf_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"> ■ 0 (default): Do not return FMF results. ■ 1: Return FMF results. 	ics_paypal_do_ref_transaction (O)	String (1)
paypal_shipping_discount	Shipping discount for the order. This value: <ul style="list-style-type: none"> ■ Must not exceed the equivalent of 10,000 USD in any currency. ■ Cannot include a currency symbol. 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.	ics_paypal_do_ref_transaction (O)	String (9)
paypal_soft_descriptor	Description that is displayed on the customer's account statement.	ics_paypal_do_ref_transaction (O)	String (256)
paypal_token	Timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout. This value is returned by ics_paypal_ec_set the first time you request the service.	ics_paypal_ec_set (Required unless it is the first call to ics_paypal_ec_set) ics_paypal_ec_get_details (R) ics_paypal_ec_do_payment (R) ics_paypal_ec_order_setup (R) ics_paypal_create_agreement (R)	String (20)
paypal_transaction_id	Value of paypal_transaction_id returned from a previous request. This is the paypal_transaction_id of the transaction for which you are requesting information.	ics_paypal_transaction_search (O) ics_paypal_get_txn_details (R)	String (17)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
paypal_transaction_search_end_date	Date and time at which to end the search. The date must be in UTC/GMT. Format: YYYY-MM-DDTHH:MM:SSZ Example 2012-09-15T17:23:15Z	ics_paypal_transaction_search (O)	String (20)
paypal_transaction_search_start_date	Date and time at which to start the search. The date must be in UTC/GMT. Format: YYYY-MM-DDTHH:MM:SSZ Example 2012-08-15T17:23:15Z	ics_paypal_transaction_search (R)	String (20)
promo_code0	Promotion code that enables customers to apply PayPal promotions to your products when purchased through PayPal Express Checkout.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O) ics_paypal_ec_order_setup (O)	String (20)
ship_to_address1	First line of the shipping address.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O)	String (100)
ship_to_address2	Second line of the shipping address.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O)	String (100)
ship_to_city	City of the shipping address.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O)	String (40)
ship_to_country	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O)	String (2)
ship_to_firstname	First name of the recipient. The two name fields, ship_to_firstname and ship_to_lastname , are concatenated. The maximum combined size is 32 characters. If the size exceeds 32 characters, the name is truncated.	ics_paypal_ec_do_payment (O) ics_paypal_ec_set (O)	String (see description)
ship_to_lastname	Last name of the recipient. The two name fields, ship_to_firstname and ship_to_lastname , are concatenated. The maximum combined size is 32 characters. If the size exceeds 32 characters, the name is truncated.	ics_paypal_ec_do_payment (O) ics_paypal_ec_set (O)	String (see description)

Table 16 Order-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
ship_to_phone	Phone number for the shipping address.	ics_paypal_ec_set (O) ics_paypal_ec_do_ payment (O)	String (20)
ship_to_state	State or province of the shipping address. Use the State, Province, and Territory Codes for the United States and Canada .	ics_paypal_ec_set (O) ics_paypal_ec_do_ payment (O)	String (40)
ship_to_zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p>	ics_paypal_ec_set (O) ics_paypal_ec_do_ payment (O)	String (20)

Offer-Level Request Fields



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

Table 17 Offer-Level Request Fields

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
amount	<p>Per-item price of the product. You must include either offer0 and this field, or the order-level field grand_total_amount in your request. See the information about offers and grand totals in Getting Started with Cybersource Advanced for the SCMP API.</p> <p>This value cannot be negative. This value must not exceed the equivalent of 10,000 USD in any currency. Format:</p> <ul style="list-style-type: none"> ■ Cannot include a currency symbol ■ Must include two decimal places ■ The decimal separator must be a period (.) <p>Important If this value is less than or equal to zero, PayPal declines the transaction.</p>	<p>ics_paypal_ec_set (See description)</p> <p>ics_paypal_ec_do_payment (See description)</p> <p>ics_paypal_ec_order_setup (See description)</p> <p>ics_paypal_do_ref_transaction (See description)</p>	Decimal (15)
merchant_ product_sku	<p>Identification code for the product. This field is required if the product code is not <code>default</code> or one of the shipping and handling values.</p>	<p>ics_paypal_ec_set (See description)</p> <p>ics_paypal_ec_do_payment (See description)</p> <p>ics_paypal_ec_order_setup (See description)</p> <p>ics_paypal_do_ref_transaction (See description)</p>	String (127)

Table 17 Offer-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
product_code	Type of product. You can set this field to a value that you create or one of the predefined values listed in Appendix D, "Product Codes," on page 111 . The default value is <code>default</code> . 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 offer-level fields in your request: <ul style="list-style-type: none"> ■ merchant product SKU ■ product name ■ quantity 	ics_paypal_ec_set (See description) ics_paypal_ec_do_payment (See description) ics_paypal_ec_order_setup (See description) ics_paypal_do_ref_transaction (See description)	String (255)
product_description	For the log data to be complete, you must include this field in requests that include offer-level fields.	ics_paypal_ec_set (O) ics_paypal_ec_do_payment (O) ics_paypal_ec_order_setup (O) ics_paypal_do_ref_transaction (O)	String (127)
product_name	This field is required if the product code is not <code>default</code> or one of the shipping and handling values.	ics_paypal_ec_set (See description) ics_paypal_ec_do_payment (See description) ics_paypal_ec_order_setup (See description) ics_paypal_do_ref_transaction (See description)	String (127)
quantity	The default for this field is 1. This field is required if the product code is not <code>default</code> or one of the shipping and handling values.	ics_paypal_ec_set (See description) ics_paypal_ec_do_payment (See description) ics_paypal_ec_order_setup (See description) ics_paypal_do_ref_transaction (See description)	Nonnegative integer (10)

Table 17 Offer-Level Request Fields (Continued)

Field	Description	Used By (Required (R) / Optional (O))	Data Type & Length
tax_amount	<p>Total tax to apply to the product. This value cannot be negative. The tax amount and the offer amount must be in the same currency.</p> <p>The tax amount field is additive. For example:</p> <p>1 You include the following offer lines in your request:</p> <pre>offer0=product_code:electronic_ good^amount:10.00^quantity:1^ product_name:Disc Cleaner^merchant _product_sku:245237^tax_amount: 0.80 offer1=product_code:electronic_ good^amount:20.00^quantity:1^ product_name:Disc Cleaner^merchant _product_sku:245237^tax_amount: 1.60</pre> <p>2 The total amount authorized will be 32.40, not 30.00 with 2.40 of tax included.</p> <p>If you want to include the tax amount and also request the ics_tax service, see Tax Calculation Service Using the SCMP API.</p>	<p>ics_paypal_ec_set (O)</p> <p>ics_paypal_ec_do_payment (O)</p> <p>ics_paypal_ec_order_setup (O)</p> <p>ics_paypal_do_ref_transaction (O)</p>	Decimal (15)

Reply Fields

Naming Conventions for SCMP API Order-Level Reply Fields



The names of most SCMP API reply fields include a preface.

For most SCMP 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 SCMP API services and the preface to use for each service. In [Table 19, "Order-Level Reply Fields," on page 58](#), an asterisk (*) before a field name indicates that you should *not* preface the field name.

Table 18 Prefaces for SCMP API Reply Fields

Service Name	Preface
ics_paypal_auth_reversal	paypal_auth_reversal
ics_paypal_authorization	paypal_authorization
ics_paypal_create_agreement	paypal_create_agreement
ics_paypal_do_capture	paypal_do_capture
ics_paypal_do_ref_transaction	paypal_do_ref_transaction
ics_paypal_ec_do_payment	paypal_ec_do_payment
ics_paypal_ec_get_details	paypal_ec_get_details
ics_paypal_ec_order_setup	paypal_ec_order_setup
ics_paypal_ec_set	paypal_ec_set
ics_paypal_get_txn_details	paypal_get_txn_details
ics_paypal_refund	paypal_refund
ics_paypal_transaction_search	paypal_transaction_search
ics_paypal_update_agreement	paypal_update_agreement

Examples:

- The Do Capture service returns the receipt ID in **paypal_do_capture_paypal_receipt_id**.
- The Get Details service returns the shipping country in **paypal_ec_get_details_ship_to_country**.

Order-Level Reply Fields



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 19 Order-Level Reply Fields

Field	Description	Returned By	Data Type & Length
address_id	eBay company that maintains this address. Possible values: <ul style="list-style-type: none"> ■ eBay ■ PayPal 	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (20)
address_status	Status of the street address on file with PayPal. Possible values: <ul style="list-style-type: none"> ■ None ■ Confirmed ■ Unconfirmed 	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (12)
address1	First line of the street address in the customer's billing address.	ics_paypal_ec_get_details	String (100)
address2	Second line of the street address in the customer's billing address.	ics_paypal_ec_get_details	String (100)
amount	Total transaction amount.	ics_paypal_ec_order_setup ics_paypal_authorization	String (15)
authorization_id	Authorization identification number that was sent in the request.	ics_paypal_do_capture ics_paypal_auth_reversal	String (19)
auth_avs	Indicates the status of the customer's address. Possible values: <ul style="list-style-type: none"> ■ 1: None ■ 2: Other ■ 3: Confirmed ■ 4: Unconfirmed 	ics_paypal_ec_get_details	Numeric (1)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
city	City in the customer's billing address.	ics_paypal_ec_get_details	String (40)
correlation_id	Identifier that can be used for working with PayPal to investigate issues.	All PayPal Express Checkout services	String (20)
country_code	Code for the country in the customer's billing address.	ics_paypal_ec_get_details	String (2)
country_name	Name of the country in the customer's billing address.	ics_paypal_ec_get_details	String (40)
currency	Currency code for one of the PayPal transactional currencies. See Appendix C, "Currency Codes," on page 110 . Note PayPal can add currencies at any time. For an up-to-date list of currencies supported by PayPal, contact your PayPal representative.	ics_paypal_ec_order_setup ics_paypal_authorization ics_paypal_do_ref_transaction ics_paypal_get_txn_details	String (3)
error_code	Identifier that can be used for working with PayPal to investigate issues.	All PayPal Express Checkout services	String (10)
* ics_rcode	One-digit code that indicates whether the entire request was successful. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API . Possible values: <ul style="list-style-type: none">■ -1: An error occurred■ 0: The request was declined■ 1: The request was successful	All PayPal Express Checkout services	Integer (1)
* ics_rflag	One-word description of the result of the entire request. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API .	All PayPal Express Checkout services	String (50)
* ics_rmsg	Message that explains the reply flag ics_rflag . Do not display this message to the customer, and do not use this field to write an error handler. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API .	All PayPal Express Checkout services	String (255)
* merchant_ref_number	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)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
order_id	Transaction identifier created by PayPal.	ics_paypal_ec_do_payment	String (255)
parent_transaction_id	Identifier for the original transaction to which this transaction is related. Field populated for: <ul style="list-style-type: none"> ■ Authorization of an order ■ Capture of an authorized transaction ■ Capture of an order ■ Capture of an order authorization ■ Reauthorization of a transaction ■ Reversal ■ Void of an order Format: NNNN-NNNN-NNNN-NNNN	ics_paypal_do_capture ics_paypal_get_txn_details	String (19)
payer	Customer's email address.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (127)
payer_business	Customer's business name.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (127)
payer_country	Country to ship the product to. Use the two-character <i>ISO Standard Country Codes</i> .	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (2)
payer_firstname	Customer's first name.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (25)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
payer_id	Customer's unique PayPal customer account identification number.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	Alphanumeric string (13)
payer_lastname	Customer's last name.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (25)
payer_middlename	Customer's middle name.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (25)
payer_phone	Customer's contact telephone number. Field mask for U.S. numbers: XXX-XXX-XXXX Field mask for international numbers: +XXX XXXXXXXXX	ics_paypal_ec_get_details	String (20)
payer_salutation	Customer's salutation.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (20)
payer_status	Customer's status. Possible values: ■ verified ■ unverified	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (10)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
payer_suffix	Customer's suffix.	ics_paypal_ec_get_details ics_paypal_update_agreement ics_paypal_get_txn_details	String (12)
payment_type	Indicates whether the payment is instant or delayed. Possible values: <ul style="list-style-type: none"> ■ none ■ echeck ■ instant 	ics_paypal_ec_do_payment ics_paypal_ec_order_setup	String (7)
paypal_amount	Final amount charged.	ics_paypal_ec_order_setup ics_paypal_authorization ics_paypal_do_ref_transaction	String (15)
paypal_billing_agreement_accepted_status	Indicates if the customer accepted the billing agreement. Possible values: <ul style="list-style-type: none"> ■ 0: Not accepted ■ 1: Accepted 	ics_paypal_ec_get_details	String (1)
paypal_billing_agreement_custom	Custom annotation field.	ics_paypal_update_agreement	String (256)
paypal_billing_agreement_desc	Description of the goods or services associated with the billing agreement.	ics_paypal_update_agreement	Alphanumeric String (127)
paypal_billing_agreement_id	Identifier for the billing agreement.	ics_paypal_create_agreement ics_paypal_ec_do_payment ics_paypal_update_agreement ics_paypal_do_ref_transaction	String (256)
paypal_billing_agreement_status	Status of the billing agreement. Possible values: <ul style="list-style-type: none"> ■ Active: The billing agreement is active. ■ Canceled: The billing agreement has been cancelled. 	ics_paypal_update_agreement	String (8)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypal_exchange_rate	Exchange rate if a currency conversion occurred. The 17 characters include the decimal point.	ics_paypal_do_capture ics_paypal_ec_do_payment ics_paypal_ec_order_setup ics_paypal_do_ref_transaction ics_paypal_get_txn_details	Decimal (17)
paypal_fee_amount	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 (,).	ics_paypal_ec_do_payment ics_paypal_ec_order_setup ics_paypal_authorization ics_paypal_do_capture ics_paypal_get_txn_details	String (9)
paypal_fee_refund_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 (,).	ics_paypal_refund	String (9)
paypal_gross_refund_amount	Amount of money refunded to the customer.	ics_paypal_refund	Ask your PayPal representative
paypal_invoice_number	Your invoice or tracking number.	ics_paypal_get_txn_details	String (127)
paypal_net_refund_amount	Amount subtracted from PayPal balance of the customer who is getting the refund.	ics_paypal_refund	Ask your PayPal representative
paypal_note	Memo or note that the customer entered on the PayPal pages.	ics_paypal_get_txn_details	String (255)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypal_order_time	Date-time stamp of the payment. Format: YYYY-MM-DDTHH:MM:SSZ Example 2012-08-15T17:23:15Z	ics_paypal_ec_do_payment ics_paypal_ec_order_setup ics_paypal_do_capture ics_paypal_do_ref_transaction ics_paypal_get_txn_details	String (20)
paypal_payment_gross_amount	Amount of money refunded to the customer. 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 (,).	ics_paypal_do_capture ics_paypal_get_txn_details	Ask your PayPal representative

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

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

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypal_pending_reason	<p>Indicates the reason that payment is pending. Possible values:</p> <ul style="list-style-type: none"> ■ address: 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. ■ authorization: The payment has been authorized but not settled. You need to capture the authorized amount. ■ echeck: Payment was made by an eCheck that has not yet cleared. ■ intl: 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. ■ multi-currency: 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. ■ none: No pending reason. ■ order: The payment is part of an order that has been authorized but not settled. ■ paymentreview: The payment is being reviewed by PayPal for possible fraud. ■ unilateral: The payment was made to an email address that is not registered or confirmed. ■ verify: Your account is not yet verified. You must verify your account before you can accept this payment. ■ other: Payment is pending for a reason not listed above. For more information, contact PayPal customer service. 	<p>ics_paypal_ec_order_setup</p> <p>ics_paypal_do_capture</p> <p>ics_paypal_do_ref_transaction</p> <p>ics_paypal_get_txn_details</p> <p>Note To enable the paypal_pending_reason field for ics_paypal_do_capture, 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 SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypal_reason_code	<p>Indicates the reason for a transaction reversal. Possible values:</p> <ul style="list-style-type: none"> ■ <code>buyer-complaint</code>: Your customer submitted a complaint about the transaction. ■ <code>chargeback</code>: Your customer initiated a chargeback for this transaction. ■ <code>guarantee</code>: Your customer triggered a money-back guarantee. ■ <code>none</code>: No reason code. ■ <code>refund</code>: You gave the customer a refund. ■ <code>other</code>: A reversal has occurred on this transaction due to a reason not listed above. For more information, contact PayPal customer service. 	<p>ics_paypal_ec_order_setup</p> <p>ics_paypal_do_ref_transaction</p> <p>ics_paypal_get_txn_details</p>	String (15)
paypal_receipt_id	<p>Receipt identification number.</p> <p>Format: NNNN-NNNN-NNNN-NNNN</p>	<p>ics_paypal_do_capture</p> <p>ics_paypal_get_txn_details</p>	String (16)
paypal_settle_amount	<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>	ics_paypal_get_txn_details	String (15)
paypal_tax_amount	<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>ics_paypal_ec_do_payment</p> <p>ics_paypal_ec_get_details</p> <p>ics_paypal_ec_order_setup</p> <p>ics_paypal_do_capture</p> <p>ics_paypal_do_ref_transaction</p> <p>ics_paypal_get_txn_details</p>	String (9)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paypal_token	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.	ics_paypal_ec_set ics_paypal_ec_get_details ics_paypal_ec_order_setup	String (20)
paypal_transaction_id	Unique PayPal identifier for the transaction.	ics_paypal_ec_do_payment ics_paypal_ec_order_setup ics_paypal_authorization ics_paypal_do_capture ics_paypal_refund ics_paypal_do_ref_transaction ics_paypal_get_txn_details	String (17)
paypal_transactiontype	Indicates whether the payment is instant or delayed. Possible values: <ul style="list-style-type: none"> ■ cart ■ express-checkout 	ics_paypal_ec_do_payment ics_paypal_ec_order_setup ics_paypal_do_capture ics_paypal_do_ref_transaction ics_paypal_get_txn_details	String (16)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
protection_eligibility	<p>Seller protection in force for the transaction. Possible values:</p> <ul style="list-style-type: none"> ■ Eligible: You are protected by the PayPal Seller Protection Policy for unauthorized payment and item not received. ■ PartiallyEligible: You are protected by the PayPal Seller Protection Policy for item not received. ■ Ineligible: You are not protected under the PayPal Seller Protection Policy. <p>PayPal offers additional features that are not currently supported by Cybersource.</p>	<p>ics_paypal_authorization</p> <p>ics_paypal_get_txn_details</p>	String (17)
protection_eligibility_type	<p>Seller protection in force for the transaction. Possible values:</p> <ul style="list-style-type: none"> ■ Eligible: You are protected by the PayPal Seller Protection Policy for unauthorized payment and item not received. ■ ItemNotReceivedEligible: You are protected by the PayPal Seller Protection Policy for item not received. ■ UnauthorizedPaymentEligible: You are protected by the PayPal Seller Protection Policy for unauthorized payment. ■ Ineligible: You are not protected under the PayPal Seller Protection Policy. <p>Note To enable the protection_eligibility_type field, contact Cybersource Customer Support to have your account configured for this feature.</p>	<p>ics_paypal_authorization</p> <p>ics_paypal_get_txn_details</p>	String (32)
rcode	<p>One-digit code that indicates whether the service request was successful. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ -1: An error occurred ■ 0: The request was declined ■ 1: The request was successful 	All PayPal Express Checkout services	Integer (1)
rflag	<p>One-word description of the result of the service request. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API.</p>	All PayPal Express Checkout services	String (50)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
rmsg	Message that explains the reply flag for the service. Do not display this message to the customer, and do not use this field to write an error handler. See the information about handling replies in Getting Started with Cybersource Advanced for the SCMP API .	All PayPal Express Checkout services	String (255)
* request_id	Identifier for the request generated by the client.	All PayPal Express Checkout services	String (26)
* request_token	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. If you request the Authorization and Capture services together, the request token is for the capture reply only. See the information about request tokens in Getting Started with Cybersource Advanced for the SCMP API .	All PayPal Express Checkout services	String (256)
ship_to_address1	First line of the shipping address.	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (100)
ship_to_address2	Second line of the shipping address.	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (100)
ship_to_city	City of the shipping address.	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (40)
ship_to_country	Country of the shipping address. Use the two-character ISO Standard Country Codes .	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (2)
ship_to_name	Name of the recipient.	ics_paypal_get_txn_details	String (32)
* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.			

Table 19 Order-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ship_to_phone	Phone number for the shipping address.	ics_paypal_get_txn_details	String (20)
ship_to_state	State or province of the shipping address. Use the State, Province, and Territory Codes for the United States and Canada .	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (40)
ship_to_zip	Postal code for the shipping address. Consists of 5 to 9 digits.	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (20)
state	Abbreviation for the state or province in the customer's billing address.	ics_paypal_ec_get_details	String (40)
zip	Postal code in the customer's billing address.	ics_paypal_ec_get_details	String (20)

* Do not preface this field with part of the service name. See "Naming Conventions for SCMP API Order-Level Reply Fields," page 57.

Offer-Level Reply Fields



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

Table 20 Offer-Level Reply Fields

Field	Description	Returned By	Data Type & Length
amount	Per-item price of the product.	ics_paypal_ec_get_details ics_paypal_get_txn_details	Decimal (15)
merchant_product_sku	Identification code for the product.	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (127)

Table 20 Offer-Level Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
product_code	Type of product. Possible values: <ul style="list-style-type: none"> ▪ coupon ▪ default ▪ handling_only ▪ shipping_and_handling <p>Note 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>Note If you use a customized value for the product code, you receive a value of <code>default</code> in this field.</p>	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (255)
product_description	The product description is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (127)
product_name	The product name is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	ics_paypal_ec_get_details ics_paypal_get_txn_details	String (127)
quantity	The quantity is not returned when the product code is <code>handling_only</code> or <code>shipping_and_handling</code> .	ics_paypal_ec_get_details ics_paypal_get_txn_details	Nonnegative integer (10)

Transaction Search Reply Fields

The `ics_paypal_transaction_search` 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.



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 `paypal_transaction_search`. For example, the Transaction Search service returns the first transaction's currency in `paypal_transaction_search_transaction_0_currency`. "[Transaction Search Example](#)," [page 89](#), shows what the transaction search reply fields look like in a reply message.

Table 21 Transaction Search Reply Fields

Field	Description	Returned By	Data Type & Length
transaction_#_ currency	Currency code for the transaction. See Appendix C, "Currency Codes," on page 110.	ics_paypal_ transaction_search	String (3)
transaction_#_ grand_total_ amount	Total transaction amount.	ics_paypal_ transaction_search	String (15)
transaction_#_ paypal_ customer_ display_name	Customer's name as displayed on the PayPal web pages.	ics_paypal_ transaction_search	String
transaction_#_ paypal_fee_ amount	Fee that PayPal charged for the transaction.	ics_paypal_ transaction_search	Decimal
transaction_#_ paypal_net_ amount	Net amount of the transaction.	ics_paypal_ transaction_search	Decimal
transaction_#_ paypal_payer_ or_payee_email	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.	ics_paypal_ transaction_search	String (127)
transaction_#_ paypal_ payment_status	<p>Possible values:</p> <ul style="list-style-type: none"> ■ Denied: You denied the payment. You can deny a payment only if the payment was pending. ■ Pending: The payment is pending. To find out why the payment is pending, request the ics_paypal_get_txn_details service and look at the value for the paypal_pending_reason field in the reply message. ■ Processing: The payment is being processed. ■ 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. ■ Success: The payment was completed and the funds were successfully added to your account balance. 	ics_paypal_ transaction_search	String (20)
transaction_#_ paypal_ transaction_time	<p>Date and time when PayPal processed the transaction. This value is in UTC/GMT.</p> <p>Format: YYYY-MM-DD~HH:MM:SS where ~ denotes a space.</p> <p>Example 2012-09-12 17:23:15</p>	ics_paypal_ transaction_search	String (20)

Table 21 Transaction Search Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
transaction_#_ paypal_ transaction_ timezone	Time zone for the transaction_#_paypal_ transaction_time value. This value is always GMT.	ics_paypal_ transaction_search	String (3)
transaction_#_ paypal_ transaction_type	Possible values: <ul style="list-style-type: none"> ■ Currency Conversion (credit) ■ Currency Conversion (debit) ■ Payment ■ Recurring Payment ■ Temporary Hold ■ Transfer ■ Donation 	ics_paypal_ transaction_search	String (30)
transaction_#_ transaction_id	Unique PayPal identifier for the transaction.	ics_paypal_ transaction_search	String (17)

Examples

Billing Agreement Examples

Billing Agreement with Payment

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

- ics_paypal_ec_set
- ics_paypal_ec_get_details
- ics_paypal_ec_do_payment
- ics_paypal_do_capture

Example 2 Request for ics_paypal_ec_set

```
ics_applications=ics_paypal_ec_set
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_currency=USD
paypal_return=http://www.cybersource.com
paypal_cancel_return=http://www.cybersource.com/cancel
paypal_billing_agreement_desc=Home Town Newspaper Online*4.99 per month
paypal_billing_agreement_custom=One-year subscription
paypal_billing_type=MerchantInitiatedBilling
paypal_payment_type=instant
grand_total_amount=4.99
```

Example 3 Reply from ics_paypal_ec_set

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_set_rcode=1
paypal_ec_set_rflag=SOK
paypal_ec_set_rmsg=Request was processed successfully.
request_id=1928320121920167904854
request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchant_ref_number=HTNsubscription9647
paypal_ec_set_correlation_id=4lks03uw2lbwxu
paypal_ec_set_paypal_token=EC-2UN29359TV924162S
paypal_ec_set_error_code=93045SLWVO
paypal_ec_set_amount=4.99
```

Example 4 Request for ics_paypal_ec_get_details

```
ics_applications=ics_paypal_ec_get_details
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_request_id=1928320121920167904854
paypal_ec_set_request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypal_token=EC-2UN29359TV924162S
```

Example 5 Reply from ics_paypal_ec_get_details

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_get_details_rcode=1
paypal_ec_get_details_rflag=SOK
paypal_ec_get_details_rmsg=Request was processed successfully.
request_id=29FJBL93TBQP5LDGK3H
request_token=Bxwje3Ijb70skjK6HGG0XF3vllnoyf
merchant_ref_number=HTNsubscription9647
paypal_ec_get_details_paypal_billing_agreement_accepted_status=1
paypal_ec_get_details_correlation_id=sldkf9325sdfsdlkjgj
paypal_ec_get_details_auth_avs=3
paypal_ec_get_details_paypal_token=EC-2UN29359TV924162S
paypal_ec_get_details_error_code=93045SLWVO
paypal_ec_get_details_address_status=Confirmed
paypal_ec_get_details_payer_id=S6D5ETGSVYX94
paypal_ec_get_details_payer_status=verified
paypal_ec_get_details_payer_firstname=Jane
paypal_ec_get_details_payer_lastname=Smith
paypal_ec_get_details_payer_country=US
paypal_ec_get_details_payer=jsmith@example.com
paypal_ec_get_details_ship_to_name=Jane Smith
paypal_ec_get_details_ship_to_address1=1295 Charleston Rd.
paypal_ec_get_details_ship_to_city=Mountain View
paypal_ec_get_details_ship_to_state=CA
paypal_ec_get_details_ship_to_country=US
paypal_ec_get_details_ship_to_zip=9404

```

Example 6 Request for ics_paypal_ec_do_payment

```

ics_applications=ics_paypal_ec_do_payment
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_request_id=1928323124420167904854
paypal_ec_set_request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypal_token=EC-2UN29359TV924162S
paypal_customer_email=jsmith@example.com
paypal_payer_id=S6D5ETGSVYX94
paypal_ec_do_payment_currency=USD
grand_total_amount=4.99

```

Example 7 Reply from ics_paypal_ec_do_payment

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_do_payment_rcode=1
paypal_ec_do_payment_rflag=SOK
paypal_ec_do_payment_rmsg=Request was processed successfully.
request_id=TN10C8B3MHS0AK3BKSGN8
request_token=Cr dug40kpF2Qfd8oXDD0ZE4vpp24
merchant_ref_number=HTNsubscription9647
paypal_ec_do_payment_paypal_billing_agreement_id=3AD0ib340UWM89231f20
paypal_ec_do_payment_correlation_id=sldkf9325sdfsdlkjgj
paypal_ec_do_payment_paypal_token=EC-2UN29359TV924162S
paypal_ec_do_payment_paypal_payment_status=Pending
paypal_ec_do_payment_paypal_transaction_id=2YG99268YE540943P
paypal_ec_do_payment_payment_type=None
paypal_ec_do_payment_paypal_tax_amount=0.00
paypal_ec_do_payment_order_id=0-58X525738C493004E
paypal_ec_do_payment_paypal_transactiontype=expresscheckout
paypal_ec_do_payment_paypal_pending_reason=order
paypal_ec_do_payment_error_code=93045SLWVO

```

Example 8 Request for ics_paypal_do_capture

```

ics_applications=ics_paypal_do_capture
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_do_payment_request_id=TN10C8B3MHS0AK3BKSGN8
paypal_ec_do_payment_request_token=Cr dug40kpF2Qfd8oXDD0ZE4vpp24
complete_type=Complete
paypal_authorization_id=2YG99268YE540943P
grand_total_amount=4.99

```

Example 9 Reply from ics_paypal_do_capture

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_do_capture_rcode=1
paypal_do_capture_rflag=SOK
paypal_do_capture_rmsg=Request was processed successfully.
request_id=FY25W8N9OWC2LE7WOCBU5
request_token=Dtely5OsoW3Pnw0mWVV9x26ml135
merchant_ref_number=HTNsubscription9647
paypal_do_capture_paypal_transaction_id=2SA82969X3543562X
paypal_do_capture_parent_transaction_id=2YG99268YE540943P
paypal_do_capture_authorization_id=2YG99268YE540943P
paypal_do_capture_paypal_payment_status=Completed
paypal_do_capture_error_code=93045SLWVO
paypal_do_capture_correlation_id=gwlbobf9325biwflpaj
paypal_do_capture_paypal_payment_type=instant
paypal_do_capture_paypal_payment_gross_amount=4.99
paypal_do_capture_paypal_tax_amount=0.00
paypal_do_capture_paypal_fee_amount=0.36
paypal_do_capture_paypal_transactiontype=expresscheckout

```

Billing Agreement without Payment

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

- ics_paypal_ec_set
- ics_paypal_ec_get_details
- ics_paypal_create_agreement

Example 10 Request for ics_paypal_ec_set

```

ics_applications=ics_paypal_ec_set
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_currency=USD
paypal_return=http://www.cybersource.com
paypal_cancel_return=http://www.cybersource.com/cancel
paypal_billing_agreement_desc=Home Town Newspaper Online*4.99 per month
paypal_billing_agreement_custom=One-year subscription
paypal_billing_type=MerchantInitiatedBilling
paypal_payment_type=instant
grand_total_amount=0

```

Example 11 Reply from ics_paypal_ec_set

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_set_rcode=1
paypal_ec_set_rflag=SOK
paypal_ec_set_rmsg=Request was processed successfully.
request_id=1928320121920167904854
request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchant_ref_number=HTNsubscription9647
paypal_ec_set_correlation_id=4lks03uw2lbwxu
paypal_ec_set_paypal_token=EC-2UN29359TV924162S
paypal_ec_set_error_code=93045SLWVO
paypal_ec_set_amount=0
```

Example 12 Request for ics_paypal_ec_get_details

```
ics_applications=ics_paypal_ec_get_details
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_request_id=1928320121920167904854
paypal_ec_set_request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypal_token=EC-2UN29359TV924162S
```

Example 13 Reply from ics_paypal_ec_get_details

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_get_details_rcode=1
paypal_ec_get_details_rflag=SOK
paypal_ec_get_details_rmsg=Request was processed successfully.
request_id=29FJBL93TBQPSLDGK3H
request_token=Bxwje3Ijb70skjK6HGG0XF3vllnoyf
merchant_ref_number=HTNsubscription9647
paypal_ec_get_details_paypal_billing_agreement_accepted_status=1
paypal_ec_get_details_correlation_id=sldkf9325sdfsdlkjgj
paypal_ec_get_details_auth_avs=3
paypal_ec_get_details_paypal_token=EC-2UN29359TV924162S
paypal_ec_get_details_error_code=93045SLWVO
paypal_ec_get_details_address_status=Confirmed
paypal_ec_get_details_payer_id=S6D5ETGSVYX94
paypal_ec_get_details_payer_status=verified
paypal_ec_get_details_payer_firstname=Jane
paypal_ec_get_details_payer_lastname=Smith
paypal_ec_get_details_payer_country=US
paypal_ec_get_details_payer=jsmith@example.com
paypal_ec_get_details_ship_to_name=Jane Smith
paypal_ec_get_details_ship_to_address1=1295 Charleston Rd.
paypal_ec_get_details_ship_to_city=Mountain View
paypal_ec_get_details_ship_to_state=CA
paypal_ec_get_details_ship_to_country=US
paypal_ec_get_details_ship_to_zip=94043

```

Example 14 Request for ics_paypal_create_agreement

```

ics_applications=ics_paypal_create_agreement
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_ec_set_request_id=1928320121920167904854
paypal_ec_set_request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypal_token=EC-2UN29359TV924162S

```

Example 15 Reply from ics_paypal_create_agreement

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_create_agreement_rcode=1
paypal_create_agreement_rflag=SOK
paypal_create_agreement_rmsg=Request was processed successfully.
request_id=TN10C8B3MHS0AK3BKSGN8
request_token=Cr dug40kpF2Qfd8oXDD0ZE4vpp24
merchant_ref_number=HTNsubscription9647
paypal_create_agreement_paypal_billing_agreement_
id=3ADOib340UWM89231f20
```

Reference Transaction

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

- ics_paypal_do_ref_transaction
- ics_paypal_authorization
- ics_paypal_do_capture

Example 16 Request for ics_paypal_do_ref_transaction

```
ics_applications=ics_paypal_do_ref_transaction
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
currency=USD
grand_total_amount=4.99
paypal_billing_agreement_id=3ADOib340UWM89231f20
paypal_payment_type=instant
```

Example 17 Reply from ics_paypal_do_ref_transaction

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_do_ref_transaction_rcode=1
paypal_do_ref_transaction_rflag=SOK
paypal_do_ref_transaction_rmsg=Request was processed successfully.
request_id=023mbdgil2spfkjgqdbvn
request_token=slbiw9345BJldbodf1BNQCPE1409D9k
merchant_ref_number=HTNsubscription9647
paypal_do_ref_transaction_correlation_id=4lks03uw2lbwxu
paypal_do_ref_transaction_paypal_token=EC-2UN29359TV924162S
paypal_do_ref_transaction_error_code=93045SLWVO
paypal_do_ref_transaction_amount=4.99
paypal_do_ref_transaction_currency=USD
paypal_do_ref_transaction_paypal_amount=4.99
paypal_do_ref_transaction_paypal_billing_agreement_id=
    3ADOib340UWM89231f20
paypal_do_ref_transaction_paypal_order_time=2009-08-15T17:23:09Z
paypal_do_ref_transaction_paypal_payment_status=Completed
paypal_do_ref_transaction_paypal_payment_type=instant
paypal_do_ref_transaction_paypal_pending_reason=none
paypal_do_ref_transaction_paypal_reason_code=none
paypal_do_ref_transaction_paypal_tax_amount=0.00
paypal_do_ref_transaction_paypal_transactiontype=express-checkout
paypal_do_ref_transaction_paypal_transaction_id=htnsubw30bwlbmq2

```

Example 18 Request for ics_paypal_authorization

```

ics_applications=ics_paypal_authorization
paypal_order_id=58X525738C493004E
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
currency=USD
grand_total_amount=4.99
paypal_do_ref_transaction_request_id=023mbdgil2spfkjgqdbvn
paypal_do_ref_transaction_request_token=slbiw9345BJldbodf1BNQCPE1409D9k
paypal_customer_email=jsmith@example.com
customer_email=jsmith@example.com

```

Example 19 Reply from ics_paypal_authorization

```
ics_rcode=1
ics_rmsg=Request was processed successfully.
ics_rflag=SOK
merchant_ref_number=HTNsubscription9647
request_id=49gks2og0g12wrg879aergsk
request_token=SLGQ30B235b0XCV0lskb2369awopSgm
paypal_authorization_rcode=1
paypal_authorization_rmsg=Request was processed successfully.
paypal_authorization_rflag=SOK
paypal_authorization_amount=4.99
paypal_authorization_currency=USD
paypal_authorization_paypal_transaction_id=3GT12375C398240X
paypal_authorization_paypal_amount=4.99
paypal_authorization_correlation_id=r2lvp9325sdfsdlkjgj
paypal_authorization_error_code=sboe93045
```

Example 20 Request for ics_paypal_do_capture

```
ics_applications=ics_paypal_do_capture
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
currency=USD
grand_total_amount=4.99
complete_type=Complete
paypal_authorization_request_id=49gks2og0g12wrg879aergsk
paypal_authorization_request_token=SLGQ30B235b0XCV0lskb2369awopSgm
paypal_authorization_id=9XT12375C2469923X
```

Example 21 Reply from ics_paypal_do_capture

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=HTNsubscription9647
paypal_do_capture_rcode=1
paypal_do_capture_rflag=SOK
paypal_do_capture_rmsg=Request was processed successfully.
request_id=203948106391278015965
request_token=FFv9VEdZAOGh084W7RJzIIzHUTUL
paypal_do_capture_paypal_payment_type=instant
paypal_do_capture_paypal_payment_gross_amount=4.99
paypal_do_capture_paypal_tax_amount=0.00
paypal_do_capture_currency=USD
paypal_do_capture_paypal_fee_amount=0.36
paypal_do_capture_amount=4.99
paypal_do_capture_paypal_transactiontype=cart
paypal_do_capture_paypal_transaction_id=4M8612956X2810426
paypal_do_capture_parent_transaction_id=9XT12375C2469923X
paypal_do_capture_authorization_id=0YU23486D3570034Y
paypal_do_capture_paypal_payment_status=Completed
paypal_do_capture_correlation_id=r2lvp9325sdfsdlkjgj
paypal_do_capture_error_code=sboe93045

```

Cancellation Example

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

Example 22 Request for ics_paypal_update_agreement

```

ics_applications=ics_paypal_update_agreement
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
paypal_billing_agreement_id=3ADOib340UWM89231f20
paypal_billing_agreement_status=Canceled

```

Example 23 Reply from ics_paypal_update_agreement

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_update_agreement_rcode=1
paypal_update_agreement_rflag=SOK
paypal_update_agreement_rmsg=Request was processed successfully.
request_id=LRMB83bzwl39b8qen
request_token=Ydlt020bjUPZ4bwpc6937prh
merchant_ref_number=HTNsubscription9647
paypal_update_agreement_address_status=Confirmed
paypal_update_agreement_payer=jsmith@example.com
paypal_update_agreement_payer_business=Home Town Newspaper
paypal_update_agreement_payer_country=US
paypal_update_agreement_payer_firstname=Jane
paypal_update_agreement_payer_lastname=Smith
paypal_update_agreement_payer_id=S6D5ETGSVYX94
paypal_update_agreement_payer_status=verified
paypal_update_agreement_paypal_billing_agreement_custom=
    One-year subscription
paypal_update_agreement_paypal_billing_agreement_desc=
    Home Town Newspaper Online*4.99 per month
paypal_update_agreement_paypal_billing_agreement_
id=3ADOib340UWM89231f20
paypal_update_agreement_paypal_billing_agreement_status=Canceled
paypal_update_agreement_correlation_id=4lks03uw2lbwxu
paypal_update_agreement_error_code=93045SLWVO
```

Offer-Level Examples



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

Example 24 Request for ics_paypal_ec_set

```
ics_applications=ics_paypal_ec_set
merchant_id=HomeTownBooks
merchant_ref_number=HTBorder9647
currency=USD
paypal_return=http://www.cybersource.com
paypal_cancel_return=http://www.cybersource.com/cancel
offer0=product_code:books^product_name:Merriam-Webster Dictionary
      ^merchant_product_sku:23456^quantity:1^amount:22.00^tax_amount:1.10
offer1=product_code:books^product_name:Handbook of English Grammar
      ^merchant_product_sku:23458^quantity:1^amount:24.00^tax_amount:1.20
offer2=product_code:books^product_name:Roget's Thesaurus^merchant_
product_sku:23450^quantity:1^amount:16.00^tax_amount:0.80
offer3=product_code:coupon^product_name:New Customer^merchant_product_
sku:97531^quantity:1^amount:3.00
offer4=product_code:shipping_and_handling^amount:7.95
```

Example 25 Reply from ics_paypal_ec_set

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_ec_set_rcode=1
paypal_ec_set_rflag=SOK
paypal_ec_set_rmsg=Request was processed successfully.
request_id=KPTRWUMC1238931sng
request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
merchant_ref_number=HTBorder9647
paypal_ec_set_paypal_token=349GJ1k2jk34993
paypal_ec_set_correlation_id=51ks03uw3lawxz
paypal_ec_set_error_code=911245SVts0
```

Example 26 Request for ics_paypal_ec_get_details

```
ics_applications=ics_paypal_ec_get_details
merchant_id=HomeTownBooks
merchant_ref_number=HTBorder9647
paypal_ec_set_request_id=KPTRWUMC1238931sng
paypal_ec_set_request_token=Aeuvj6IjRRjVhjIZWEEvhhf8jZL4YX/I20gRk
paypal_token=349GJ1k2jk34993
```

Example 27 Reply from ics_paypal_ec_get_details

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
request_id=RZ34980sctj2
request_token=Bxwje3Ijb70skjK6HGG0XF3vllnoyf
merchant_ref_number=HTBorder9647
paypal_ec_get_details_rcode=1
paypal_ec_get_details_rflag=SOK
paypal_ec_get_details_rmsg=Request was processed successfully.
paypal_ec_get_details_paypal_token=349GJlk2jk34993
paypal_ec_get_details_correlation_id=6kszo3np4lbwxy
paypal_ec_get_details_error_code=822236PXnw3
paypal_ec_get_details_auth_avs=3
paypal_ec_get_details_address_status=Confirmed
paypal_ec_get_details_payer_id=S6D5ETGSVYX94
paypal_ec_get_details_payer_status=verified
paypal_ec_get_details_payer_firstname=Jane
paypal_ec_get_details_payer_lastname=Smith
paypal_ec_get_details_payer_country=US
paypal_ec_get_details_payer=jsmith@example.com
paypal_ec_get_details_ship_to_name=Jane Smith
paypal_ec_get_details_ship_to_address1=1295 Charleston Rd.
paypal_ec_get_details_ship_to_city=Mountain View
paypal_ec_get_details_ship_to_state=CA
paypal_ec_get_details_ship_to_country=US
paypal_ec_get_details_ship_to_zip=94043
paypal_ec_get_details_paypal_tax_amount=3.10
offer0=product_code:default^product_name:Merriam-Webster Dictionary
      ^merchant_product_sku:23456^quantity:1^amount:22.00
offer1=product_code:default^product_name:Handbook of English Grammar
      ^merchant_product_sku:23458^quantity:1^amount:24.00
offer2=product_code:default^product_name:Roget's Thesaurus^merchant_
      product_sku:23450^quantity:1^amount:16.00
offer3=product_code:coupon^product_name:New Customer^merchant_product_
      sku:97531^quantity:1^amount:3.00
offer4=product_code:shipping_and_handling^amount:7.95

```

Transaction Search Example

Example 28 Request for ics_paypal_transaction_search

```
merchant_id=HomeTownNewspaper
merchant_ref_number=HTNsubscription9647
ics_applications=ics_paypal_transaction_search
paypal_transaction_search_start_date=2012-09-25T18:47:13Z
paypal_transaction_search_end_date=2012-09-25T18:49:13Z
paypal_customer_email=jsmith@example.com
paypal_transaction_id=93N51798SX666845X
paypal_invoice_number=0001529
grand_total_amount=5.00
currency=USD
paypal_payment_status=Success
payer_firstname=Jane
payer_lastname=Smith
```

Example 29 Reply from ics_paypal_transaction_search

```
merchant_ref_number=HTNsubscription9647
request_id=3485988938400181552773
request_token=AhjrLwSRefOhK9P3yQ0KIJp7HBMVhNPMrTnpa4sA/H2H
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
paypal_transaction_search_rcode=1
paypal_transaction_search_rflag=SOK
paypal_transaction_search_rmsg=Request was processed successfully.
paypal_transaction_search_transaction_0_paypal_transaction_time=2012-09-25T18:48:11Z
paypal_transaction_search_transaction_0_paypal_transaction_timezone=GMT
paypal_transaction_search_transaction_0_transaction_type=Payment
paypal_transaction_search_transaction_0_paypal_payer_or_payee_email=jsmith@example.com
paypal_transaction_search_transaction_0_paypal_customer_display_name=Jane Smith
paypal_transaction_search_transaction_0_paypal_transaction_id=93N51798SX666845X
paypal_transaction_search_transaction_0_paypal_payment_status=Completed
paypal_transaction_search_transaction_0_grand_total_amount=5.00
paypal_transaction_search_transaction_0_currency=USD
paypal_transaction_search_transaction_0_paypal_fee_amount=-0.45
paypal_transaction_search_transaction_0_paypal_net_amount=4.55
paypal_transaction_search_transaction_1_paypal_transaction_time=2012-09-25T18:48:05Z
paypal_transaction_search_transaction_1_paypal_transaction_timezone=GMT
paypal_transaction_search_transaction_1_transaction_type=Authorization
paypal_transaction_search_transaction_1_paypal_payer_or_payee_email=jsmith@example.com
paypal_transaction_search_transaction_1_paypal_customer_display_name=Jane Smith
paypal_transaction_search_transaction_1_paypal_transaction_id=8KV00008PR858651B
paypal_transaction_search_transaction_1_paypal_payment_status=Completed
paypal_transaction_search_transaction_1_grand_total_amount=5.00
paypal_transaction_search_transaction_1_currency=USD
paypal_transaction_search_transaction_1_paypal_fee_amount=0.00
paypal_transaction_search_transaction_1_paypal_net_amount=5.00
```

Currency Codes

The following currency codes are supported for PayPal Express Checkout.



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



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 21 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 **product_code** offer-level field.

Table 22 Product Codes

Product Code	Definition
<code>coupon</code>	Coupon applied to the entire order.
<code>default</code>	Use this value when none of the other values apply.
<code>handling_only</code>	Fee that you charge your customer to cover your administrative selling costs.
<code>shipping_and_handling</code>	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.
<code>shipping_only</code>	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.

Reply Flags

The following table lists the PayPal Express Checkout reply flags returned by the SCMP API. See the information about handling replies in [Getting Started with Cybersource Advanced for the SCMP API](#) for a discussion of replies and reply flags.



Because Cybersource can add reply fields, reply codes (rcode), reply flags (rflag), and reply messages (rmsg) 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 reply flag value to determine the result if it receives a reply code that it does not recognize.

Table 24 Reply Flags

Reply Flag	Description
SOK	Successful transaction.
DMISSINGFIELD	The request is missing one or more required fields.
DINVALIDDATA	One of the following: <ul style="list-style-type: none"> ■ One or more fields in the request contain invalid data. ■ General decline by PayPal. Possible action: request that the customer selects a different form of payment at the PayPal web site. ■ There is a problem with your Cybersource merchant configuration. Possible action: do not resend the request. Contact Customer Support to correct the configuration problem.
ESYSTEM	System error. You must design your transaction management system to include a way to correctly handle Cybersource system errors. The error might indicate a valid Cybersource system error, or it might indicate a PayPal rejection because of some type of invalid data. In either case, Cybersource recommends that you do not design your system to endlessly retry sending a transaction in the case of a system error. See the documentation for the Cybersource client you are using for important information about how to handle system errors and retries.

Table 24 Reply Flags (Continued)

Reply Flag	Description
ETIMEOUT	<p>Error: 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>
DPAYMENTREFUSED	PayPal rejected the transaction.

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