

CyberSource PayPal® Services User Guide

Simple Order API

August 2013



CyberSource Contact Information

For technical support questions, go to the Home page in the Business Center to see the contact information appropriate for your account.

Visit the Business Center, your central location for managing your online payment transactions, at <https://businesscenter.cybersource.com>.

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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Recent Revisions to This Document

Release	Changes
August 2013	Removed incorrect information about Customer Support. Updated the information about request tokens.
September 2012	This revision contains only editorial changes and no technical updates
April 2011	Updated the PayPal account setup information in "Enabling API Access," page 25.
June 2010	Added Cybersource API usernames: ■ Production: paypal_cybersource_api1.cybersource.com ■ Testing: cybersource_paypal_api1.cybersource.com
May 2010	■ Added the link-to-request fields: See linkToRequest in Table 4, page 38.

Introduction

About PayPal Payments

If you are not already familiar with how PayPal works, consider opening a personal PayPal account to understand the customer's experience. In general, a customer opens a PayPal account and adds one or more funding sources, such as a credit card, or an electronic checking account. When the customer chooses to pay with PayPal, they must choose which funding source to use for the payment. If the customer receives payments and accumulates stored value in their PayPal Account, they may also choose to pay with those stored funds. For more information, go to www.paypal.com.

Before you can process any PayPal payments, you must open and configure a PayPal business account and configure your CyberSource account to use PayPal as described in [Chapter 2, "Setting Up Your System," on page 19](#). When you open your PayPal business account, PayPal assigns you a PayPal account manager who will assist you with configuring your PayPal account.

PayPal Payments

Payments Through the Hosted Order Page

To begin processing regular PayPal orders through the Hosted Order Page, you only need to configure your CyberSource account. See [Chapter 2, "Setting Up Your System," on page 19](#). The customer completes the billing and shipping fields on the order form and clicks the Buy button. At that time, you send the order information to CyberSource, as you would through the API, and CyberSource redirects the order information to PayPal's Web site so that the transaction can be completed. CyberSource passes to PayPal the request ID, the success and cancellation URLs, your billing information, your email address, the amount of the transaction, and the currency.

When using the Hosted Order Page, the transaction process is similar to that used by the API for regular payments ("[Payments Through an API](#)," [page 8](#)) except that by default the customer is returned to these Hosted Order Page success and cancellation pages:

- If the customer completed the transaction successfully, the customer is returned to the same success page as for card or check transactions.
- If the customer did not complete the transaction, or if the transaction failed, the customer is returned to the order form to choose another form of payment.

In addition, if you configure the Hosted Order Page to do so, CyberSource sends to you and to your customer an email receipt for the order. See the samples in "[CyberSource Email Messages](#)," [page 15](#).

Payments Through an API

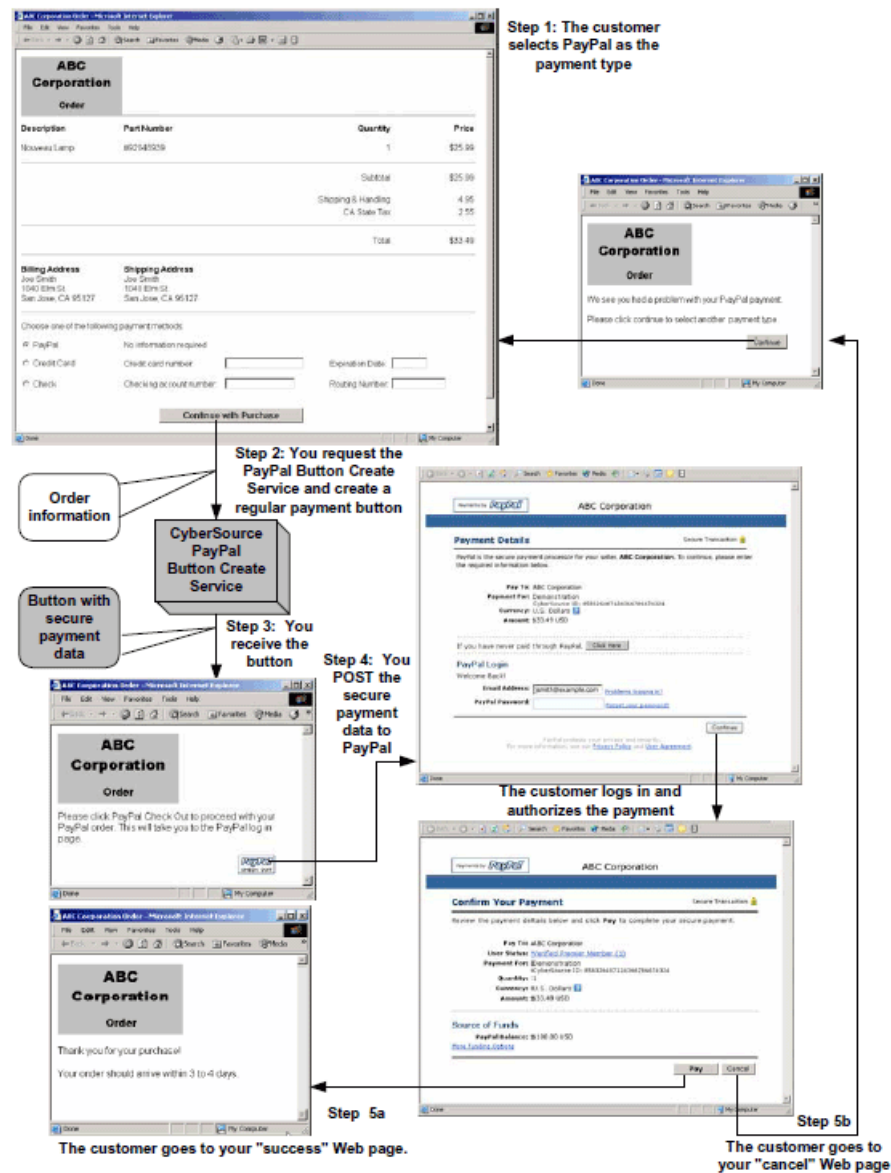
You can process regular PayPal payments. This is a standard payment for goods and services. You can also process credits (refunds).

This section describes the flow for accepting regular PayPal payments at your site. See [Figure 1, page 9](#) for a diagram of the payment flow.

The customer shops at your Web store and selects items to purchase. You collect the billing and shipping addresses and calculate tax and shipping.

- 1** The customer chooses PayPal as the payment type from the list of payment types you provide.
- 2** You send the order information to CyberSource in a request for the Button Create Service, indicating that you want a button for a regular PayPal payment.
- 3** In the reply, you receive the button (a self-contained form) containing the secure payment data PayPal requires. Note that the service returns to you two buttons: an encrypted version of the button (to use in production) and an unencrypted version (to use when testing or troubleshooting).
- 4** The customer clicks the button, which POSTs the secure payment data to PayPal while taking the customer to the PayPal Web site to log in and authorize the payment.
- 5** Depending on the result:
 - PayPal directs the customer to the success page.
 - If the customer clicks cancel, PayPal directs the customer to the cancellation page, which instructs the customer to choose a new payment type.

Figure 1 Processing a Regular PayPal Payment



After PayPal processes the payment:

- PayPal sends you an email notification of the payment (you can turn this off if you do not want to get the emails).
- PayPal sends the customer an email receipt for the payment.
- If you are using the Hosted Order Page, CyberSource sends to you and to the customer the email receipts that you configured.
- Your PayPal account reflects the payment.
- CyberSource receives PayPal's Instant Payment Notification (IPN) message for the payment. See ["Information from PayPal: Instant Payment Notification \(IPN\)," page 12.](#)

- CyberSource forwards you the IPN message if you configure your CyberSource account for this. See ["Configuring Your CyberSource Account," page 29](#).
- The information from the IPN is included in CyberSource's Payment Events Report. See ["Information from CyberSource: Reports," page 13](#).
- The details for the payment are available for you to view in the Business Center. See ["Information from CyberSource: Transaction Details in the Business Center," page 14](#).

PayPal Credits

You can perform only one credit for an order, for either a partial amount or the full amount of the payment. You can refund a customer's money through the Business Center or by using an API to request the PayPal credit service:

- **Business Center**—Search for and retrieve the original payment request from the database by using the request ID or another identifier for the payment. Then click a button in the Business Center interface to request the credit. You must perform the credit within 60 days of the payment request.
- **PayPal credit service**—Provide the request ID from the original payment so that CyberSource can locate the payment information in the database. You must perform the credit within 60 days of the payment request.

After a credit is processed:

- CyberSource receives PayPal's Instant Payment Notification (IPN) message for the credit. See ["Information from PayPal: Instant Payment Notification \(IPN\)," page 12](#).
- CyberSource forwards you the IPN message if you configure your CyberSource account for this. See ["Configuring Your CyberSource Account," page 29](#).
- The information from the IPN is included in CyberSource's Payment Events Report. See ["Information from CyberSource: Reports," page 13](#).
- The details of the credit are available for you to view in the Business Center. See ["Information from CyberSource: Transaction Details in the Business Center," page 14](#).

Order Tracking with an API

For general information about order tracking, see [Getting Started with CyberSource Essentials](#).

Reconciliation IDs

The following table lists the field names for the PayPal reconciliation IDs in the API reply messages.

Table 1 Reconciliation IDs in Replies

Service	Field Names
Button create	Simple Order API: paypalButtonCreateReply_reconciliationID
Credit	Simple Order API: paypalCreditReply_reconciliationID

Request IDs

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

The field names for the PayPal request IDs in the credit request messages is **paypalCreditService_paypalPaymentRequestID**.

Transaction Reply Information

Information from PayPal: Payment Data Transfer (PDT)

PayPal's Payment Data Transfer is an optional feature you can use if it fits your implementation. You use PDT to display payment transaction details to the customer when they are redirected to your site after completing a regular payment at PayPal's site. If you want to use PDT, you must enable Auto Return. See ["Enabling Auto Return," page 28](#).

You might choose to use PDT because it is one way to determine whether to ship the goods. Note that if the customer uses a delayed payment type such as an electronic check, the PDT information will not be sufficient because it takes typically several days before the check clears.

Another disadvantage of PDT is that it is possible that the customer will close the browser before the redirect to your site is complete, causing you to miss receiving the PDT information. The information you receive with PDT is also available in CyberSource's reports and in the Instant Payment Notification message. CyberSource recommends that you use one of these methods instead of PDT if you need a reliable order fulfillment indicator.

For information about setting up and using PDT, see PayPal's *Merchant User Manual and Integration Guide*. For information about the content of the PDT reply variables that you receive, see ["PDT Reply Variables," page 66](#).

Information from PayPal: Instant Payment Notification (IPN)

PayPal's Instant Payment Notification (IPN) provides immediate notification about your payments and any events relating to them. CyberSource automatically receives all of the IPN messages for your PayPal account and uses the information to populate CyberSource's reports. Because CyberSource receives your IPN messages for you, you do not need to set up your PayPal account to receive them.

You can configure your CyberSource account so that you are forwarded your IPN messages as soon as CyberSource receives them. You might want to do this if you need to ship the ordered goods immediately, and you cannot wait for the confirmation that comes in the CyberSource reports. When you configure your CyberSource account, you give CyberSource the secure URL where you want to receive the IPN messages.



Important

The Payment Events Report, which is described in ["Information from CyberSource: Reports," page 13](#), includes the information from every IPN message that is forwarded to you. If the system that receives your IPN messages is not available, PayPal will repeat forwarding each IPN message at specific intervals until your system receives it or until PayPal's system reaches its retry limit. Each of these instances will be included in the Payment Events Report, so you will see multiple occurrences of the same information in the report if your system does not receive the IPN message the first time it is forwarded to you.

To use IPN message forwarding, your server certificate must be issued by a Certificate Authority (CA) that is known to CyberSource. If it is not, CyberSource cannot authenticate your server certificate during the handshake with your server. CyberSource supports all of the CA's that are generally used. Check with CyberSource Customer Service to make sure your certificate meets these requirements.

For regular payments, you receive an IPN message when these events occur:

- Payment
- Clearing of an electronic check
- Reversal of a payment
- Cancellation of a reversal of a payment
- Refund of a payment

See ["IPN Variables for Regular Payments," page 67](#) for a list of IPN variables you receive for a regular payment.

Information from CyberSource: Reports

The CyberSource reports listed below include information about your PayPal transactions. The information in the reports comes from your API requests, the Hosted Order Page, and from the IPN messages that PayPal sends. For detailed information about the reports, see the [Business Center Reporting User's Guide](#).

- **Payment Events Report**—Shows the latest status of your PayPal payments and credits and whether you can fulfill the order. It is a daily report that includes any new information from the past 24 hours that PayPal has about any of your transactions. For example, when you request a payment, if the payment is pending (which happens if the customer pays with an electronic check), the transaction is included in the report for the first time with a status of pending. The next time the transaction is included in the report (which could be several days later), it will have a status of completed or denied, which indicates whether you can ship the goods. The transaction will be included again in the report if other events occur. For example, it is included again if the customer initiates a reversal or if you initiate a refund.



Note

If you perform any PayPal transactions outside of the CyberSource interface, the IPN messages for those transactions will still be forwarded to CyberSource. The data from those transactions will be included in the Payment Events Report but not in the Business Center. To reduce inconsistency within your transaction management system, you should perform all of your PayPal transactions through CyberSource.

The Payment Events Report includes the information from every IPN message that is forwarded to you. If the system that receives your IPN messages is not available, PayPal will repeat forwarding each IPN message at specific intervals until your system receives it or until PayPal's system reaches its retry limit. Each of these instances will be included in the Payment Events Report, so you will see multiple occurrences of the same information in the report if your system does not receive the IPN message the first time it is forwarded to you.

- **Capture Detail Report**—Lists the card type as `PayPal` for your PayPal transactions.

If you are already subscribed to these reports, then you will automatically start to see PayPal transactions in the reports. If you are a new user of these reports, you can subscribe to and obtain the reports in the Business Center.

For general information about the reports, see the online help in the Business Center.

Information from CyberSource: Transaction Details in the Business Center

You can view the details of your PayPal transactions in the Business Center just as you can for other payment types. You can search for transactions by date, application type (PayPal Button Create, PayPal Credit, PayPal Payment), customer name, and other transaction identifiers.

To find transactions processed with the Hosted Order Page, you need to search for all transactions. These transactions will be identified in the search results and search details as PayPal Button Create.

PayPal Email Messages

You automatically receive email notifications for any successful payments, canceled payments, and pending payments. You can turn off these emails by disabling them in your PayPal profile. For more information, see ["Disabling Email Notifications," page 20](#).

CyberSource Email Messages

If you use the Hosted Order Page, you can configure in the settings page notification messages in addition to those sent by PayPal:

- Merchant's Purchase Data

```

merchantID=infodev
orderPage_serialNumber=1483085059980167904065
orderNumber=1148408942800
orderAmount=9
orderCurrency=usd
orderNumber_publicSignature=yy09eRmdwbyeKP1TpEBGC1bdurk=
orderAmount_publicSignature=OoZcyV29OVGjSjwbCW0NwfxXTms=
orderCurrency_publicSignature=3Fgv79oTZ8e6cnJru2pzkGfKyOY=
decision_publicSignature=AQpYVF584wiP6aQ8jj8mI15juVE=
billTo_street1=1111 Sample Avenue
billTo_city=Your Town
billTo_state=CA
billTo_country=us
billTo_postalCode=99999
billTo_firstName=John
billTo_lastName=Doe
requestID=1484089639110167904065
decision=ACCEPT
reasonCode=100
paymentOption=paypal
orderPage_transactionType=authorization

```

■ Merchant's Purchase Confirmation

Sample Header

Purchase Description

Payment Details

Order Number: 1148408942800
Subtotal: 9.00
Tax: 0.00
Total: 9.00

For Support, contact:

Your Merchant
800-555-1212
merchant@example.com

Order Details

Payment Type: paypal

Customer ID:

Billing Address:

John Doe
1111 Sample Avenue
Your Town, CA 99999

Return Codes

Result Code: Request was processed successfully.

Transaction Details

Transaction Type: authorization
Transaction Source: Hosted Order Page
Reconciliation ID:

Merchant Defined Data

Field 1: Fast shipping
Field 2: Gift

Thank you, and please visit us again!

■ Customer's Receipt

Sample Header

Purchase Description

Payment Details

Order Number:	1148408942800
Subtotal:	9.00
Tax:	0.00
Total:	9.00

For Support, contact:

Your Merchant
800-555-1212
merchant@example.com

Order Details

Payment Type: paypal
Customer ID:

Billing Address:
John Doe
1111 Sample Avenue
Your Town, CA 99999

Thank you, and please visit us again!

Chargebacks

PayPal offers several services related to chargebacks:

- If the customer chooses a credit card as the funding source for the PayPal payment, they have the normal chargeback dispute rights. If the customer disputes the charge, PayPal performs the initial chargeback processing and contacts you for documentation.
- PayPal offers a Buyer Complaint Process that is applicable to all purchases, regardless of the funding source. When a customer files a complaint, PayPal performs an investigation and contacts you for documentation.
- PayPal also provides a service called the Seller Protection Plan (SPP), which helps protect merchants against chargebacks due to fraud. The service is available only to qualifying merchants, and only for orders where the shipping address matches a confirmed address on file at PayPal. CyberSource indicates whether the address is confirmed or unconfirmed in the list of transaction details, which you can view by searching for the transaction in the Business Center.

For more information about these services, contact your PayPal Account Manager, or visit PayPal's Security Center (go to www.paypal.com and click Security Center at the bottom of the page).

Additional Documentation

PayPal References

The PayPal documents are available on the PayPal web site:

- **Sandbox User Guide**—PayPal Sandbox test environment
- **Merchant User Manual and Integration Guide**—Your PayPal profile setup, regular payments, Payment Data Transfer, and Instant Payment Notification

CyberSource Guides

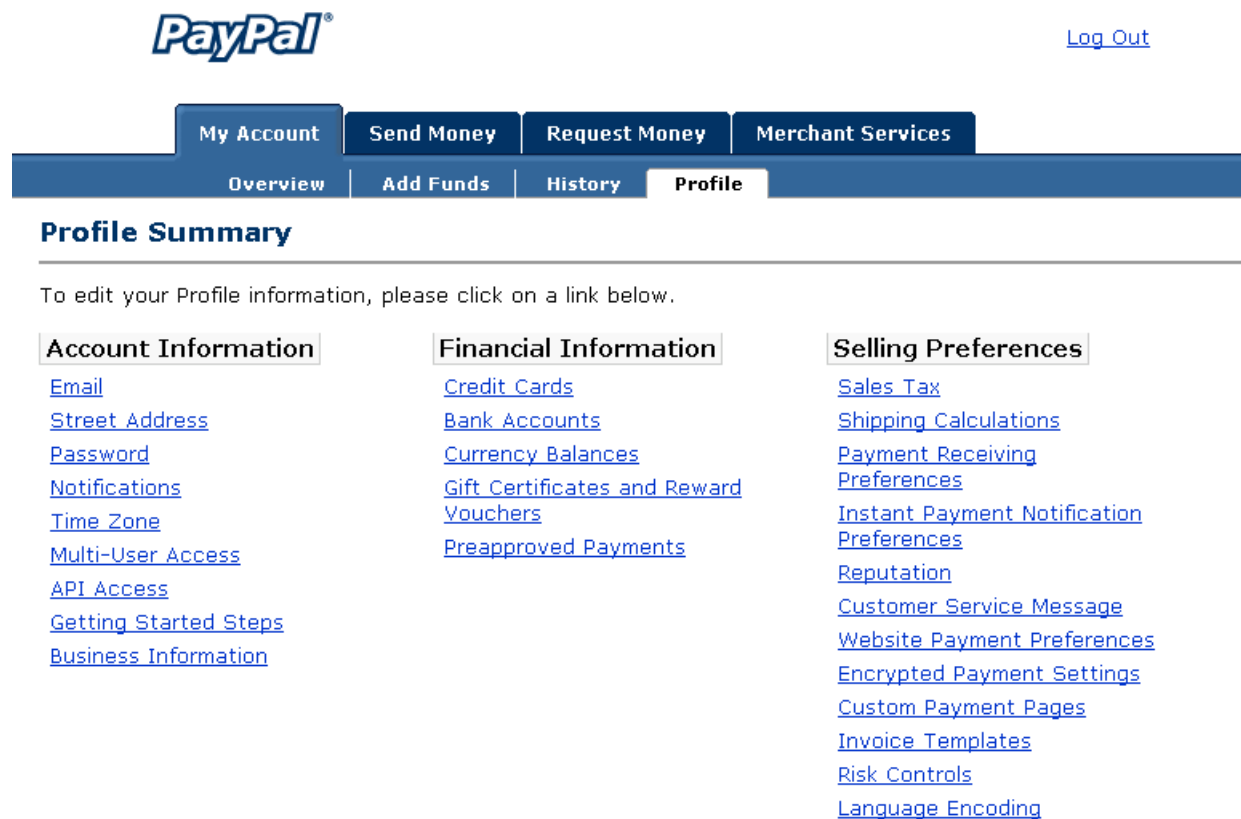
The CyberSource documents are available on the Business Center:

- **Getting started**—Account management, technical resources, basics about the Simple Order API. See [Getting Started with CyberSource Essentials](#).
- **Business Center**—Configuring account settings and searching for order information. See the [Business Center User's Guide](#).
- **Hosted Order Page**—Payment order form hosted by CyberSource. See the [Business Center Hosted Order Page User's Guide](#).
- **Simple Order API**—API for accessing CyberSource services. See the [Credit Card Services User's Guide](#).
- **Reporting**—Using the CyberSource reports. See the [Business Center Reporting User's Guide](#).

Setting Up Your System

Opening and Configuring Your PayPal Account

If you do not already have a PayPal business account, go to www.paypal.com to open one. To configure your PayPal account, log in and click the Profile tab:



PayPal [Log Out](#)

My Account Send Money Request Money Merchant Services

Overview Add Funds History **Profile**

Profile Summary

To edit your Profile information, please click on a link below.

Account Information Email Street Address Password Notifications Time Zone Multi-User Access API Access Getting Started Steps Business Information	Financial Information Credit Cards Bank Accounts Currency Balances Gift Certificates and Reward Vouchers Preapproved Payments	Selling Preferences Sales Tax Shipping Calculations Payment Receiving Preferences Instant Payment Notification Preferences Reputation Customer Service Message Website Payment Preferences Encrypted Payment Settings Custom Payment Pages Invoice Templates Risk Controls Language Encoding
---	---	---

This chapter describes the PayPal settings needed to make your PayPal and CyberSource accounts work together. To configure additional PayPal settings, see PayPal's *Merchant User Manual and Integration Guide*, which is available at www.paypal.com.

Settings for Hosted Order Page and API

Disabling Email Notifications

If you do not want to receive an email message every time a customer pays with PayPal at your store, you can turn off email notifications. To do this, go to the “Notifications” page and disable notifications for “I receive money with PayPal” and “I receive PayPal Website Payments and Instant Purchase.”

Notifications

[Back to Profile Summary](#)

To save changes to your Notifications preferences, please click **Save** below.

General Notifications

I would like to receive:

- ☐ PayPal Periodical Monthly Newsletter and Product Updates*
- ☐ Auction Seller Tips
- ☐ ALL Policy Change Notices
- ☐ Customer Feedback Surveys
- ☐ Partner/Third-Party Promotions
- ☐ PayPal Developer Network updates

Payment Notifications

Please send me an email when:

- ☒ I receive money with PayPal
- ☐ I request money with PayPal
- ☒ I receive PayPal Website Payments and Instant Purchase

Disabling Electronic Checks

Depending on your business rules or the type of products you sell, you may not want to let customers use their electronic checking accounts when paying through PayPal. Checks typically take 3 to 4 business days to clear. Use the Business Center or the Payment Events Report to verify that a check has cleared.

To disable acceptance of electronic checks, in the “Payment Receiving Preferences” page, disable “eCheck for PayPal Website Payments and Smart Logo payments.”

Payment Receiving Preferences

[Back to Profile Summary](#)

Note: If you are using IPN, you must update your scripts to handle payments in currencies other than U.S. Dollars. [Learn More](#)

Block payments from U.S. users who **do not** provide a Confirmed Address:

- ☐ Yes
☒ No
☐ Ask Me

Block payments if they are sent to me in a currency that I do not hold:

- ☐ Yes
☒ No, accept them and convert them to U.S. Dollars
☐ Ask Me

Block Payments from users who:

- ☐ Have non-U.S. PayPal accounts
☐ Initiate payments from the Pay Anyone subtab of the Send Money tab
 (If checked, you may enter an Alternate Payment URL for your buyers)

**Alternate Payment
URL:** (optional)

 ?

Block Payments funded by:

- ☒ eCheck for PayPal Website Payments and Smart Logo payments

The Credit Card Statement Name is the name that will appear on your customers' credit card statements. The name can only be 11 alpha-numeric characters in length, including spaces.

**Credit Card Statement
Name:**

 ?

Setting Your Credit Card Statement Name

Whenever a customer funds a payment with a credit card, your name will be included on the customer's credit card statement in the purchase description. Setting your credit card statement name helps reduce chargebacks and customer confusion.



Note

*PayPal ** is appended at the beginning of the credit card statement name. For example, *YourCompany* is included as *PayPal *YourCompany*.

To set the credit card statement name, go to the "Payment Receiving Preferences" page. See the screen in "[Disabling Electronic Checks](#)," page 20.

Entering the IPN URLs

If you want to receive IPN notifications so that you can see the payment information in the Business Center, return to the Profile Summary page.



Note

You can return to this page to change the URL as necessary.

Step 1 Click Instant Payment Notification Preferences.

This page is displayed.

The screenshot shows the PayPal user interface. At the top left is the PayPal logo. At the top right is a [Log Out](#) link. Below the logo is a navigation bar with four main tabs: **My Account**, **Send Money**, **Request Money**, and **Merchant Services**. Under **My Account** are sub-tabs: **Overview**, **Add Funds**, **History**, and **Profile**. The **Profile** tab is selected. Below the navigation bar is the heading **Instant Payment Notification Preferences** with a [Back to Profile Summary](#) link. The main content area states: "PayPal's Instant Payment Notification (IPN) allows you to integrate PayPal payments with your website back-end operations." Below this, it shows **Instant Payment Notification (IPN)** is **Off**, and **Instant Payment Notification (IPN) URL:** followed by a text input field. An **Edit** button is located to the right of the input field. At the bottom is a footer with various links: [Money Market](#), [ATM/Debit Card](#), [Referrals](#), [About Us](#), [Accounts](#), [Fees](#), [Privacy](#), [Plus Card](#), [Security Center](#), [Contact Us](#), [User Agreement](#), and [Developers](#).

Step 2 Click **Edit**.

PayPal [Log Out](#)

My Account **Send Money** **Request Money** **Merchant Services**

Overview **Add Funds** **History** **Profile**

Instant Payment Notification Preferences

[Activate Instant Payment Notification](#)

Before activating Instant Payment Notification, please [read the instructions](#) to ensure that you can support the notification system.

☐ Instant Payment Notification integrates PayPal payment notification and authentication with your website's back-end operations. Check this box to activate Instant Payment Notification, and enter the URL at which you will receive the payment notifications below.

Notification URL:

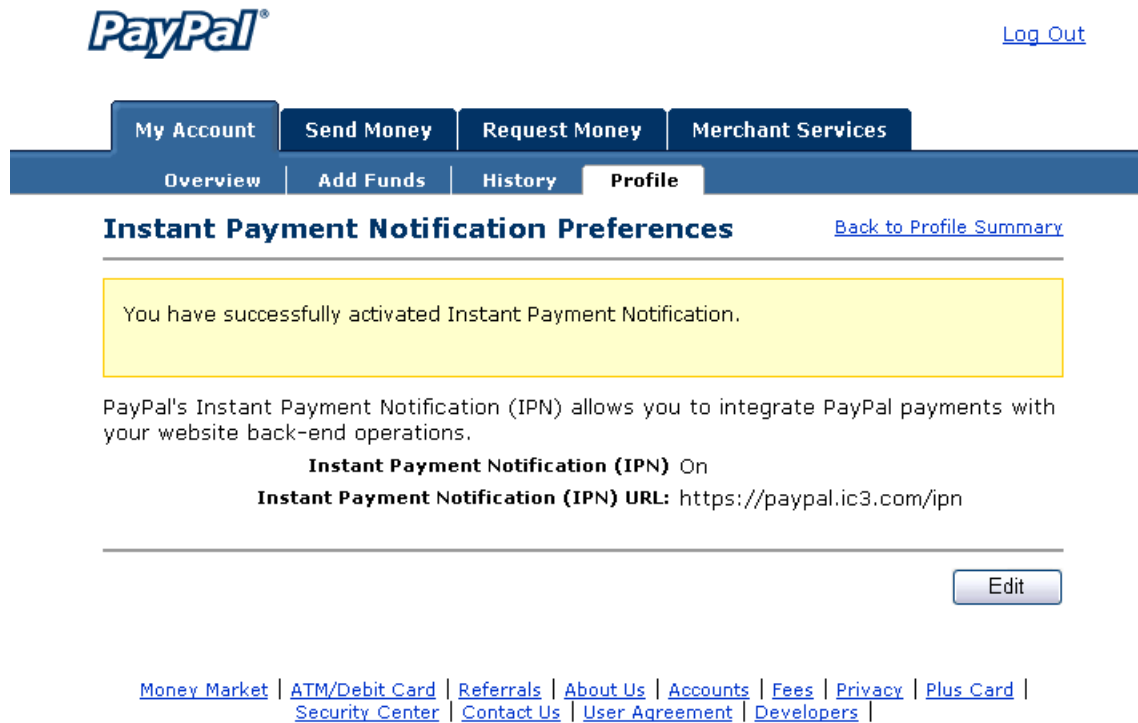
[Save](#)

[Money Market](#) | [ATM/Debit Card](#) | [Referrals](#) | [About Us](#) | [Accounts](#) | [Fees](#) | [Privacy](#) | [Plus Card](#) | [Security Center](#) | [Contact Us](#) | [User Agreement](#) | [Developers](#)

Step 3 Check the box and enter one of these URLs:

- For CyberSource's test environment: <https://paypaltest.ic3.com/ipn>
- For CyberSource's production environment: <https://paypal.ic3.com/ipn>

Step 4 Click **Save**.



The screenshot shows the PayPal user interface. At the top left is the PayPal logo. To the right is a [Log Out](#) link. Below these is a navigation bar with four main tabs: **My Account**, **Send Money**, **Request Money**, and **Merchant Services**. Under the **My Account** tab, there are four sub-tabs: **Overview**, **Add Funds**, **History**, and **Profile**. The **Profile** tab is currently selected. Below the navigation bar, the page title is **Instant Payment Notification Preferences**, with a [Back to Profile Summary](#) link to its right. A yellow message box states: "You have successfully activated Instant Payment Notification." Below this, a paragraph explains that PayPal's Instant Payment Notification (IPN) allows integration with website back-end operations. It then displays the **Instant Payment Notification (IPN) URL** as <https://paypal.ic3.com/ipn>. An **Edit** button is located at the bottom right of the main content area. At the very bottom of the page, there is a footer with a series of links: [Money Market](#), [ATM/Debit Card](#), [Referrals](#), [About Us](#), [Accounts](#), [Fees](#), [Privacy](#), [Plus Card](#), [Security Center](#), [Contact Us](#), [User Agreement](#), and [Developers](#).

PayPal [Log Out](#)

My Account **Send Money** **Request Money** **Merchant Services**

Overview **Add Funds** **History** **Profile**

Instant Payment Notification Preferences [Back to Profile Summary](#)

You have successfully activated Instant Payment Notification.

PayPal's Instant Payment Notification (IPN) allows you to integrate PayPal payments with your website back-end operations.

Instant Payment Notification (IPN) On
Instant Payment Notification (IPN) URL: <https://paypal.ic3.com/ipn>

[Edit](#)

[Money Market](#) | [ATM/Debit Card](#) | [Referrals](#) | [About Us](#) | [Accounts](#) | [Fees](#) | [Privacy](#) | [Plus Card](#) | [Security Center](#) | [Contact Us](#) | [User Agreement](#) | [Developers](#)

You are ready to proceed to the next section.

Settings for API Users Only

Enabling API Access

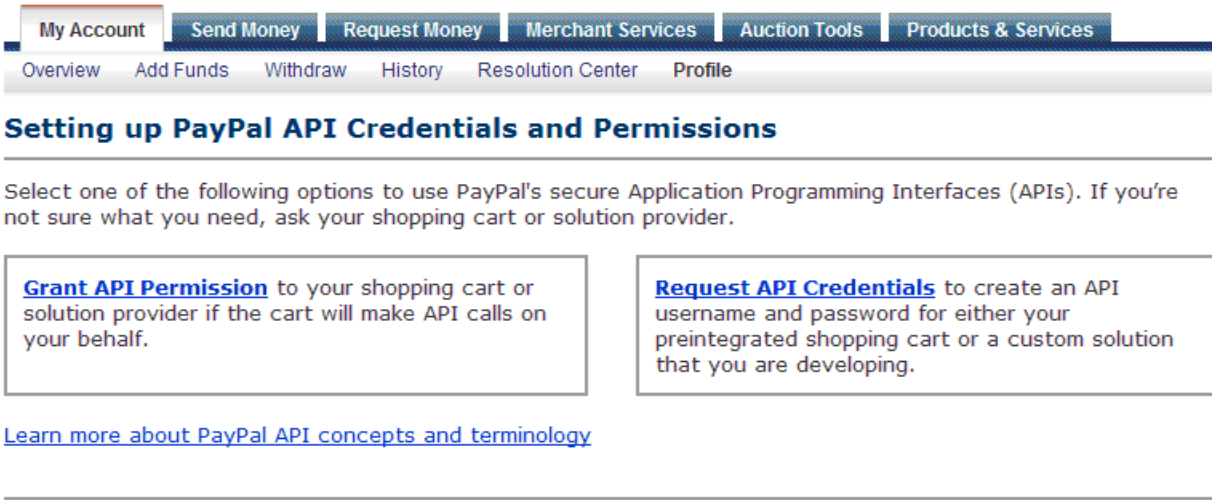
To process PayPal payments and credits through the CyberSource API, you must enable CyberSource to act on your behalf in the PayPal system.

Step 1 Under “Account Information,” click the **API Access** link.

The screenshot shows the PayPal user interface. At the top right, there are links for 'Log Out' and 'Security Center', followed by a search bar. The main navigation bar includes 'My Account', 'Send Money', 'Request Money', 'Merchant Services', 'Auction Tools', and 'Products & Services'. Below this, a sub-navigation bar shows 'Overview', 'Add Funds', 'Withdraw', 'History', 'Resolution Center', and 'Profile'. The 'Profile' section is active, displaying a 'Profile Summary'. A message states: 'To edit your Profile information, please click on a link below.' Below this message are three columns of links:

Account Information	Financial Information	Selling Preferences
Email	Credit/Debit Cards	Sales Tax
Street Address	Bank Accounts	Set Up Shipping Calculations
Password	Currency Balances	Payment Receiving Preferences
Notifications	Gifts and Discounts	Instant Payment Notification Preferences
Language Preference	Recurring Payments	Reputation
Time Zone	Pay List	Customer Service Message
Multi-User Access		Website Payment Preferences
API Access		Encrypted Payment Settings
Getting Started Steps		Custom Payment Pages
Business Information		Invoice Templates
		Language Encoding

Step 2 Click the **Grant API Permission** link.



My Account | Send Money | Request Money | Merchant Services | Auction Tools | Products & Services

Overview | Add Funds | Withdraw | History | Resolution Center | Profile

Setting up PayPal API Credentials and Permissions

Select one of the following options to use PayPal's secure Application Programming Interfaces (APIs). If you're not sure what you need, ask your shopping cart or solution provider.

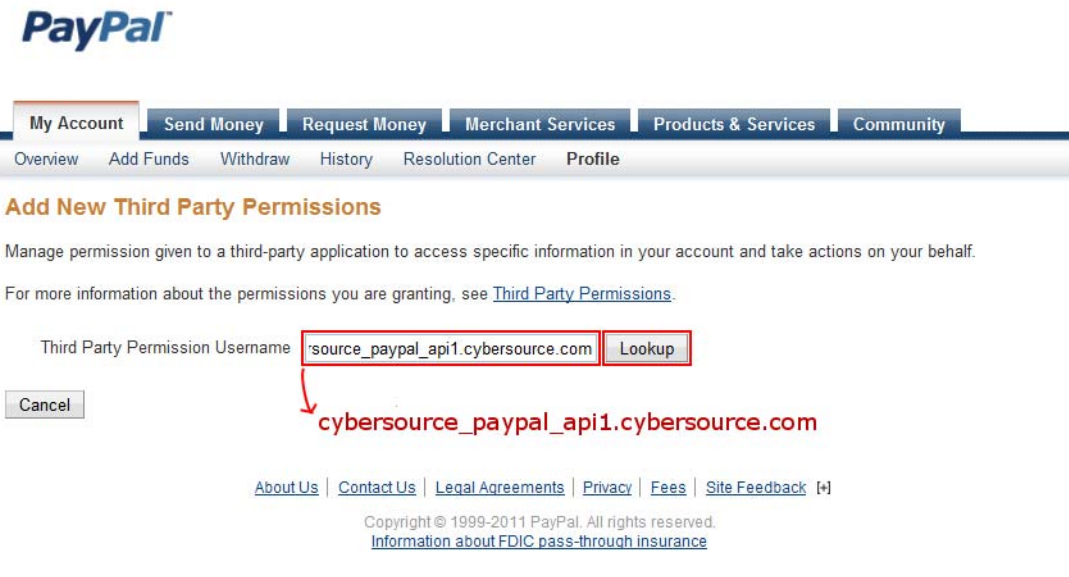
[Grant API Permission](#) to your shopping cart or solution provider if the cart will make API calls on your behalf.

[Request API Credentials](#) to create an API username and password for either your preintegrated shopping cart or a custom solution that you are developing.

[Learn more about PayPal API concepts and terminology](#)

Step 3 For testing, enter `cybersource_paypal_api1.cybersource.com`, which is the CyberSource API account username.

For live transactions, enter `paypal.cybersource.com`.



PayPal

My Account | Send Money | Request Money | Merchant Services | Products & Services | Community

Overview | Add Funds | Withdraw | History | Resolution Center | Profile

Add New Third Party Permissions

Manage permission given to a third-party application to access specific information in your account and take actions on your behalf.

For more information about the permissions you are granting, see [Third Party Permissions](#).

Third Party Permission Username:

cybersource_paypal_api1.cybersource.com

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[Information about FDIC pass-through insurance](#)

Step 4 Click **Lookup**.

Step 5 Select the permissions circled in red in the following figure and then click **Add**.



My Account
Send Money
Request Money
Merchant Services
Products & Services
Community

Overview
Add Funds
Withdraw
History
Resolution Center
Profile

Add New Third Party Permissions

Manage permission given to a third-party application to access specific information in your account and take actions on your behalf.

For more information about the permissions you are granting, see [Third Party Permissions](#).

Third Party Permission Username

Organization CyberSource

Available Permissions

See the [Third Party Definitions](#) for help.

- ☐ Use Express Checkout to process payments.
- ☐ Issue a refund a specific transaction.
- ☐ Process your customers credit or debit card payments.
- ☐ Authorize and capture your PayPal transactions.
- ☐ Create and manage PayPal payment buttons on your website.
- ☐ Obtain your PayPal account balance.
- ☐ Obtain information about a single transaction.
- ☐ Search your transactions for items that match specific criteria and display the results.
- ☐ Initiate a transaction based on a prior transaction or existing billing agreement.
- ☐ Create and manage Recurring Payments.
- ☐ Obtain authorization for pre-approved payments and initiate pre-approved transactions.
- ☐ Issue a refund for any prior transaction.
- ☐ Initiate transactions to multiple recipients in a single batch.
- ☐ Dynamically encrypt PayPal payment buttons on your web site.
- ☐ Consolidate funds from two or more child accounts to a master account.
- ☐ Generate consolidated reports for all accounts.
- ☐ Use Express Checkout to process mobile payments.
- ☐ Authorize transactions with Universal Air Travel Plans.

Step 6 You can edit or view permissions from the **Success** page:

[Log Out](#) | [Security and Protection](#)

PayPal

My Account | **Send Money** | **Request Money** | **Merchant Services** | **Products & Services** | **Community**

Overview | **Add Funds** | **Withdraw** | **History** | **Resolution Center** | **Profile**

Manage Third Party Access

 You have successfully added cybersource_paypal_api1.cybersource.com.

Manage permission given to a third-party application to access specific information in your account and take actions on your behalf.

For more information about the permissions you are granting, see [Third Party Permissions](#).

Third Party Username	Organization	
cybersource_paypal_api1.cybersource.com	CyberSource	Edit Third Party ▼

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[Information about FDIC pass-through insurance](#)

Enabling Auto Return

CyberSource recommends that you use PayPal's Auto Return, which returns the customer immediately to your Web site at the conclusion of the purchase. With Auto Return, the typical PayPal-hosted payment complete page is replaced with a page on your site, allowing you to control the customer's experience at the end of the purchase, and perform any follow-on sales or marketing activities.

To enable Auto Return, go to the Website Payment Preferences page. You will need to provide the URL for the return page. For more information about Auto Return, see PayPal's *Merchant User Manual and Integration Guide*.

You can override the Auto Return URL that you have specified by using a particular API field in your Button Create Service request. For more information, see the description of `paypal_return` in [Table 4, page 38](#).

Website Payment Preferences

[Back to Profile Summary](#)

Auto Return for Website Payments

Auto Return for Website Payments brings your buyers back to your website immediately after payment completion. Auto Return applies to PayPal Website Payments, including Buy Now, Donations, Subscriptions, and Shopping Cart. [Learn More](#)

Auto Return: ☒ On
☐ Off

Return URL: Enter the URL that will be used to redirect your customers upon payment completion. This URL must meet the guidelines detailed below. [Learn More](#)

Return URL:

Return URL Requirements: The following items are required in order to set up Auto Return.

- Per the user agreement, you must provide verbiage on the page displayed by the Return URL that will help the buyer understand that the payment has been made and that the transaction has been completed.
- You must provide verbiage on the page displayed by the Return URL that explains that payment transaction details will be emailed to the buyer.
- **Example:** Thank you for your payment. Your transaction has been completed, and a receipt for your purchase has been emailed to you. You may log into your account at <https://www.paypal.com> to view details of this transaction.

Enabling the Settlement File

Your PayPal payments and credits will be reflected in your CyberSource reports. For many merchants, this is sufficient to support reconciliation. However, if you prefer additional detail for reconciliation, you might want to use PayPal's Settlement File. In particular, you might want to use it if you are accepting payments in multiple currencies, as it documents the exchange rate conversion. Contact your PayPal Account Manager for more information.

Configuring Your CyberSource Account

You need to configure your CyberSource account differently depending on the method that you choose to send your transaction requests to CyberSource.

As of May 31, 2006, the configuration process differs slightly for existing and new merchants.

Merchants Using the API

The PayPal return fields **paypal_return** and **paypal_cancel_return** were optional. They are now required for API users. For information about integrating with CyberSource's API, see ["Requesting Services with the Simple Order API," page 32](#).

- **Existing merchants**—Your PayPal ID and IPN URL are transferred to the new implementation. You only need to configure the PayPal return fields if you have not so already. See ["Information from PayPal: Instant Payment Notification \(IPN\)," page 12](#).
- **New merchants**—You need to call CyberSource Customer Support to provide your PayPal ID and IPN URL. After that, you need to configure the PayPal return fields.

Merchants Using the Hosted Order Page

Merchants who use the Hosted Order Page cannot use the PayPal return fields.

- **Existing merchants**—Your settings are transferred. Customers are now returned to the default Hosted Order Page receipt and decline pages.
- **New merchants**—You need to call CyberSource Customer Support to be enabled for the Hosted Order Page. After that, you need to configure your Hosted Order Page settings:
 - a In the Business Center, go to **Settings > HOP Settings**.
 - b Scroll to the **Payment Types** subsection.
 - c Check the box for PayPal.
You can choose PayPal as sole form of payment or any of the other forms available.
 - d Enter your PayPal login ID.
 - e If you use the Hosted Order Page, leave this field blank.
 - f Complete the other configuration fields as necessary for your Hosted Order Page implementation.
You can begin processing PayPal payments with the Hosted Order Page.
 - g Set the payment currencies and payment types.
If you customize your order form, use the field `paymentOption` to indicate the type of payment: `card`, `check`, or `paypal`. You can also set the currencies you want to accept for each payment type. For more information, see the [Business Center Hosted Order Page User's Guide](#).

All Merchants

Step 1 Enable cookies in your web browser.

Open your web browser and follow the instructions appropriate for your browser.

For Internet Explorer:

- a** Select **Tools > Internet Options > Privacy**.
- b** In the **Settings** section, move the slider to the bottom (**Accept All Cookies**).
- c** Click **Apply**.
- d** Click **OK**.

For Netscape Communicator:

- a** Select **Edit > Preferences**.
- b** Click **Advanced**.
- c** Check the box **Accept All Cookies** and click **OK**.

Step 2 Send the shipping address

When collecting information about the order, CyberSource recommends that you collect the shipping address information even though it is optional. PayPal will check the shipping address that you provide against the customer's list of confirmed addresses. If the address is one of the confirmed addresses, the transaction may be eligible for chargeback protection under PayPal's Seller Protection Policy. See PayPal's Security Center for more information. If PayPal returns to you a different address than that entered by the customer in the Hosted Order Page, use the address returned by PayPal when fulfilling the order.

Requesting Services with the Simple Order API

Creating Buttons

The **paypalButtonCreateService** lets you create a button for processing a regular payment with an aggregate amount for the order (PayPal's Buy Now button)



Note

PayPal also has a Shopping Cart button that uses individual item information and amounts instead of an aggregate order total. This chapter discusses how to create PayPal's Buy Now button. For information about requesting a Shopping Cart button, see [Chapter 4, "Creating a Shopping Cart Button," on page 54](#).

For more information about regular payments, see ["PayPal Payments," page 7](#).

Requesting the Service

To request the service, send a request with **paypalButtonCreateService_run=true**. Use the **paypalButtonCreateService_buttonType** field to indicate which type of button you want. See [Appendix A, "Examples for the Simple Order API," on page 56](#) for example requests.

PayPal's HTML Variables for a Regular Payment Button

The regular payment button (PayPal's Buy Now button) that CyberSource creates includes a list of HTML variables that give transaction information to PayPal and that control the display of the PayPal site when the customer goes there to approve the payment. CyberSource adds "**paypal_**" before the name of each variable to create the corresponding CyberSource API field that you use when creating the button. For example, PayPal has a variable called **return**. The field you include in your request to CyberSource is **paypal_return**. See the **paypal_...** fields in [Table 4, page 38](#).

Not all of the available PayPal HTML variables are listed in [Table 4](#); only the basic ones you need to process a payment are included. For the entire list of HTML variables available for use with a Buy Now button, see PayPal's *Merchant User Manual and Integration Guide*. If PayPal's guide lists any variables that you want to use that are not already listed in [Table 4](#), simply add the corresponding **paypal_<variable_name>** field to

your **paypalButtonCreateService** request to include that variable in the button. This also allows you to easily use any new Buy Now button variables that PayPal might create in the future. CyberSource does not validate the content of the HTML variable API fields that you send.



Important

For some of the available HTML variables, CyberSource automatically assigns values and does not need your input. Specifically, CyberSource sets the values for **cmd**, **business**, **custom**, **invoice**, and **notify_url** and does not provide corresponding API fields for you to use. If you send fields called **paypal_cmd**, **paypal_business**, **paypal_custom**, **paypal_invoice**, or **paypal_notify_url** in your request, the request will be rejected.

Some of CyberSource's regular API fields for specifying amounts and item-level information are similar to or duplicate the function of some of PayPal's HTML fields. For example, PayPal has an HTML variable called **amount**. CyberSource has similar API fields called **purchaseTotals_grandTotalAmount** and **item_#_unitPrice** (and one of these two are required in the **paypalButtonCreateService** request). CyberSource automatically populates the PayPal **amount** variable that is included in the button with a value based on the **purchaseTotals_grandTotalAmount** or **item_#_unitPrice** values that you provide in your **paypalButtonCreateService** request.

However, you could theoretically include **paypal_amount** in your request *in addition* to a **purchaseTotals_grandTotalAmount** or **item_#_unitPrice**, because CyberSource allows you to pass most of the available PayPal variables generically as **paypal_<variable name>** through the CyberSource API. But you should not do this because CyberSource will then include two values for the **amount** variable in the button: one based on the **purchaseTotals_grandTotalAmount** or **item_#_unitPrice** values, and one based on the **paypal_amount** field you sent. This might lead to unpredictable amount values being displayed at PayPal's site when the customer goes there to approve the payment.

If a particular PayPal HTML variable is being populated by CyberSource based on the value you provide for a similar CyberSource API field, the description for that PayPal variable in [Table 4, page 38](#) will say so. For example, see the description for **paypal_amount** in the table.

Sending the Shipping Address for a Regular Payment Button

When creating a regular payment button, you should include the shipping address in the request even though it is optional. PayPal will check the shipping address you provide against the customer's list of confirmed addresses. If the address is one of the confirmed addresses, the transaction may be eligible for chargeback protection under PayPal's Seller Protection Policy. See PayPal's Security Center at www.paypal.com for more information.

If you do not send a shipping address in your request, CyberSource will not substitute the billing address for the shipping address when sending the information to PayPal.

To determine if the shipping address was confirmed or unconfirmed, search for the transaction in the Business Center. The transaction details include whether the address was confirmed or unconfirmed.

Specifying Shipping and Handling Charges for a Regular Payment Button

CyberSource and PayPal both have methods for you to specify freight charges (shipping and handling charges). When creating a regular payment button for an order with freight charges, you need to choose which method you want to use to specify the freight amount. You might already be familiar with CyberSource's methods if you process other payment types with CyberSource. The following table describes your choices. CyberSource's methods override any PayPal profile-based shipping and handling settings you have.



Important

You should choose one of these methods and not send CyberSource shipping and handling fields as well as PayPal HTML variables for shipping and handling. If you do, the customer may see unexpected amounts for the shipping and handling when they go to PayPal's site to approve the payment.

Table 2 Methods for Specifying Shipping and Handling Charges

Method	Description
CyberSource: Using a total freight amount	If you are using CyberSource's purchaseTotals_grandTotalAmount field to give a total amount for the order, then you must use the purchaseTotals_freightAmount field to give the total shipping and handling for the order. CyberSource will map this to the PayPal HTML variable <code>shipping</code> . This method overrides any profile-based amount you have set. See below.
CyberSource: Using an item for the freight amount	If you are using item-level information instead of the purchaseTotals_grandTotalAmount field, you must create at least one separate item for the shipping and/or handling amounts. For more details, see the information about creating requests in Getting Started with CyberSource Essentials . CyberSource will sum the amounts for items where the item_#_productCode = <code>shipping_only</code> or <code>shipping_and_handling</code> and assign the value to the PayPal HTML variable <code>shipping</code> . CyberSource will sum the amounts for items where the item_#_productCode = <code>handling_only</code> and assign the value to the PayPal HTML variable <code>handling</code> . This method overrides any profile-based amount you have set. See below.

Table 2 Methods for Specifying Shipping and Handling Charges (Continued)

Method	Description
PayPal: Using a profile-based freight amount	You can configure your PayPal profile to use flat shipping and handling amounts based on the overall order total. See PayPal's <i>Merchant User Manual and Integration Guide</i> for more information.
PayPal: Overriding the profile-based freight amount	You can configure your PayPal account so that you can override the flat profile-based shipping and handling amounts by using specific HTML variables when creating the button. PayPal's <code>shipping</code> , <code>handling</code> , and <code>shipping2</code> HTML variables let you do this. See the descriptions of the corresponding CyberSource API fields <code>paypal_shipping</code> , <code>paypal_handling</code> , and <code>paypal_shipping2</code> in Table 4, page 38 .

Specifying Tax for a Regular Payment Button

CyberSource and PayPal both have methods for you to specify the tax for an order. When creating a regular payment button for an order with tax, you need to choose which method you want to use to specify the tax amount. You might already be familiar with CyberSource's methods if you process other payment types with CyberSource. The following table describes your choices. CyberSource's methods override any PayPal profile-based tax settings you have.



Important

You should choose one of these methods and not send CyberSource tax fields as well as PayPal HTML variables for tax. If you do, the customer may see unexpected amounts for the tax when they go to PayPal's site to approve the payment.

Table 3 Methods for Specifying an Order's Tax

Method	Description
CyberSource: Using a total tax amount	If you are using CyberSource's <code>purchaseTotals_grandTotalAmount</code> field to give a total amount for the order, then you must use the <code>purchaseTotals_taxAmount</code> field to give the total tax for the order. This method overrides any profile-based amount you have set. See below.
CyberSource: Using an item-level tax amount	If you are using item-level information instead of the <code>purchaseTotals_grandTotalAmount</code> field, you must specify the total tax for each item in <code>item_#_taxAmount</code> . See the information about items and grand totals in Getting Started with CyberSource Essentials . This method overrides any profile-based amount you have set. See below.

Table 3 Methods for Specifying an Order's Tax (Continued)

Method	Description
PayPal: Using a profile-based tax amount	You can configure your PayPal profile to use certain tax amounts based on the customer's country and state. See PayPal's <i>Merchant User Manual and Integration Guide</i> for more information.
PayPal: Overriding the profile-based tax amount	You can configure your PayPal account so that you can override the profile-based tax amount by using a the <code>tax</code> HTML variable when creating the button. See the description of the corresponding CyberSource API field <code>paypal_tax</code> in Table 4 , page 38 .

Interpreting CyberSource's Reply

CyberSource returns to you an encrypted version and an unencrypted version of the button in the `paypalButtonCreateReply_encryptedFormData` and `paypalButtonCreateReply_unencryptedFormData` fields. Use the encrypted version when in production and the unencrypted version when troubleshooting or testing your system. See [Appendix A, "Examples for the Simple Order API," on page 56](#) for example replies. You insert the button into your HTML page like this:

```
<html><body>

<!-- Insert your page header -->

Click PayPal Checkout to proceed with your PayPal payment.

This will take you to the PayPal login page.

<!-- Replace the "%s" below with the button, which is a self-contained form that
CyberSource returns to you. -->

%s

</body></html>
```

The encrypted version of the button looks similar to this:

```
<form action="https://www.paypal.com/cgi-bin/webscr" method="post"><input
type="image" src="https://www.paypal.com/en_US/i/btn/x-click-but23.gif"
border="0" name="submit"><input type="hidden" name="cmd" value="_s-xclick"><input
type="hidden" name="encrypted" value="

-----BEGIN PKCS7-----
MIIGTQYJKoZIhvcNAQcDoIIIGPjCCBjoCAQAxxgE6MIIBNgIBADCBnjCBmDELMakGA1UEBhMCVVMxEzARBgNVB
AgTCkNhbgGlm3JuaWExETAPBgNVBACTCFNhbiBKb3NlMRUwEwYDSIb3DQEBAQUABIGAg0SFsADkAz5l03qK8w
e8z3zt86F9IZB8q8J+oCSjmBWgrZdh+VKHgPL2SKuRGrifwXDCGFOJonjYK5EKExeSCmR/eZRUwzIpUmnKAY/

r7Hqzd/e1Is1JuFZ9/iKQO2hK/wRq5VYIL22MGn0fY8GZ6CBmM76ceYojOe/
Xm1pUOLjANQnx2MVMi85hhpMAcM-----END PKCS7-----"></form>
```

**Note**

The encrypted information in the above example has been shortened for illustration. The actual length of the information is about 2000-3000 characters.

The unencrypted version of the button looks similar to this:

```
<form action="https://www.paypal.com/cgi-bin/webscr" method="post"><input
type="image" src="https://https://www.paypal.com/en_US/i/btn/x-click-
but23.gif" border="0" name="submit"><input type="hidden" name="cmd" value="_s-
xclick"><input type="hidden" name="business" value="jdoe@example.com"><input
type="hidden" name="first_name" value="Larry"><input type="hidden" name="last_name"
value="Smith"><input type="hidden" name="address1" value="37 Main St."><input
type="hidden" name="address2" value="Suite 2"><input type="hidden" name="city"
value="Bloomington"><input type="hidden" name="state" value="IN"><input type="hidden"
name="zip" value="47404"><input type="hidden" name="amount" value="0.00"><input
type="hidden" name="tax" value="0"><input type="hidden" name="handling"
value="0.00"><input type="hidden" name="shipping" value="0.00"><input type="hidden"
name="item_number" value="123454"><input type="hidden" name="cancel_return"
value="http://cancel.example.com"><input type="hidden" name="undefined_quantity"
value="1"><input type="hidden" name="quantity" value="5"><input type="hidden"
name="return" value="http://success.example.com"><input type="hidden" name="item_
name" value="book"><input type="hidden" name="shipping2" value="0.00"><input
type="hidden" name="currency_code" value="USD"><input type="hidden" name="bn"
value="CyberSource"><input type="hidden" name="notify_url" value="http://example.com/
ipn"><input type="hidden" name="invoice" value="0000028962"><input type="hidden"
name="custom" value="0000028962,1141312425560167905065,001"></form>
```

Receiving PayPal's POST Response

If you are using PayPal's Payment Data Transfer (PDT), you receive a POST from PayPal when the customer is redirected back to your site after approving a regular payment. See ["Information from PayPal: Payment Data Transfer \(PDT\)," page 11](#) for more information. The POST contains a variable called `st` that indicates whether you can fulfill the order. See ["PDT Reply Variables," page 66](#) for a full list of information you receive.

Request Fields

The following table lists the request fields for creating buttons.

Table 4 Button Create Request Fields

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
billTo_city	City of the billing address.	Both	Required	String (50)
billTo_country	Country of the billing address. Use the two-character ISO codes. See the Support Center for a list of codes.	Both	Required	String (2)
billTo_email	Customer's email address, including the full domain name (for example, jdoe@example.com).	Both	Optional	String (255)
billTo_firstName	Customer's first name.	Both	Required	String (60)
billTo_lastName	Customer's last name.	Both	Required	String (60)
billTo_postalCode	Postal code for the billing address. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits] [dash] [4 digits] Example: 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha] [numeric] [alpha] [space] [numeric] [alpha] [numeric] Example: A1B 2C3	Both	Required if country is U.S. or Canada	String (10)
billTo_state	State or province of the billing address. Use the two-character codes. See the Support Center for a list of valid codes.	Both	Required if country is U.S. or Canada	String (2)
item_#_productCode	Type of product. The default value is default. See " Product Codes ," page 74 for a list of valid values. If you set this to a value other than default, stored_value, or any of the values related to shipping and/or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Regular payment	Optional	String (30)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See "[Sending the Shipping Address for a Regular Payment Button](#)," [page 33](#).

(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
item_#_productName	Product's name. This information is not displayed in the button but is displayed on the transaction details screen in the Business Center. Required if item_#_productCode is NOT default, stored_value, or one of the values related to shipping and/or handling. Note This value is NOT used for the item_name variable in the button; paypal_item_name is used for that; see the field description in this table. You may include both item_#_productName and paypal_item_name in the request.	Regular payment	See description	String (30)
item_#_productSKU	Product's identifier code. This information is not displayed in the button but is displayed in the transaction details screen in the Business Center. Required if item_#_productCode is NOT default, stored_value, or one of the values related to shipping and/or handling. Note This value is not used for the item_number variable in the button; paypal_item_number is used for that; see the field description in this table. You may include both item_#_productSKU and paypal_item_number in the request.	Regular payment	See description	String (30)
item_#_quantity	Quantity of the product being purchased. The default value is 1. Required if item_#_productCode is NOT default, stored_value, or one of the values related to shipping and/or handling. Note This value is NOT used for the quantity variable in the button paypal_quantity is used for that; see the field description in this table. This field is used to calculate the value that goes into the amount variable in the button. You may include both item_#_quantity and paypal_quantity in the request.	Regular payment	See description	Integer (10)
(1) Required if any shipping information is included. (2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See "Sending the Shipping Address for a Regular Payment Button," page 33. (3) Required if shipTo_country is US or CA.				

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
item_#_taxAmount	The sum of these values for all of the items becomes the value for the <code>tax</code> variable in the button. This is the total tax to apply to the product. The value is NOT multiplied by item_#_quantity. This value overrides any profile-based tax you have set. See "Specifying Tax for a Regular Payment Button," page 35 for more details. The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of \$10.00 and taxAmount of \$0.80, and you send another item with unitPrice of \$20.00 and taxAmount of \$1.60, the total amount authorized will be for \$32.40, not \$30.00 with \$2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency. The value cannot be negative.	Regular payment	Optional	String (15)
item_#_unitPrice	Per-item price of the product. You must include either this field or purchaseTotals_grandTotalAmount in your request. See the information about items and grand totals in Getting Started with CyberSource Essentials. This value cannot be negative. This field is used to calculate the value that goes into the <code>amount</code> variable in the button. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount will be truncated at the request level to the correct number of decimal places.	Regular payment	See description	String (15)
linkToRequest	Value that links the current request to a previous authorization request for a debit card or prepaid card. This value is useful when using multiple payment methods to complete an order. For details, see the information about partial authorizations in the Credit Card Services User Guide.	Regular payment	Optional	String (26)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).

(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
merchantID	Your CyberSource merchant ID. Use the same merchantID for evaluation, testing, and production.	Both	Required	String (30)
merchantReferenceCode	Merchant-generated order reference or tracking number. CyberSource suggests you use a unique value for each order. See the information about tracking orders in Getting Started with CyberSource Essentials .	Both	Required	String (50)
paypal_amount	CyberSource suggests you do NOT use this in your request for a regular payment button as you will already be specifying a purchaseTotals_grandTotalAmount or item_#_unitPrice which will be used to populate PayPal's amount variable in the button. See " PayPal's HTML Variables for a Regular Payment Button ," page 32 for more information.	Neither	See description	N/A
paypal_cancel_return	URL of the Web page to show the customer if the customer cancels the regular PayPal payment. Example: <code>http://cancel.example.com</code> .	Regular payment	Required	String (255)
paypal_customer_email	Customer's email address, including the full domain name (for example, <code>jdoe@example.com</code>).	Both	Optional	String (255)
paypal_handling	Do NOT use this field if you are using purchaseTotals_freightAmount or if you have an item with item_#_productCode=handling_only. CyberSource populates the handling variable in the button based on your values for these fields. If you are not using purchaseTotals_freightAmount or an item for handling, paypal_handling becomes the value for the handling variable in the button. This is a flat handling charge for the order. The value is NOT multiplied by the number of items in the order (paypal_quantity). The value overrides any profile-based handling charge you have set. See "Specifying Shipping and Handling Charges for a Regular Payment Button," page 34 for more details.	Regular payment	Optional	String (15)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See "[Sending the Shipping Address for a Regular Payment Button](#)," page 33.

(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
paypal_item_name	This becomes the value for the <code>item_name</code> variable in the button. This is the description of the item. If omitted, the customer will see a field where they can enter a description of the item. Note Although CyberSource has a similar API field (item_#_productName), the <code>item_name</code> variable will NOT be populated based on CyberSource's item_#_productName field. You may include both paypal_item_name and item_#_productName in the request.	Regular payment	Optional	String (127)
paypal_item_number	This becomes the value for the <code>item_number</code> variable in the button. It is not displayed to the customer, but it is passed back to you upon completion of the payment. If omitted, it is not passed back to you. Note Although CyberSource has a similar API field (item_#_productSKU), the <code>item_number</code> variable will NOT be populated based on CyberSource's item_#_productSKU field. You may include both paypal_item_number and item_#_productSKU in the request.	Regular payment	Optional	String (127)
paypal_quantity	This becomes the value for the <code>quantity</code> variable in the button. This is the quantity of items to be purchased. If omitted, the value defaults to 1 and does not show in the payment flow. Make sure to include this if you are providing the paypal_shipping2 field. Note Although CyberSource has a similar API field (item_#_quantity), the <code>quantity</code> variable in the button is NOT populated based on CyberSource's item_#_quantity field.	Regular payment	See description	Integer (no limit)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).

(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
paypal_return	After a customer approves a regular payment at PayPal's site, they are returned to a URL at your Web site, for example: <code>http://success.example.com</code> CyberSource suggests that you set the default URL for regular payments. Note This value overrides the value you may have configured to use with PayPal's Auto Return. See "Enabling Auto Return," page 28.	Regular payment	Required	String (255)
paypal_shipping	Do NOT use this field if you are using purchaseTotals_freightAmount or if you have an item with item_#_productCode=shipping_only or shipping_and_handling. CyberSource populates the shipping variable in the button based on the values for these fields. If you are not using purchaseTotals_freightAmount or an item for shipping and handling, paypal_shipping becomes the value for the shipping variable in the button. This is a flat shipping charge for the order. The value is NOT multiplied by the number of items in the order (paypal_quantity). The value overrides any profile-based handling charge you have set. See "Specifying Shipping and Handling Charges for a Regular Payment Button," page 34 for more details.	Regular payment	Optional	String (15)
paypal_shipping2	This becomes the value for the shipping2 variable in the button. This is the cost of shipping each additional item beyond the first item. PayPal multiplies this value by the number of items in the order minus one (paypal_quantity -1) and then adds it to the values for the shipping variable and the handling variable in the button to give the total shipping and handling charge they display to the customer. See "Specifying Shipping and Handling Charges for a Regular Payment Button," page 34 for more details.	Regular payment	Optional	String (15)

(1) Required if any shipping information is included.
 (2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).
 (3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
paypal_tax	Do NOT use this field if you are using the purchaseTotals_taxAmount or item_#_taxAmount field. CyberSource populates the tax variable in the button based on your values for these fields. If you are not using the purchaseTotals_taxAmount or item_#_taxAmount field, paypal_tax becomes the value for the tax variable in the button. This is a flat tax for the order. The value is NOT multiplied by the number of items in the order (paypal_quantity). The value overrides any profile-based tax charge you have set. See "Specifying Tax for a Regular Payment Button," page 35 for more details.	Regular payment	Optional	String (15)
paypal_undefined_quantity	If set to 2, the customer will be able to edit the quantity at PayPal's site. They will see a quantity field that they must complete. If omitted or set to 0, the customer will not be able to edit the quantity, and a default quantity of 1 will be used.	Regular payment	Optional	Integer (1)
paypalButtonCreateService_buttonType	Type of button to create. Use one of the following values: ■ buy: Regular payment button (PayPal's Buy Now button) ■ shopping_cart: PayPal's Shopping Cart button Note If you are creating a button for a regular payment, CyberSource prefers that you use the buy button. Instructions for creating a shopping_cart button are included in Chapter 4, "Creating a Shopping Cart Button," on page 54.	All	Required	String (30)
paypalButtonCreateService_run	Set this field to true to request paypalButtonCreateService .	Both	Required	String (5)
purchaseTotals_currency	This becomes the value for the currency_code variable in the button. This is the currency used for the order. PayPal currently accepts orders that use USD, CAD, EUR, GBP, or JPY only.	Regular payment	Required	String (5)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).

(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
purchaseTotals_freightAmount	This becomes the value for the <code>shipping</code> variable in the button. This is the total freight amount for the order. If you include this field, purchaseTotals_grandTotalAmount is required. This value overrides any profile-based shipping charge you have set. See "Specifying Shipping and Handling Charges for a Regular Payment Button," page 34 for more details.	Regular payment	Optional	String (15)
purchaseTotals_grandTotalAmount	This becomes the value for the <code>amount</code> variable in the button. This is the grand total for the order. You must include either this field or item_#_unitPrice in your request. See the information about items and grand totals in Getting Started with CyberSource Essentials.	Regular payment	See description	String (15)
purchaseTotals_taxAmount	This becomes the value for the <code>tax</code> variable in the button. This is the total tax for the order. If you include this field, purchaseTotals_grandTotalAmount is required. This value overrides any profile-based tax charge you have set. See "Specifying Tax for a Regular Payment Button," page 35 for more details.	Regular payment	Optional	String (15)
shipTo_city	City to which to ship the product.	Regular payment	Optional ^(1, 2)	String (50)
shipTo_country	Country to which to ship the product. Use the two-character ISO codes. See the Support Center for a list of codes.	Regular payment	Optional ⁽²⁾	String (2)
shipTo_firstName	First name of person receiving the product.	Regular payment	Optional ⁽²⁾	String (60)
shipTo_lastName	Last name of person receiving the product.	Regular payment	Optional ⁽²⁾	String (60)

(1) Required if any shipping information is included.
(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).
(3) Required if **shipTo_country** is US or CA.

Table 4 Button Create Request Fields (Continued)

Request Field	Description	Use With Button	Required/Optional	Data Type & Length
shipTo_postalCode	Postal code for the shipping address. The postal code must consist of 5 to 9 digits. If the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits] [dash] [4 digits] Example: 12345-6789 If the shipping country is Canada, the 6-digit postal code must follow this format: [alpha] [numeric] [alpha] [space] [numeric] [alpha] [numeric] Example: A1B 2C3	Regular payment	Optional ^(2, 3)	String (10)
shipTo_shippingMethod	Shipping method for the product. For example, FEDEX.	Regular payment	Optional	String (10)
shipTo_state	State or province to which to ship the product. Use the two-character codes. See the Support Center for a list of valid codes.	Regular payment	Optional ^(2, 3)	String (2)
shipTo_street1	First line of the address to which to ship the product.	Regular payment	Optional ^(1, 2)	String (60)
shipTo_street2	Second line of the address to which to ship the product.	Regular payment	Optional ⁽²⁾	String (60)

(1) Required if any shipping information is included.

(2) Optional, but CyberSource encourages you to send the shipping address to increase chances that the transaction will be covered under PayPal's Seller Protection Policy. See ["Sending the Shipping Address for a Regular Payment Button," page 33](#).

(3) Required if **shipTo_country** is US or CA.

Reply Fields

The following table describes the reply fields for creating a button. The fields you receive are the same for either type of button.

Table 5 Reply Fields for Button Create

Reply Field	Description	Data Type & Length
decision	Summarizes the result of the overall request. The field can contain one of the following values: ■ ACCEPT ■ ERROR ■ REJECT	String (6)
invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Essentials .	String (100)
merchantReferenceCode	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.	String (50)
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Essentials .	String (100)
paypalButtonCreateReply_buttonType	Type of button created. This field will contain one of the following values: ■ buy: Regular Buy Now payment button ■ shopping_cart: Shopping Cart button. See Chapter 4, "Creating a Shopping Cart Button," on page 54.	String (30)
paypalButtonCreateReply_encryptedFormData	Encrypted version of the button.	String (no length limit)
paypalButtonCreateReply_reasonCode	A numeric value corresponding to the result of the button creation request. See "Reason Codes," page 51 for a list of possible values.	Integer (5)
paypalButtonCreateReply_reconciliationID	Reference number for the transaction that you use to reconcile your transactions.	String (60)
paypalButtonCreateReply_requestDateTime	Time of the button creation request. The format is <code>YYYY-MM-DDThh:mm:ssZ</code> . For example, <code>2003-08-11T22:47:57Z</code> is equal to August 11, 2003, at 10:47:57 P.M. The T separates the date and the time. The Z indicates UTC.	String (20)

Table 5 Reply Fields for Button Create (Continued)

Reply Field	Description	Data Type & Length
paypalButtonCreateReply_unencryptedFormData	Unencrypted version of the button.	String (no length limit)
reasonCode	Numeric value corresponding to the result of the overall request. See "Reason Codes," page 51 for a list of possible values.	Integer (5)
requestID	Unique identifier for the request.	String (26)
requestToken	Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information such as an account or card verification number. The string can contain a maximum of 256 characters.	String (256)

Processing a Credit

You can perform a credit for a regular payment by using **paypalCreditService**. For general information about refunding PayPal payments, see ["PayPal Credits," page 10](#).



Important

You must perform the credit within 60 days of the payment request.

At this time, you can perform only one credit for an order, for either a partial amount or the full amount of the payment.

To request the service, send a request with **paypalCreditService_run=true**. A PayPal credit is a follow-on service. It uses the **requestID** returned from a previous **paypalButtonCreateService** request to link the credit to the payment. Send the request ID value in the **paypalCreditService_paypalPaymentRequestID** field. CyberSource uses these values to look up the customer's billing and account information from the original payment, so you do not have to supply those fields in the **paypalCreditService** request. See [Appendix A, "Examples for the Simple Order API," on page 56](#) for example requests and replies.

When requesting the service, do not include any other ICS services in the request.

Request Fields

The following table lists the request fields for processing a credit.

Table 6 PayPal Credit Request Fields

Request Field	Description	Required / Optional	Data Type & Length
item_#_productCode	Type of product. The default value is <code>default</code> . See "Product Codes," page 74 for a list of valid values.	Optional	String (30)
item_#_productName	Product's name.	Optional	String (30)
item_#_productSKU	Product's identifier code.	Optional	String (30)
item_#_quantity	Quantity of the product being returned.	Optional	Integer (10)
item_#_taxAmount	Total tax to apply to the product.	Optional	String (15)
item_#_unitPrice	Amount of the credit. At this time, you can perform only one credit for an order, for either a partial amount or the full amount of the payment. You must include either this field or purchaseTotals_grandTotalAmount in your request. See the information about items and grand totals in Getting Started with CyberSource Essentials . This value cannot be negative.	See description	String (15)
merchantID	Your CyberSource merchant ID. Use the same merchantID for evaluation, testing, and production.	Required	String (30)
merchantReferenceCode	Merchant-generated order reference or tracking number. See the information about order tracking in Getting Started with CyberSource Essentials .	Required	String (50)
orderRequestToken	The request token value returned from a previous request. This value links the previous request to the current follow-on request. This field is an encoded string that does not contain any confidential information, such as account numbers or card verification numbers. The string can contain a maximum of 256 characters.	Required	String (256)
paypalCreditService_payPalPaymentRequestID	Request ID from the payment reply.	Required	String (26)
paypalCreditService_payPalPaymentRequestToken	The requestToken value returned from a previous request for paypalButtonCreateService . 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.	Optional	String (256)
paypalCreditService_run	Set to <code>true</code> to request paypalCreditService .	Required	String (5)

Table 6 PayPal Credit Request Fields (Continued)

Request Field	Description	Required / Optional	Data Type & Length
purchaseTotals_currency	Currency used for the order. PayPal currently accepts orders that use USD, CAD, EUR, GBP, or JPY only.	Required	String (5)
purchaseTotals_grandTotalAmount	Amount of the credit. At this time, you can perform only one credit for an order, for either a partial amount or the full amount of the payment. You must include either this field or item_#_unitPrice in your request. See the information about items and grand totals in Getting Started with CyberSource Essentials . This value cannot be negative.	See description	String (15)

Reply Fields

The following table lists the reply fields for processing a credit.

Table 7 PayPal Credit Reply Fields

Reply Field	Description	Data Type & Length
decision	Summarizes the result of the overall request. The field can contain one of the following values: ■ ACCEPT ■ ERROR ■ REJECT	String (6)
invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Essentials .	String (100)
merchantReferenceCode	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.	String (50)
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Essentials .	String (100)
paypalCreditReply_amount	Amount of the credit.	String (15)
paypalCreditReply_reasonCode	A numeric value corresponding to the result of the PayPal credit request. See "Reason Codes," page 51 for a list of possible values.	Integer (5)

Table 7 PayPal Credit Reply Fields (Continued)

Reply Field	Description	Data Type & Length
paypalCreditReply_reconciliationID	Reference number for the transaction that you use to reconcile your transactions.	String (60)
paypalCreditReply_requestDateTime	Time of the PayPal credit. The format is <i>YYYY-MM-DDThh:mm:ssZ</i> . For example, <i>2003-08-11T22:47:57Z</i> is equal to August 11, 2003, at 10:47:57 P.M. The T separates the date and the time. The Z indicates UTC.	String (20)
purchaseTotals_currency	Currency used for the order.	String (5)
reasonCode	Numeric value corresponding to the result of the overall request. See "Reason Codes," page 51 for a list of possible values.	Integer (5)
requestID	Unique identifier for the request.	String (26)
requestToken	Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information such as an account or card verification number. The string can contain a maximum of 256 characters.	String (256)

Reason Codes

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



Important

Because CyberSource may add reply fields and reason codes at any time, proceed as follows:

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

Table 8 Reason Codes

Reason Code	Description
100	Successful transaction.
101	The request is missing one or more required fields. Possible action: See the reply fields missingField_0...N for which fields are missing. Resend the request with the complete information. See the information about missing and invalid fields in Getting Started with CyberSource Essentials.
102	One or more fields in the request contains invalid data. Possible action: See the reply fields invalidField_0...N for which fields are invalid. Resend the request with the correct information. See the information about missing and invalid fields in Getting Started with CyberSource Essentials.
150	Error: General system failure. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
151	Error: The request was received but there was a server timeout. This error does not include timeouts between the client and the server. 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.
152	Error: The request was received, but a service did not finish running in time. 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.
223	A request was made to credit an order for which there is no corresponding, unused payment record. Occurs if there was not a previously successful paypalButtonCreateService request, or if the previously successful payment has already been used by another paypalCreditService request. Possible action: Verify that have not already credited this payment, or verify that you are crediting the correct payment.
233	General decline by the processor. Possible action: Request a different form of payment.
234	There is a problem with your CyberSource merchant configuration. Possible action: Do not resend the request. Contact Customer Support to correct the configuration problem.
236	Processor failure. Possible action: Wait a few minutes and resend the request.
239	The requested transaction amount must match the previous transaction amount. Possible action: Correct the amount and resend the request.

Table 8 Reason Codes (Continued)

Reason Code	Description
241	The request ID is invalid. Possible action: Verify you are using the correct request ID.
250	Error: The request was received, but there was a timeout at the payment processor. Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center.

Testing

You can use CyberSource's regular testing environment for sending test transactions. If using the Simple Order API, make sure your CyberSource client is configured to send transactions to the test server. See the documentation for your client for information about how to do this.

The buttons generated by CyberSource's test system submit the form to PayPal's Sandbox test environment (<https://www.sandbox.paypal.com>). You need to set up your Sandbox account as soon as you begin creating your implementation. See PayPal's *Sandbox User Guide* for instructions.

Always log in to the Sandbox *before* clicking any of your test buttons. Then when you click a test button, you will automatically go to the Sandbox site, which mimics the live PayPal site that the customer logs in to.

Creating a Shopping Cart Button

CyberSource's recommended solution is to use the regular payment button where the button type = `buy`. This is PayPal's Buy Now button, which uses an aggregate amount for the total order. However, if you want to specify information about the individual items the customer is purchasing, you can create a Shopping Cart button instead.



Note

You should still read the information about creating a regular Buy Now button as this appendix covers only the differences between creating a Shopping Cart button and a regular Buy Now button. See [Chapter 3, "Creating Buttons,"](#) on [page 32](#).

- Step 1** In your request to create the button, set the button type to `shopping_cart` instead of `buy`.
- Step 2** To specify the information about the different items, use the numbered item-specific fields listed below. Start the numbering with 1. See the example requests below. All of the fields are optional. See PayPal's *Merchant User Manual and Integration Guide* for more information about `on0_#` and the similar fields.

<code>paypal_item_name_#</code>	<code>paypal_shipping_#</code>	<code>on0_#</code>
<code>paypal_item_number_#</code>	<code>paypal_handling_#</code>	<code>os0_#</code>
<code>paypal_quantity_#</code>	<code>paypal_tax_#</code>	<code>on1_#</code>
<code>paypal_amount_#</code>	<code>paypal_shipping2_#</code>	<code>os1_#</code>



Note

Do not include any of CyberSource's standard API fields for items (for example, do not use `item_0_unitPrice`). Also, you do not need to provide a grand total for the offer.

- Step 3** If you want to specify cart-wide tax or handling charges, use these fields:
- **`paypal_tax_cart`:** This value overrides any item-level (`paypal_tax_#`) values or profile-based tax.
 - **`paypal_handling_cart`:** This value is added to any item-level shipping or handling charges you have specified with `paypal_shipping_#` and/or `paypal_handling_#` values.

- Step 4** Send CyberSource the request as you would for a regular payment button.
The reply you receive contains the same API reply fields as for a regular payment button.

If you have configured your CyberSource account so that you are forwarded your IPN messages, you will see separate numbered IPN variables for each item. The variables are included in the list in ["IPN Variables for Regular Payments," page 67](#).

Examples for the Simple Order API

**Note**

The buttons in the examples include line breaks to make it easier to see the different variables and their values. The actual buttons will not include line breaks. The encrypted buttons in the examples have been shortened for illustration. The actual length of the encrypted information is about 2000-3000 characters.

Name-Value Pair Examples

Creating a Regular Payment Button

Example Request

```

paypalButtonCreateService_run=true
paypalButtonCreateService_buttonType=buy
merchantID=infodev
merchantReferenceCode=482046C3A7E9XYZ
billTo_firstName=Joe
billTo_lastName=Smith
billTo_street1=1040 Elm St.
billTo_city=San Jose
billTo_state=CA
billTo_postalCode=95127
billTo_country=US
shipTo_firstName=Joe
shipTo_lastName=Smith
shipTo_street1=1040 Elm St.
shipTo_city=San Jose
shipTo_state=CA
shipTo_postalCode=95127
shipTo_country=US
purchaseTotals_grandTotalAmount=25.99
purchaseTotals_taxAmount=2.55
purchaseTotals_freightAmount=4.95
purchaseTotals_currency=USD
paypal_cancel_return=http://paypalcancel.example.com
paypal_return=http://paypalsuccess.example.com
paypal_item_name=Nouveau Lamp
paypal_item_number=3362710

```

Example Reply

```

requestID=0305782650000167905080
merchantReferenceCode=482046C3A7E9XYZ
decision=ACCEPT
reasonCode=100
payPalButtonCreateReply_reasonCode=100
payPalButtonCreateReply_buttonType=buy
payPalButtonCreateReply_amount=33.49
purchaseTotals_currency=USD
payPalButtonCreateReply_requestDateTime=2005-04-27T18:49:55Z
payPalButtonCreateReply_reconconciliationID=RYXWMQX04MC9
payPalButtonCreateReply_unencryptedFormData=
<form action="https://www.paypal.com/cgi-bin/webscr" method="post">
<input type="image" src="https://https://www.paypal.com/en_US/i/btn/x-click-
but23.gif" border="0" name="submit">
<input type="hidden" name="cmd" value="_s-xclick">
<input type="hidden" name="business" value="a.person@example.com">
<input type="hidden" name="first_name" value="Joe">
<input type="hidden" name="Smith" value="Smith">
<input type="hidden" name="address1" value="1040 Elm St">
<input type="hidden" name="city" value="San Jose">
<input type="hidden" name="state" value="CA">
<input type="hidden" name="zip" value="95127">
<input type="hidden" name="amount" value="25.99">
<input type="hidden" name="tax" value="2.55">
<input type="hidden" name="handling" value="0.00">
<input type="hidden" name="shipping" value="4.95">
<input type="hidden" name="item_number" value="3362710">
<input type="hidden" name="cancel_return" value="http://paypalcancel.example.com">
<input type="hidden" name="undefined_quantity" value="0">
<input type="hidden" name="quantity" value="0">
<input type="hidden" name="return" value="http://paypalsuccess.example.com">
<input type="hidden" name="item_name" value="Nouveau Lamp">
<input type="hidden" name="shipping2" value="0.00">
<input type="hidden" name="currency_code" value="USD">
<input type="hidden" name="bn" value="CyberSource">
<input type="hidden" name="notify_url" value="http://example.com/ipn">
<input type="hidden" name="invoice" value="RYXWMQX04MC9">
<input type="hidden" name="custom"
value="RYXWMQX04MC9,0305782650000167905080,482046C3A7E9XYZ"></
form>payPalButtonCreateReply_encryptedFormData=
<form action="https://www.paypal.com/cgi-bin/webscr" method="post">
<input type="image" src="https://https://www.paypal.com/en_US/i/btn/x-click-
but23.gif" border="0" name="submit">
<input type="hidden" name="cmd" value="_s-xclick">
<input type="hidden" name="encrypted" value=
"-----BEGIN PKCS7-----
MIIGTQYJKoZIhvcNAQcDoIIGPjCCBjoCAQAxxgE6MIIBNgIBADCBnjCBmDELMAkGA1UEBhMCVVMxEzARBgNVB
AgTCKNhbg1mb3JuaWExETAPBgNVBACTFNhb3N1MRUwEwYDSIb3DQEBAQUABIGAg0SFsADkAz5l03qK8w
e8z3zt86F9IZB8q8J+oCSjmBWgrZdh+VKHgPL2SKuRGrifwXDCGFOJonjYK5EKEExeSCmR/eZRUwzIpUmnKAY/
r7Hqzd/e1Is1JuFZ9/iKQ02hK/wRq5VYIL22MGn0fY8GZ6CBmM76ceYojOe/
Xm1pUOLjANQnx2MVMi85hhpMAcaM
-----END PKCS7-----"></form>

```

Processing a Credit

Example Request

```
paypalCreditService_run=true  
merchantID=infodev  
merchantReferenceCode=482046C3A7E94F3  
paypalCreditService_payPalPaymentRequestID=0305782650000167905052  
purchaseTotals_currency=USD  
purchaseTotals_grandTotalAmount=10.00
```

Example Reply

```
requestID=0305782650000167943227  
merchantReferenceCode=482046C3A7E94F5  
decision=ACCEPT  
reasonCode=100  
paypalCreditReply_reasonCode=100  
paypalCreditReply_requestDateTime=2005-06-19T18:49:55Z  
paypalCreditReply_reconconciliationID=RYX9483QX04WC4  
paypalCreditReply_amount=10.00  
purchaseTotals_currency=USD
```

Creating a Shopping Cart Button

Example Request

```
paypalButtonCreateService_run=true
paypalButtonCreateService_buttonType=shopping_cart
merchantID=infodev
merchantReferenceCode=482046C3A7E94F5
paypal_cancel_return=http://paypalcancel.example.com
paypal_return=http://paypalsuccess.example.com
paypal_item_name_1=Book
paypal_item_number_1=999999
paypal_amount_1=25.95
paypal_quantity_1=1
paypal_shipping_1=3.95
paypal_shipping2_1=0.00
paypal_handling_1=0.00
paypal_tax_1=0.00
paypal_item_name_2=DVD
paypal_item_number_2=777777
paypal_amount_2=18.95
paypal_quantity_2=1
paypal_shipping_2=0.00
paypal_shipping2_2=0.00
paypal_handling_2=0.00
paypal_tax_2=0.00
// Include the API fields for the billing
// and shipping information here
```

XML Examples

Creating a Regular Payment Button

Example Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <billTo>
    <firstName>Joe</firstName>
    <lastName>Smith</lastName>
    <street1>1040 Elm St.</street1>
    <city>San Jose</city>
    <state>CA</state>
    <postalCode>95127</postalCode>
    <country>US</country>
  </billTo>
  <shipTo>
    <firstName>Joe</firstName>
    <lastName>Smith</lastName>
    <street1>1040 Elm St.</street1>
    <city>San Jose</city>
    <state>CA</state>
    <postalCode>95127</postalCode>
    <country>US</country>
  </shipTo>
  <purchaseTotals>
    <currency>USD</currency>
    <taxAmount>2.55</taxAmount>
    <grandTotalAmount>25.99</grandTotalAmount>
    <freightAmount>4.95</freightAmount>
  </purchaseTotals>
  <paypal>
    <cancel_return>http://paypalcancel.example.com</cancel_return>
    <return>http://paypalsuccess.example.com</return>
    <item_name>Nouveau Lamp</item_name>
    <item_number>3362710</item_number>
  </paypal>
  <paypalButtonCreateService run="true">
    <buttonType>buy</buttonType>
  </paypalButtonCreateService>
</requestMessage>
```

Example Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.23">
  <c:merchantReferenceCode>482046C3A7E94F5
</c:merchantReferenceCode>
  <c:requestID>0305782650000167905080</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:paypalButtonCreateReply>
    <c:reasonCode>100</c:reasonCode>
    <c:encryptedFormData>
<form action="https://www.paypal.com/cgi-bin/webscr" method="post">
<input type="image" src="https://https://www.paypal.com/en_US/i/btn/x-click-
but23.gif" border="0" name="submit">
<input type="hidden" name="cmd" value="_s-xclick">
<input type="hidden" name="encrypted" value=
"-----BEGIN PKCS7-----
MIIGTQYJKoZIhvcNAQcDoIIIGPjCCBjoCAQAxggE6MIIBNgIBADCBnjCBmDELMakGA1UEBhMCVVMxEzARBgNVB
AgTCkNhbgGmb3JuaWExETAPBgNVBACTCFNhbiBkb3NlMRUwEwYDSIb3DQEBAQUABIGAg0SFsADkAz5l03qK8w
e8z3zt86F9IZB8q8J+oCSjmBWgrZdh+VKHgPL2SKuRGrifwXDCGF0JonjYK5EKExeSCmR/eZRuwzIpUmnKAY/
r7Hqzd/e1IslJuFZ9/iKQO2hK/wRq5VYIL22MGn0fY8GZ6CBmM76ceYojOe/
Xm1pUOLjANQnx2MVMi85hhpMacaM
-----END PKCS7-----"></form>
    </c:encryptedFormData>
    <c:unencryptedFormData>
<form action="https://www.paypal.com/cgi-bin/webscr" method="post">
```

```

<input type="image" src="https://https://www.paypal.com/en_US/i/btn/x-click-
but23.gif" border="0" name="submit">
<input type="hidden" name="cmd" value="_s-xclick">
<input type="hidden" name="business" value="a.person@example.com">
<input type="hidden" name="first_name" value="Joe">
<input type="hidden" name="Smith" value="Smith">
<input type="hidden" name="address1" value="1040 Elm St">
<input type="hidden" name="city" value="San Jose">
<input type="hidden" name="state" value="CA">
<input type="hidden" name="zip" value="95127">
<input type="hidden" name="amount" value="25.99">
<input type="hidden" name="tax" value="2.55">
<input type="hidden" name="handling" value="0.00">
<input type="hidden" name="shipping" value="4.95">
<input type="hidden" name="item_number" value="3362710">
<input type="hidden" name="cancel_return" value="http://paypalcancel.example.com">
<input type="hidden" name="undefined_quantity" value="0">
<input type="hidden" name="quantity" value="0">
<input type="hidden" name="return" value="http://paypalsuccess.example.com">
<input type="hidden" name="item_name" value="Nouveau Lamp">
<input type="hidden" name="shipping2" value="0.00">
<input type="hidden" name="currency_code" value="USD">
<input type="hidden" name="bn" value="CyberSource">
<input type="hidden" name="notify_url" value="http://example.com/ipn">
<input type="hidden" name="invoice" value="RYXWMQX04MC9">
<input type="hidden" name="custom"
value="RYXWMQX04MC9,0305782650000167905080,482046C3A7E94F5"></form>
  </c:unencryptedFormData>
  <c:requestDateTime>=2005-04-27T18:49:55Z</c:requestDateTime>
  <c:reconciliationID>RYXWMQX04MC9</c:reconciliationID>
  <c:buttonType>buy</c:buttonType>
</c:paypalButtonCreateReply>
</c:replyMessage>

```

Processing a Credit

Example Request

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.37">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>482046C3A7E94F3</merchantReferenceCode>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>10.00</grandTotalAmount>
  </purchaseTotals>
  <paypalCreditService run="true">
    <paypalPaymentRequestID>0305782650000167905052</paypalPaymentRequestID>
  </paypalCreditService>
</requestMessage>

```

Example Reply

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.37">
  <c:merchantReferenceCode>482046C3A7E94F3
</c:merchantReferenceCode>
  <c:requestID>0305782650000167943227</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:paypalCreditReply>
    <c:reasonCode>100</c:reasonCode>
    <c:amount>10.00</c:amount>
    <c:requestDateTime>2005-06-19T18:49:55Z</c:requestDateTime>
    <c:reconconciliationID>RYX9483QX04WC4</c:reconconciliationID>
  </c:paypalCreditReply>
</c:replyMessage>

```

Creating a Shopping Cart Button

Example Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <billTo>
    <!-- fill in billing information here -->
  </billTo>
  <shipTo>
    <!-- fill in shipping information here -->
  </shipTo>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <paypal>
    <item_name_1>Book</item_name_1>
    <item_number_1>9999999</item_number_1>
    <amount_1>25.95</amount_1>
    <quantity_1>1</quantity_1>
    <shipping_1>3.95</shipping_1>
    <shipping2_1>0.00</shipping2_1>
    <handling_1>0.00</handling_1>
    <tax_1>0.00</tax_1>
    <item_name_2>DVD</item_name_2>
    <item_number_2>7777777</item_number_2>
    <amount_2>18.95</amount_2>
    <quantity_2>1</quantity_2>
    <shipping_2>0.00</shipping_2>
    <shipping2_2>0.00</shipping2_2>
    <handling_2>0.00</handling_2>
    <tax_2>0.00</tax_2>
  </paypal>
  <paypalButtonCreateService run="true">
    <buttonType>shopping_cart</buttonType>
  </paypalButtonCreateService>
</requestMessage>
```

PayPal Reply Variables

PDT Reply Variables

if you are using Payment Data Transfer, you receive these variables from PayPal in the POST when you create a regular payment button. See ["Information from PayPal: Payment Data Transfer \(PDT\)," page 11](#) for more information.

Table 9 PayPal's PDT Reply Variables

Variable	Description
tx	Transaction ID/Payment Data Transfer token. You can use the token to receive additional transaction information from PayPal. For more information, see PayPal's <i>Merchant User Manual and Integration Guide</i> .
st	Status variable indicating whether the payment was successful and whether you can ship the goods. This variable will contain one of the following values: ■ Completed: Payment is complete. ■ Denied: You denied the payment. ■ Failed: Payment failed. Only occurs if the payment comes from the customer's bank account. ■ Pending: Payment is pending.
amt	Total amount of the payment.
cc	Currency code.
cm	During the button creation, CyberSource populates this field with various identifiers, and PayPal echoes the field in the PDT reply. The field contains three identifiers separated by commas. If you are using the Simple Order API, the three identifiers are the paypalButtonCreateReply_reconciliationID from CyberSource's reply, the requestID from CyberSource's reply, and the merchantReferenceCode that you provided in the request.
sig	PayPal's signature.

IPN Variables for Regular Payments

IPN messages contain only alphanumeric characters. Unless otherwise specified, the maximum field length for each IPN variable returned is 127 characters. Special characters are translated into URL encoding format. For example, the colon ":" in `http://` is translated to `%3A` in the IPN message. A sample IPN message looks like this (line breaks have been added for clarity):

```
status=Completed&
address_zip=47405&
mc_shipping=0.00&
mc_handling=0.00&
first_name=Larry&
mc_fee=1.49&
address_name=Larry+Smith&
notify_version=1.6&
custom=0000015593%2C1036035196510167905065&
payer_status=verified&
business=jdoe%40companyABC.com&
address_country=United+States&
num_cart_items=1&
mc_handling1=0.00&
address_city=bloomington&
payer_email=lsmith%40customer.com&
verify_sign=A0SZ-01CLAWJfjd5.kpi9BJKjYluAIQAZfebUT8pdPM2vJIhPr9AHE-i&
mc_shipping1=0.00&
tax1=0.00&
txn_id=1LM18508KU470513M&
payment_type=instant&
last_name=Smith&
receiver_email=jdoe%companyABC.com&
item_name1=Book&
address_state=IN&
payment_fee=1.49&
quantity1=1&
receiver_id=8CZZHSZRQUHUA&t
xn_type=cart&

mc_currency=USD&
mc_gross_1=41.00&
test_ipn=1&
payment_gross=41.00
```

Table 10 IPN Variables for Regular Payments

Variable	Description	Max Length
address_city	City of customer's street address.	40
address_country	Country of customer's address.	64
address_name	Name used with address (included when the customer provides a gift address).	128
address_state	State of customer's address.	40
address_status	Whether the address is confirmed. This field will contain one of the following values: ■ confirmed: Customer provided a confirmed address ■ unconfirmed: Customer provided an unconfirmed address	
address_street	Customer's street address.	200
address_zip	Postal code of customer's address.	20
business	Merchant's email address or account ID. Equivalent to receiver_email if payment is sent to primary account, and essentially an echo of the business variable that was passed to PayPal in the button	127
custom	CyberSource populates this field with various identifiers, and PayPal echoes the field in the IPN message. The field contains six identifiers separated by commas. If you are using the Simple Order API, the first three identifiers are the paypalButtonCreateReply_reconciliationID from CyberSource's reply, the requestID from CyberSource's reply, and the merchantReferenceCode that you provided in the request. The last three identifiers are CyberSource internal tracking values.	255
exchange_rate	Exchange rate used if a currency conversion occurred.	
first_name	Customer's first name.	64
invoice	CyberSource populates this field with an identifier, and PayPal echoes the field in the IPN message. If you use the Simple Order API, the identifier in CyberSource's reply is paypalButtonCreateReply_reconciliationID .	255
item_name and item_name#	Item name passed by you or entered by the customer (if not passed by you). If this is a shopping cart transaction, PayPal appends the number of the item (item_name1, and so on).	127
item_number and item_number#	Pass-through variable for you to track purchases that is passed back to you at completion of payment. Not returned if not included in the button.	127
last_name	Customer's last name.	64

Table 10 IPN Variables for Regular Payments (Continued)

Variable	Description	Max Length
mc_currency	Currency of the payment. The value will be USD, CAD, EUR, GBP, or JPY.	
mc_fee	Transaction fee for the payment. The mc_gross minus mc_fee will equal the amount deposited into the receiver_email account. Equivalent to payment_fee for USD payments. If this amount is negative, it indicates a refund or reversal, and the refund or reversal can be for the full or partial amount of the original transaction.	
mc_gross and mc_gross_#	Full amount of the customer's payment before transaction fee is subtracted. Equivalent to payment_gross for USD payments. If this amount is negative, it indicates a refund or reversal, and the refund or reversal can be for the full or partial amount of the original transaction. For a shopping cart transaction, PayPal appends the number of the item (mc_gross_1, and so on). The sum of all the mc_gross_# values should total mc_gross.	
mc_handling and mc_handling#	Total handling amount associated with the transaction. For a shopping cart transaction, PayPal appends the number of the item (mc_handling1, and so on). For a shopping cart transaction, the handling_cart cart-wide variable is also included in the mc_handling variable; for this reason, the sum of the mc_handling# values may not be equal to mc_handling.	
mc_shipping and mc_shipping#	Total shipping amount associated with the transaction. For a shopping cart transaction, this is the combined total of the paypal_shipping and paypal_shipping2 API fields that you pass to CyberSource, where # is the number of the item. The mc_shipping# is only returned when you apply a shipping amount for a specific item. Because profile shipping may apply, the sum of the mc_shipping# values may not equal mc_shipping.	
notify_version	Version of the IPN message. Example: 1.6	
num_cart_items	For a shopping cart transaction, number of items in the cart.	
option_name1 and option_name1_#	Option 1 name as requested by you. For a shopping cart transaction, PayPal appends the number of the item (option_name1_1, and so on).	64
option_name2 and option_name2_#	Option 2 name as requested by you. For a shopping cart transaction, PayPal appends the number of the item (option_name2_1, and so on).	64
option_selection1 and option_selection1_#	Option 1 choice as entered by the customer. For a shopping cart transaction, PayPal appends the number of the item (option_selection1_1, and so on).	200

Table 10 IPN Variables for Regular Payments (Continued)

Variable	Description	Max Length
option_selection2 and option_selection2_#	Option 2 choice as entered by the customer. For a shopping cart transaction, PayPal appends the number of the item (option_selection2_1, and so on).	200
parent_txn_id	In the case of a refund, reversal, or canceled reversal, this variable contains the txn_id of the original transaction, while txn_id contains a new ID for the new transaction. See the description of txn_id in this table.	17
payer_business_name	Customer's company name.	127
payer_email	Customer's primary email address. Use this email to provide any credits.	127
payer_id	PayPal's unique customer ID.	13
payer_status	Whether the customer has a verified account. This field will contain one of the following values: ■ Verified: Customer has a Verified PayPal account ■ Unverified: Customer has an Unverified PayPal account	
payment_date	PayPal's time stamp. Example: 18:30:30 Jan 1, 2000 PST.	
payment_fee	USD transaction fee for the payment. The payment_gross minus payment_fee will equal the amount deposited into the receiver_email account. Will be empty for non-USD payments. This is a legacy field replaced by mc_fee. If this amount is negative, it indicates a refund or reversal, and the refund or reversal can be for the full or partial amount of the original transaction.	
payment_gross	Full USD amount of the customer's payment before the transaction fee is subtracted. Will be empty for non-USD payments. This is a legacy field replaced by mc_gross. If this amount is negative, it indicates a refund or reversal, and the refund or reversal can be for the full or partial amount of the original transaction.	

Table 10 IPN Variables for Regular Payments (Continued)

Variable	Description	Max Length
payment_status	Status of the payment. This field can contain one of the following values: ■ Canceled-Reversal: Reversal has been canceled. For example, you won a dispute with the customer and the funds for the reversed transaction have been returned to you. ■ Completed: If referring to an initial purchase, this means the payment has been completed and the funds have successfully been added to your account balance. ■ Denied: You denied the payment. This happens only if the payment was previously pending due to one of the reasons specified by the <code>pending_reason</code> variable. See below. ■ Failed: Payment has failed. This happens only if the payment was attempted from the customer's bank account. ■ Pending: See the <code>pending_reason</code> variable for the reason why the payment is pending. You will receive another IPN when the status changes to Completed, Failed, or Denied. ■ Refunded: You refunded the payment. ■ Reversed: Payment was reversed due to a chargeback or other type of reversal. The funds have been debited from your account balanced and returned to the customer. Look for the reason for the reversal in the <code>reason_code</code> variable. See below.	
payment_type	Indicates whether the payment is instant or delayed. This field will contain one of the following values: ■ check: Electronic check ■ instant: Credit card, PayPal balance, or Instant Transfer	

Table 10 IPN Variables for Regular Payments (Continued)

Variable	Description	Max Length
pending_reason	Reason if payment_status=Pending. This field contains one of these values: ■ address: Customer did not include a confirmed shipping address and you have your Payment Receiving Preferences set to manually accept or deny each of these payments. ■ echeck: Electronic check has not cleared yet. ■ intl: You hold a non-U.S. account and do not have a withdrawal method. You must manually accept or deny this payment from your PayPal Account Overview. ■ multi-currency: You do not have a balance in the currency sent, and you do not have your Payment Receiving Preferences set to automatically convert and accept the payment. You must manually accept or deny the payment. ■ other: Payment is pending for a reason other than the other reasons listed here. Contact PayPal Customer Service. ■ unilateral: The payment was made to an email address that is not yet registered or confirmed. ■ upgrade: Payment was made via credit card and you must upgrade your account to Business or Premier status to receive the funds. You could also get this status because you have reached the monthly limit for transactions on your account. ■ verify: You are not yet verified. You must verify your account before you can accept the payment.	
quantity and quantity#	Quantity passed by you or entered by the customer (if not passed by you). For a shopping cart transaction, PayPal appends the number of the item (quantity1, and so on).	127
reason_code	Reason for a refund or reversal. This field is returned only if payment_status=Reversed or Refunded. This field contains one of these values: ■ buyer_complaint: A reversal has occurred because of a complaint from your customer about the transaction. ■ chargeback: A reversal has occurred because of a chargeback by the customer. ■ guarantee: A reversal has occurred because the customer triggered a money-back guarantee. ■ refund: A reversal has occurred because you have given the customer a refund. ■ other: A reversal has occurred for a reason other than those stated above.	

Table 10 IPN Variables for Regular Payments (Continued)

Variable	Description	Max Length
receiver_email	Merchant's primary email address. If the payment is sent to a non-primary email address on your PayPal account, the receiver_email will still be your primary email.	127
receiver_id	Merchant's unique account ID (same as the referral ID).	13
settle_amount	Amount deposited into the account's primary balance after a currency conversion either by automatic conversion (through your Payment Receiving Preferences) or manual conversion (through manually accepting a payment).	
settle_currency	Currency of settle_amount.	
tax and tax#	Amount of tax charged on the payment. For a shopping cart transaction, PayPal appends the number of the item (tax1, and so on). The tax# is only included if there was a specific tax amount applied to a particular shopping cart item. Because profile-based tax may apply to other items in the cart, the sum of tax# might not total to tax.	
txn_id	PayPal's unique transaction ID.	17
txn_type	Type of transaction. This field will contain one of the following values: ■ cart: Payment was sent by the customer via the PayPal Shopping Cart. ■ send_money: Payment was sent by your customer from the PayPal Web site using the Send Money tab. ■ web_accept: Payment was sent by your customer via Buy Now buttons, Donations, or Smart Logos.	
verify_sign	Encrypted string used to validate the authenticity of the transaction.	

Product Codes

This table lists the values you can use for the product code. For the Simple Order API, use the **item_#_productCode** request field to specify the product code.

Table 11 Product Codes

Product Code	Definition
adult_content	Adult content.
coupon	Coupon applied to the entire order.
default	Default value for the product code. CyberSource uses <code>default</code> when a request message does not include a value for the product code.
electronic_good	Electronic product other than software.
electronic_software	Software distributed electronically rather than on disks or other media.
gift_certificate	Gift certificate.
handling_only	Fee that you charge your customer to cover your administrative selling costs.
service	Service that you perform for your customer.
shipping_and_handling	The shipping portion is the charge for shipping the product to your customer. The handling portion is the fee you charge your customer to cover your administrative selling costs.
shipping_only	Charge for transporting tangible personal property from your location to your customer. You must maintain documentation that clearly establishes the location where the title to the property passed from you to your customer.
subscription	Subscription to a web site or other content.

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