



Express Checkout Integration Guide

PayPal Express Checkout Integration Guide

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Preface

This Document

This document describes PayPal Express Checkout.

Intended Audience

This document is written for merchants, resellers, and sellers who wish to implement a powerful and dynamic customer-centric checkout process for their website.

Revision History

Revision history for *Express Checkout Integration Guide*.

TABLE P.1 Revision History

Date	Description
September 2007	Added chapter on the giropay funding method.
May 2007	Added chapter on including promotions with Express Checkout.
February 2007	Minor corrections.
December 2006	New button placement requirements. New PayPal Checkout button graphic.
September 2006	Description of the <code>useraction</code> variable that can be used on the redirection of the user's browser to PayPal after <code>SetExpressCheckout</code> to control the text of the final button displayed on the PayPal site. All information about the SOAP APIs for Express Checkout and Authorization & Capture has been moved to the SOAP API Developer Reference.
August 2006	Miscellaneous minor corrections
July 2006	Miscellaneous minor corrections
January 2006	Additional API error messages for Express Checkout: 10445, 10446.
December 2005	Removed erroneous description that stated that the <code>SetExpressCheckoutRequest</code> field <code>cpp-header-image</code> must be URL-encoded.

Get Started Quickly: Integration Center

PayPal's Integration Center at <https://www.paypal.com/integration> has step-by-step details for getting started with the PayPal Software Development Kits (SDKs), Website Payments Pro, Express Checkout, Website Payments Standard, Authorization & Capture, Instant Payment Notification, and more.

Visit the Integration Center at:

<https://www.paypal.com/integration>

Notational Conventions

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

Typeface	How Used
<i>serif italics</i>	A document title.
	A term being discussed or defined. For example: A file is a readable or writable stream of characters ...
	Boolean values (not keywords). For example: The function returns true if it encounters an error.
monospaced	Pathnames or file names that appear in body text frames.
	Code-related names that appear in body text frames. Such names are used for functions, callbacks, arguments, data structures, and fields. For example: <code>AbstractResponseType</code> is the SOAP response type definition on which all PayPal API response methods are based.
	Components of Internet protocol requests and responses, such as HTTPS and FORM variables. For example: The PayPal system uses a <code>method=POST</code> request to return IPN status variables related to subscriptions, such as <code>txn_type</code> .
Serif bold	User interface names, such as window names or menu selections. For example: On the Profile page, click Email to confirm your email address.
<i>San-serif oblique</i>	Placeholders used in the context of a format or programming standard or formal descriptions of PayPal system syntax. Placeholders indicate values or names that the reader should provide. Example: For example, <code>amount</code> is the variable for a single-item shopping cart, but <code>amount_X</code> is the name of the variable for a multi-item shopping cart. <code>amount_3</code> is the item amount for the third item in a multiple-item shopping cart.

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

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

1

Express Checkout Overview

The more convenient it is for your customers to buy from you, the more they'll buy. Express Checkout allows customers the option to pay quickly through PayPal – and gives your business more benefits:

- Give buyers more convenience, and get more sales.
Since your customers simply log in to use information they've already entered with PayPal, they save time by completing transactions in fewer steps. This helps increase loyalty and sales.
- Complete sales on your website, and get more upsell opportunities.
Buyers finish their orders on your website. This gives you more advertising opportunities.
- Help customers feel safer, so they buy more.
Buyers prefer to pay with PayPal because their customer information is kept safe. When they're confident about the security of their information, they purchase more.

What Is Express Checkout?

- Express Checkout allows your customers to complete transactions in very few steps. It lets them use shipping and billing information stored securely at PayPal to check out, so they don't have to re-enter it on your site.
- Express Checkout gives you the flexibility to put PayPal first in your checkout process – or on your billing page with other payment options.
- It's an API-based feature that can be used along with the PayPal Direct Payment API, which lets you process credit cards directly on your website.

How It Works

1. After selecting products to purchase, your customers click **Checkout with PayPal** on your website.
2. They're transferred to PayPal, where they select their payment method, as well as the correct shipping and billing address, then are returned to your website to complete their purchase.

3. PayPal automatically gives you the shipping address, email, and other customer information needed to fulfill your order.

With Express Checkout, your buyers finish their orders on your website, not PayPal's, so you can:

- Get real time notification of successful payments.
- Automate your internal business processes.
- Ensure buyers make it to your final confirmation page.
- Be notified that the buyer's address is confirmed, and ensure you're eligible for coverage under PayPal's Seller Protection Policy.

Availability

All PayPal business and premier account holders are eligible to implement PayPal Express Checkout on their websites. You can use Express Checkout to accept payment from both current PayPal account holders and from customers who sign up for PayPal during your checkout process.

NOTE: If a customer does not have a PayPal account but wants to pay with PayPal, the customer must sign up for a PayPal account. After signup, PayPal returns the customer to your website.

Compatibility

Express Checkout works with many other PayPal products, such as Instant Payment Notification, Settlement System, Downloadable History Log, Authorization & Capture, and more.

Funding Sources

With Express Checkout, you can accept all major credit cards, debit cards, bank transfers, and PayPal balance payments.

2

Button Placement, Page Designs, and Programming Flow

When you offer PayPal Express Checkout to your customers, you are required to display it in two forms, for your customers' best buying experience:

- PayPal as a Checkout Choice on your shopping cart page
- PayPal as a Payment Method

TABLE 2.1 *PayPal Button Placement and Rules*

Placement	PayPal Graphic	Requirements
PayPal as a Checkout Choice		Place the PayPal Checkout button on your cart page, aligned with any other checkout buttons.
PayPal as a Payment Method		Place the PayPal Acceptance Mark graphic: 1. On your Payment Method page. 2. On your home page, along with credit card logos, if applicable.

HTML for PayPal Button Graphics

You can get HTML for the Express Checkout button and PayPal Acceptance Mark from the following location:

TABLE 2.2 *Location to get HTML for Express Checkout*

Country	URL
USA	https://www.paypal.com/express-checkout-buttons
United Kingdom	https://www.paypal.com/uk/ec-buttons
Australia	https://www.paypal.com/au/ec-buttons
Netherlands	https://www.paypal.com/nl/knoppen-voor-expressbetaling

IMPORTANT: Rather than storing the button graphics on your own server, use the PayPal-provided image paths for the graphics to reassure your customers that the checkout is secure and that you are displaying the most up-to-date logos from PayPal.

Examples of Button Placement

Here are some examples of proper placement:

1. PayPal as a Checkout Choice and as a Payment Method

DesignerFotos [PayPal's sample integration] View Cart | My Account | Help

Search:

A demonstration of PayPal's integration flow

Category: Landscape, Abstract, Still Life

Subscribe FOTO Magazine

10/3/06 Get settlement file Get history log

Shopping Cart

Qty	Items	Price
1	San Francisco Bay (32" x 32")	\$250.00 Delete
1	Mount Hamilton (24' x 15")	\$50.00 Delete

Subtotal: \$300.00

For testing purposes only \$0.01 will be submitted.

DesignerFotos accepts

VISA MasterCard AMEX DISCOVER PayPal

2. PayPal as a Payment Method

DesignerFotos

Billing Information

Please select a payment method, enter your billing address, then click the 'Continue' button.

Payment Method

☐ PayPal Save time. Checkout securely. Pay without sharing your financial information.

☐ MasterCard VISA AMEX DISCOVER

Credit or Debit Card Information

Credit Card Type:

You can choose from several design variations for PayPal as a Payment Method. See [“Payment Method Page Layout Recommendations.”](#)

Relation of Button to API Call: SetExpressCheckout and Redirect to PayPal

Both button graphics must make a call to the SetExpressCheckout API. See the [PayPal SOAP API Reference](#) or the [PayPal NVP API Developer Guide](#) for full programming details about SetExpressCheckout.

After the response from SetExpressCheckout, you must redirect the customer's browser to PayPal. The SetExpressCheckout response includes an Express Checkout session token. Add the value of the Token from the SetExpressCheckout response as a name/value pair to the following URL, and redirect your customer's browser to it:

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

NOTE: Express Checkout has a variation on this redirect URL (called “user action”) that allows you to bypass calling the second API (GetExpressCheckoutDetails) and to change the text of the final button displayed on PayPal. See “[Design Variation: Eliminating Your Order Review](#)” on page 15.

Recommendation for Browser Redirection

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

Design Variation: Eliminating Your Order Review

If your normal checkout includes displaying Payment Methods page towards its end, you do not need to display that Payment Method page after the customer returns from PayPal to your site, because it is superfluous. The customer has already selected PayPal to pay you.

You can make the checkout appear to complete on the PayPal site, not your own, and entirely bypass your own order review page. (After the customer returns from the PayPal site, you must call the DoExpressCheckoutPayment API to actually complete the transaction.) For example, if you do not want to display an “Order Review” page on your site after the customer returns from PayPal, you want the button text on PayPal to read **Pay**.

You control the text of the button displayed on the PayPal site with the `useraction` variable on the PayPal URL to which you redirect the customer after SetExpressCheckout:

- If `useraction` is not set or `useraction=continue`: PayPal displays a **Continue Checkout** button on its site.
- `useraction=commit`: PayPal displays a **Pay** button on its site.

Here are the discrete steps for using `useraction`:

1. Get the token from the response from SetExpressCheckout.

The response from `SetExpressCheckout` is the buyer's token. For example, if the value of `ReturnURL` on `SetExpressCheckout` is `https://www.mybiz.com/snagECvalues`, the URL to which PayPal redirects looks like this:

`https://www.mybiz.com/snagECvalues?token=EC-0W8920957N684880R`

2. Add the token and the desired `useraction` as a name/value pairs to the following URL, and redirect your customer's browser to it:

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

Payment Method Page Layout Recommendations

When you display the PayPal Acceptance Mark with other payment methods, you have several designs to choose from:

- As a radio button
- As horizontal fields
- In a pulldown SELECT list

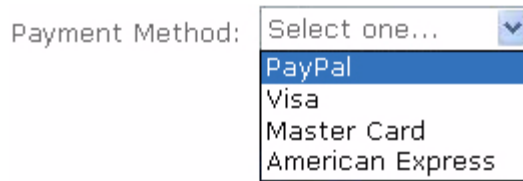
IMPORTANT: Do not preselect any payment method. Allow the customer to make a choice without any default.

As a radio button:

FIGURE 2.1 *Payment Methods: PayPal as Unique Choice*



The screenshot shows a web page for "DesignerFotos". Below the logo is a "Billing Information" section with a text prompt: "Please select a payment method, enter your billing address, then click the 'Continue' button." Below this is a "Payment Method" section with a red header bar. It contains two radio buttons. The first is for "PayPal" with the text "Save time. Checkout securely. Pay without sharing your financial information." The second is for "Credit or Debit Card" with icons for MasterCard, VISA, AMEX, and DISCOVER. Below the "Payment Method" section is a "Credit or Debit Card Information" section with a red header bar. It contains a label "Credit Card Type:" followed by a dropdown menu with the text "Select a Card" and a downward arrow.

As horizontal option fields:**FIGURE 2.2 Payment Methods: Horizontal Design****As a pulldown SELECT list:****FIGURE 2.3 Payment Methods: Pulldown SELECT List****Page Behavior When PayPal Is Selected**

When your customer selects PayPal as a Payment Method, for the best buying experience, you should:

- Use JavaScript to hide or disable credit card fields and billing address fields, because prompting for this information is irrelevant when a customer pays with PayPal.
- If other fields such as coupon code or gift certificate are on the page, still display them so your customer can fill them out before being redirected to PayPal.
- Change the function of the “Continue Checkout” button to call the SetExpressCheckout API and redirect the customer to PayPal.

Express Checkout Programming Flow-of-Control

Your page design triggers PayPal Express Checkout API calls. Here is how the Express Checkout API calls work. For precise details about the fields and values of the Express Checkout API calls, see “Express Checkout API” in the [SOAP API Reference](#).

1. Preparatory indication to PayPal that you intend to use Express Checkout for the payment for the customer’s order: **SetExpressCheckout**.
2. Redirecting the customer to the PayPal website.
3. Getting details from PayPal about this customer (such as shipping address) and optionally allowing the customer to edit these details during the order review: **GetExpressCheckoutDetails**.
4. Making the payment transaction with **DoExpressCheckoutPayment** at the end of checkout, in one of two forms:
 - As the complete amount of a final sale
 - As an authorization for a total amount that you must capture later with Authorization & Capture

FIGURE 2.4 Express Checkout Flow-of-Control

PayPal Express Checkout

Legend:  Web Flow  API Call  Token

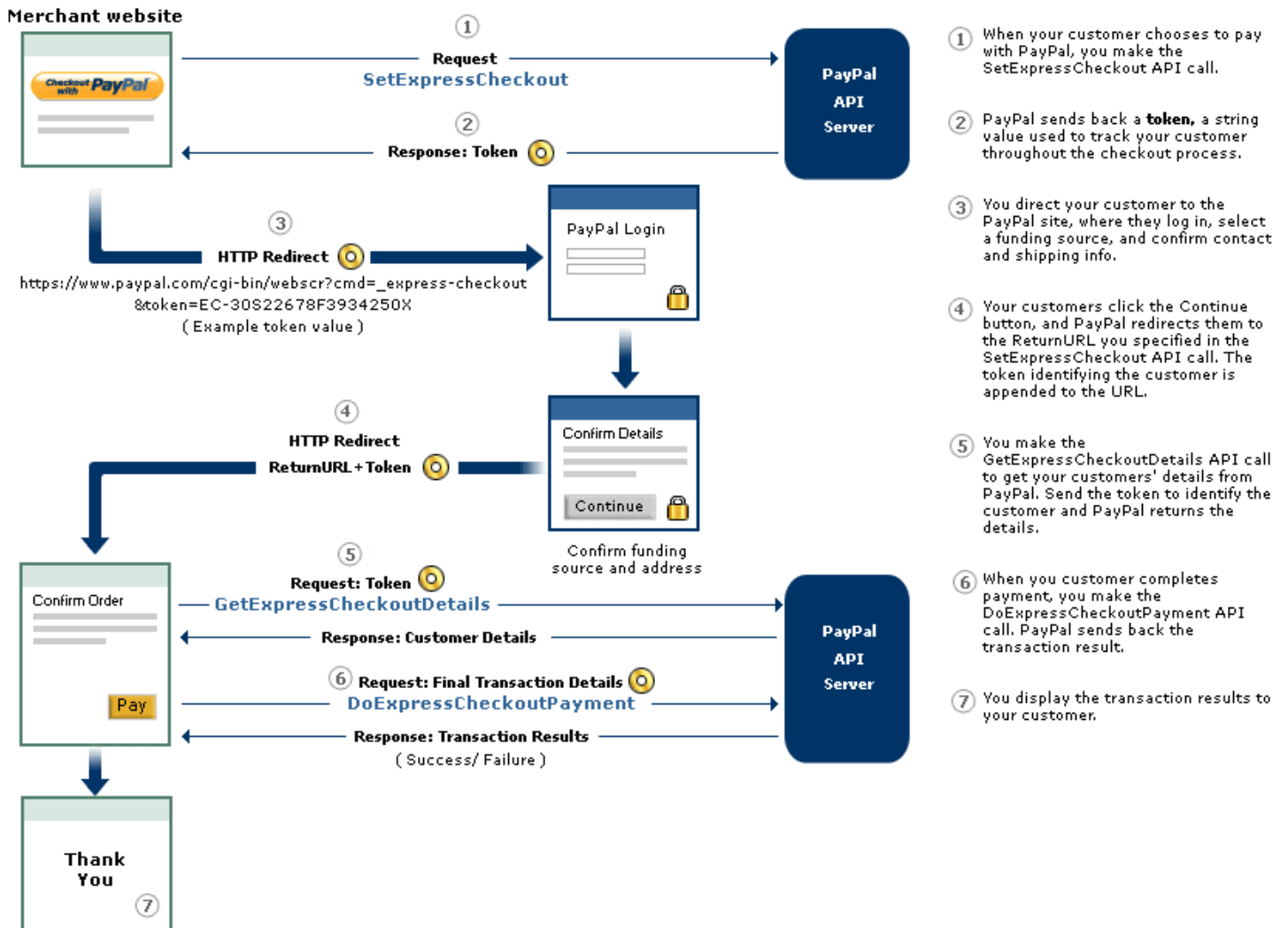


TABLE 2.3 Express Checkout Program Flow-of-Control and Integration Points

Customer...	Merchant...	PayPal...
1 Clicks Checkout with PayPal button.	Calls SetExpressCheckout API with the required fields – estimated OrderTotal , ReturnURL , and CancelURL – and optional fields, such as MaxAmount .	

TABLE 2.3 Express Checkout Program Flow-of-Control and Integration Points

Customer...	Merchant...	PayPal...
		2. Returns <code>SetExpressCheckout</code> response with <code>Token</code> and appends the values of <code>Token</code> and <code>PayerID</code> to your return URL.
	3. Adds value of element <code>Token</code> from <code>SetExpressCheckout</code> response as a name/value pair to the following URL, and redirects the user's browser to it:	
	<code>https://www.paypal.com/cgi-bin/webscr?cmd=_express-checkout&token=value</code>	
Logs in to PayPal, approves the use of PayPal, and clicks Continue or Pay .		4. With a GET, redirects user's browser to merchant's <code>ReturnURL</code> with token value appended.
	5. Optionally calls <code>GetExpressCheckoutDetails</code> API with <code>Token</code> to retrieve customer's information.	Returns <code>GetExpressCheckoutDetails</code> response with <code>PayerID</code> , email address, shipping address, confirmed or unconfirmed status of that shipping address, and other details.
	Renders page in customer's browser for the next step in checkout process, such as your "Order Review" page.	
Clicks "Confirm Order" button	6. Calls <code>DoExpressCheckoutPayment</code> API with the required elements <code>Token</code> , <code>OrderTotal</code> , <code>PaymentAction</code> , and <code>PayerID</code> returned by <code>GetExpressCheckoutDetails</code> response.	Returns payment info with important <code>TransactionID</code> value and other details about the payment.
	7. Displays "Thank You" page.	

3

How Express Checkout Works

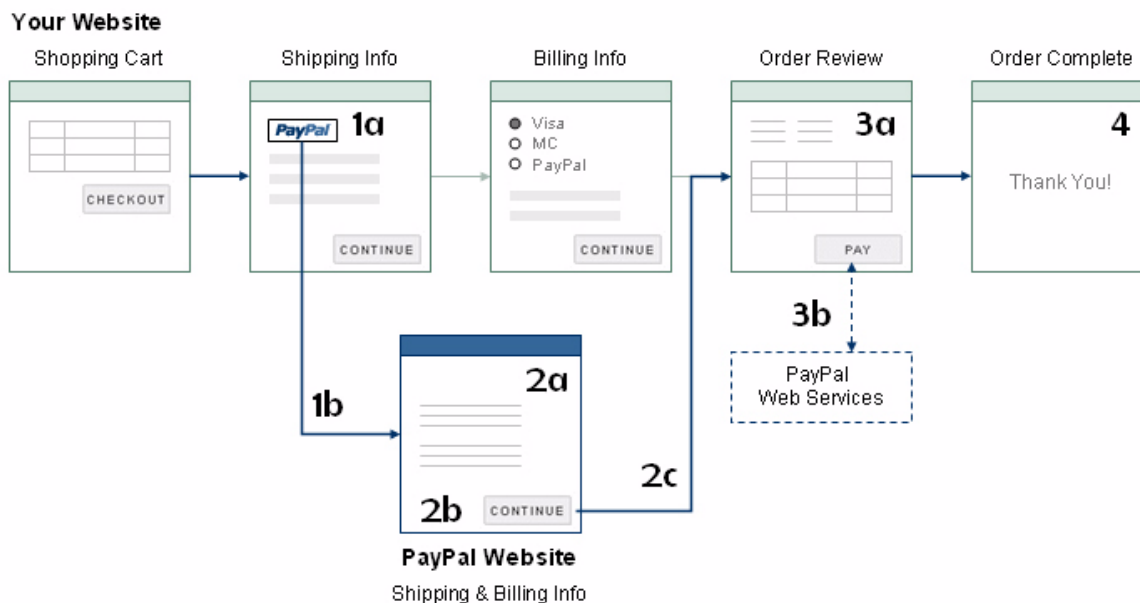
PayPal Express Checkout is a combination of the checkout process on your website, PayPal login and review pages on <https://www.paypal.com>, and PayPal Web Services API SOAP requests/responses.

To explain how Express Checkout works, this chapter presents a generalized checkout process and details how Express Checkout can be implemented with it. This generalized checkout process, which might differ from your own, is shown in [Figure 3.1, “Generalized Customer Checkout.”](#) Each numbered step in the diagram coincides with what this guide refers to as Express Checkout Integration Points 1, 2, and 3.

The Integration Points occur in the following sequence. Your customer always starts and completes his order on your website.

1. When a customer clicks **Checkout with PayPal**, he is transferred to PayPal to log in.
2. The customer then selects a shipping address and payment method and approves the use of PayPal.
3. PayPal then returns the customer to your website to review and finalize the order.

FIGURE 3.1 Generalized Customer Checkout



At each Integration Point, you must set certain required API element values, and you can affect the behavior and usefulness of Express Checkout by setting optional elements.

After a succinct description of the technical view of implementing Express Checkout, the remainder of this chapter includes detailed steps for each of the Integration Points.

TABLE 3.1 Steps in Integrating Express Checkout

Step	Description
1a	After selecting products to purchase, your customer clicks the Checkout with PayPal button on your website. This allows your customer to quickly skip entering shipping and billing information on your website. See “Step 1a: Customer Selects PayPal on Your Website” on page 23.
1b	Integration Point 1 You make an API call to pass PayPal the transaction details. You then transfer the customer to PayPal via an HTTP redirect. Your customer is transferred to PayPal. See “Step 1b: Integration Point 1” on page 24.
2a	Your customer selects a shipping address and payment method stored on PayPal. See “Step 2a: Customer Approves Use of PayPal” on page 27.”
2b	Your customer clicks Continue Checkout to approve the use of PayPal and is returned to your website. See “Step 2b: Customer Returns to Your Website” on page 30.
2c	Integration Point 2 Your customer is transferred back to your website. PayPal transfers the customer via an HTTP redirect. You then make an API call to retrieve transaction details, such as shipping address, email address, and other information needed to fulfill your order. See “Step 2c: Integration Point 2” on page 30.
3a	Your customer finishes the checkout process on your website, reviews the order, and completes the order. See “Step 3a: Customer Completes Order” on page 32.
3b	Integration Point 3. When your customer places the order, you make an API call to PayPal to request payment. (Your customer does not see this step.) The payment transaction is initiated, and PayPal sends your customer an email receipt for the payment. See “Step 3b: Integration Point 3” on page 34.
4	You transfer your customer to your order confirmation page. See “Step 4: Customer Notified Order Is Complete” on page 37.

Express Checkout gives you the flexibility to put PayPal either first in your checkout process or on your billing page along with other payment options.

Relationship to Authorization & Capture

PayPal assumes that at the end of the checkout process, you will make a final sale and payment transaction via PayPal. If at point of sale you do not know the complete cost of the order—for example, if shipping, handling, and tax is not precisely known, or if you want to upsell—you can authorize a transaction that you capture later with Authorization & Capture.

For more information about Authorization & Capture, see [Chapter 4, “How Authorization & Capture Works.”](#)

Step 1a: Customer Selects PayPal on Your Website

PayPal recommends that you place the Express Checkout button on your website before your customers are required to enter their shipping and billing information, as shown in [Figure 3.2, “PayPal Express Checkout Button Before Shipping Address Information.”](#)

FIGURE 3.2 *PayPal Express Checkout Button Before Shipping Address Information*

The screenshot shows the DesignerFotos website's checkout process. At the top is the DesignerFotos logo. Below it is a 'Shipping Information' section with a prompt: 'Please enter a shipping address and shipping method, then click the 'Continue' button.' A prominent orange banner reads 'Fast, Secure Checkout with PayPal'. Below this banner is a 'Checkout With PayPal' button with a right-pointing arrow. To the right of the button, text says: 'Save time. Checkout securely. Pay without sharing your financial information.' Below the banner is a 'Shipping Address' section with input fields for: First Name, Last Name, Street Address 1, Street Address 2 (Optional), City, State (a dropdown menu currently showing 'California'), Zip / Postal Code, Country (a dropdown menu currently showing 'United States'), and Telephone Number. Below the address fields is a 'Shipping Method' section with a dropdown menu currently showing 'Standard Shipping (3-5 Business Days)'. At the bottom of the form is a 'Continue' button. At the very bottom of the page are links for 'About DesignerFotos', 'Return Policy', 'Privacy Policy', 'Terms of Service', and 'Help'.

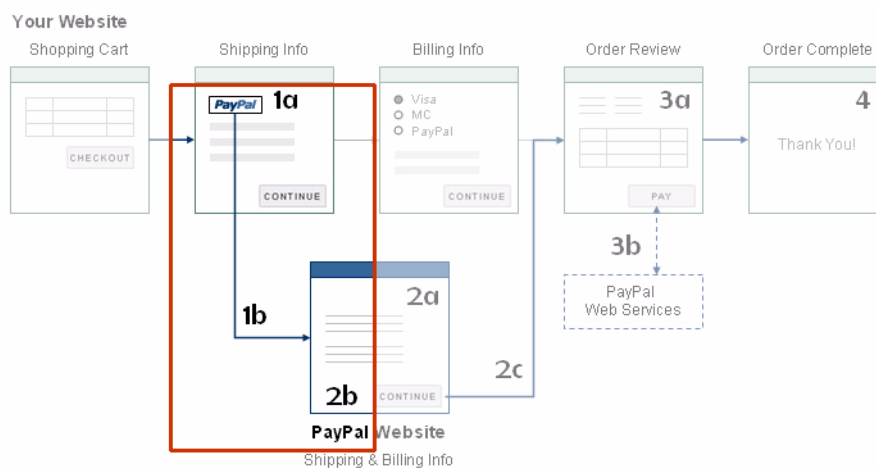
NOTE: Your customer always reviews transaction details and makes the final payment on your website. PayPal handles the payment verification and passes you the customer's

shipping information. PayPal never shares your customer's financial information with anyone.

Step 1b: Integration Point 1

As shown in [Figure 3.3, “Express Checkout Integration Point 1,”](#) Integration Point 1 is where you transfer a customer's browser to PayPal to select or add a shipping address and funding source.

FIGURE 3.3 Express Checkout Integration Point 1



Integration Point 1 consists of the following events and actions:

- The customer clicks the **Checkout with PayPal** button.
- You send `SetExpressCheckoutRequest` to PayPal.
- PayPal returns the `SetExpressCheckoutResponse`.
- You redirect the customer's browser to PayPal.

Usage Notes About SetExpressCheckout Elements

The following is important usage information about some of the required or optional elements in the first SOAP request for Express Checkout. For complete details about all elements, see “SetExpressCheckout” in the [SOAP API Reference](#).

TABLE 3.2 *SetExpressCheckoutRequest Usage Notes*

Element	Required or Optional ?	Notes
OrderTotal	Required	The total estimated cost of the order to the customer. If shipping and tax charges are known, include them in <code>OrderTotal</code>; if not, <code>OrderTotal</code> should be the current subtotal of the order.
MaxAmount	Optional	The expected maximum total amount of the complete order, including shipping and tax charges. PayPal uses an adjusted <code>OrderTotal</code> to determine which funding sources it can authorize for use by the customer. PayPal business logic calculations account for the fact that shipping and tax will likely be added to the <code>OrderTotal</code> before the customer completes the purchase. <code>MaxAmount</code> is additional information for PayPal’s business logic to properly calculate the customer’s available funds for your unique circumstances. If <code>OrderTotal</code> is the final amount, set <code>MaxAmount</code> equal to <code>OrderTotal</code>. NOTE: If the final <code>OrderTotal</code> sent with the <code>DoExpressCheckoutPaymentRequest</code> (the final PayPal Express Checkout API) exceeds the value of <code>MaxAmount</code>, the payment will still be successfully processed.
ReturnURL	Required	URL to which the customer’s browser is returned after approving use of PayPal. PayPal recommends that the value of the required <code>ReturnURL</code> element be the final review page on which the customer confirms the order and payment. The value of your <code>ReturnURL</code> must always assume GET as the <code>FORM METHOD</code>, just as if the value were to be included in a <code>FORM</code>. That is, your <code>ReturnURL</code> must expect to read from the <code>QUERY_STRING</code> environment variable, not from standard input. For your programmatic control on the redirect of the customer’s browser to your website, the value of <code>ReturnURL</code> can include any name/value pairs your programs require.

TABLE 3.2 *SetExpressCheckoutRequest Usage Notes*

Element	Required or Optional ?	Notes
CancelURL	Required	URL to which the customer is returned if he decides not to use PayPal or if PayPal is not able to authorize the customer. PayPal recommends that the value of the required CancelURL be the original page on which the customer chose to use PayPal. For instance, if the customer were transferred to PayPal from your shipping information page, the CancelURL value should be the URL of your shipping information page. If the customer clicks Cancel on the PayPal website, PayPal redirects the customer's browser to your shipping information page, where the customer can continue with your standard checkout process.
PaymentAction	Optional	How you want to obtain payment: • Sale indicates that this is a final sale for which you are requesting payment. • Authorization or Order indicate that this payment is subject to settlement with PayPal Authorization & Capture. A PaymentAction of Authorization indicates to PayPal that the order total at the end of the customer's checkout will not be a final sale. If you choose this action, you will need to perform an additional step in order to capture the payment. For more information about PayPal Authorization & Capture, see the Chapter 4, "How Authorization & Capture Works."
cpp-header-image	Optional	A URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high. NOTE: PayPal recommends that you provide an image from a secure (https) server. If the image is not on a secure server, when the customer's browser is redirected to the PayPal website, the customer will see a message about potential security risks (a mixture of secure and insecure items). This message might intimidate some customers from continuing with their purchase. In Figure 3.4, "PayPal Login Page" on page 28, the DesignerFotos image beneath the PayPal logo demonstrates how a cpp-header-image appears. For more information about custom payment pages, see the Website Payments Standard Integration Guide.

TABLE 3.2 *SetExpressCheckoutRequest Usage Notes*

Element	Required or Optional ?	Notes
Custom	Optional	The optional Custom element is a <i>passthrough variable</i> . Its value is returned verbatim on the final PayPal Express Checkout API, <code>DoExpressCheckoutPaymentResponse</code> . You can use this value for whatever purpose you desire, such as an accounting tracking number or additional data needed by your programs (for example, a session-id or other variable).

TABLE 3.3 *SetExpressCheckoutResponse Usage Notes*

Element	Notes
Token	A timestamped token by which you identify to PayPal that you are processing this payment with Express Checkout. NOTE: The token expires after three hours.

Transferring Your Customer to PayPal

After you receive a successful response from PayPal, you should add the value of the Token from `SetExpressCheckoutResponse` as a name/value pair to the following URL, and redirect your customer's browser to it:

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

Express Checkout has a variation on this redirect URL that allows you to bypass calling the second API (`GetExpressCheckoutDetails`) and to change the text of the final button displayed on PayPal. See [“Design Variation: Eliminating Your Order Review”](#) on page 15.

Recommendation for Browser Redirection

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

Step 2a: Customer Approves Use of PayPal

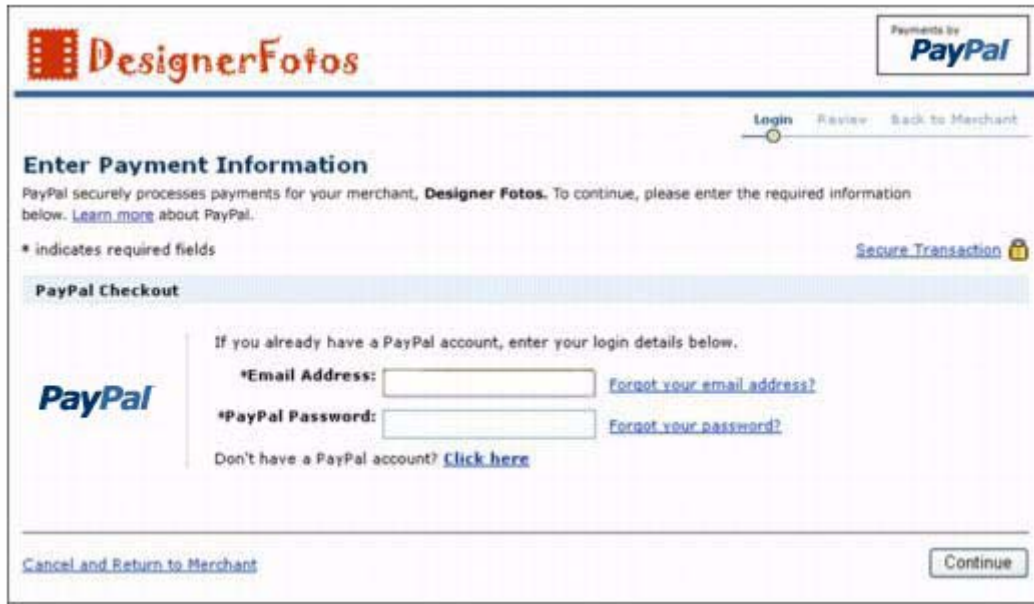
The next step after redirecting the customer's browser to PayPal with the response token is for the customer to approve PayPal as the payment method for his purchase. The customer is redirected to the PayPal login page to enter his email and password as shown in [Figure 3.4, “PayPal Login Page.”](#) If the customer does not have a PayPal account, he can click the **Don't**

How Express Checkout Works

Step 2a: Customer Approves Use of PayPal

have a PayPal account? Click Here link and enter his credit card information to register for a PayPal account.

FIGURE 3.4 PayPal Login Page



The screenshot shows the PayPal login page for the merchant "DesignerFotos". At the top left is the "DesignerFotos" logo. At the top right is a "Payments by PayPal" logo. Below the logos, there are links for "Login", "Review", and "Back to Merchant". The main heading is "Enter Payment Information". Below this, a message states: "PayPal securely processes payments for your merchant, **Designer Fotos**. To continue, please enter the required information below. [Learn more](#) about PayPal." There is a note: "* indicates required fields" and a link for "Secure Transaction" with a lock icon. The section is titled "PayPal Checkout". It says: "If you already have a PayPal account, enter your login details below." There are two input fields: "*Email Address:" and "*PayPal Password:". To the right of each field is a link: "Forgot your email address?" and "Forgot your password?". Below the password field is a link: "Don't have a PayPal account? [Click here](#)". At the bottom left is a link: "Cancel and Return to Merchant". At the bottom right is a "Continue" button.

If the customer has previously been to PayPal, his email address is pre-filled to save time during login.

After the customer logs in to PayPal, he needs to verify his information on the “Review Your PayPal Information” page, as shown in [Figure 3.5, “PayPal Review Page.”](#)

FIGURE 3.5 PayPal Review Page

The screenshot shows the PayPal Review page for a merchant named DesignerFotos. The page is titled 'Review Your Payment' and instructs the user to review payment details and click 'Pay' to complete the secure payment. It includes sections for Gift Certificates or Coupons, Seller Information, Shipping Information, and Payment Method. The Payment Method section shows an Instant Transfer from Fleet Bank and a Back Up Funding Source of MasterCard. At the bottom, there are links for 'Cancel and Return to Merchant' and a 'Pay' button.

DesignerFotos

Payments by PayPal

Login Review Back to Merchant

Review Your Payment

Review the payment details below and click **Pay** to complete your secure payment.

* indicates required fields [Secure Transaction](#)

Gift Certificates or Coupons

To use a gift certificate, coupon or points stored in your account, click **Select Code**

Select Code **OR** Enter a redemption code and click **Redeem Code**

Enter Code: **Redeem Code**

[Learn more](#) about redemption codes.

Seller Information

Seller Name
Designer Fotos

Shipping Information

Shipping Address
123 Anystreet
Anytown, CA 95123
United States
[Edit Address](#)

Payment Method

Instant Transfer: Fleet Bank XXXXXX4338
Back Up Funding Source: MasterCard XXXX-XXXX-XXXX-1220

[More Funding Options](#)

[Cancel and Return to Merchant](#) **Pay**

The customer then:

1. Can review his default funding source and shipping address, select other funding sources or shipping address already saved on PayPal, or enter new ones.

NOTE: PayPal returns your customer to the `ReturnURL` specified by you in `SetExpressCheckoutRequest`. If the customer clicks the **Cancel** button, PayPal returns him to the `CancelURL` specified in the `SetExpressCheckoutRequest`.

2. Clicks **Pay** to approve the use of PayPal.
3. Returns to your website to complete the purchase.

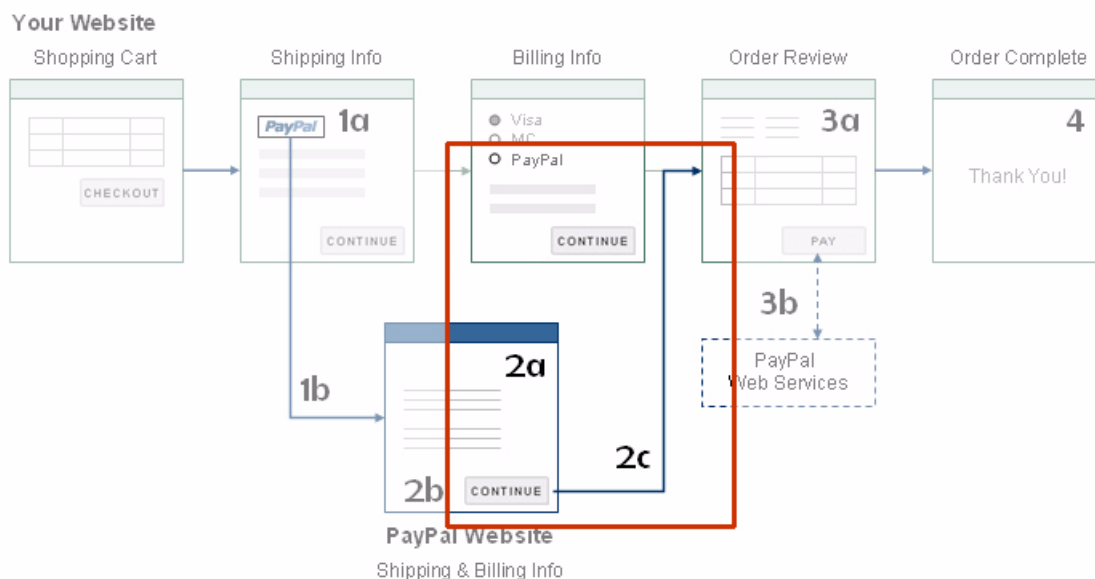
Step 2b: Customer Returns to Your Website

After the customer has selected shipping and billing information on the PayPal website, he clicks **Pay**, which is the customer's approval of the use of PayPal. PayPal then redirects the customer's browser to your website as described in "[Step 2c: Integration Point 2](#)."

Step 2c: Integration Point 2

Figure 3.6, "Express Checkout Integration Point 2" illustrates Express Checkout Integration Point 2.

FIGURE 3.6 Express Checkout Integration Point 2



Integration Point 2 consists of the following events and actions:

- The customer clicks **Continue Checkout** on the PayPal review screen.
- PayPal transfers your customer to the location you specified in the **ReturnURL**.
- You send the **GetExpressCheckoutDetailsRequest** to PayPal.
- PayPal returns the **GetExpressCheckoutDetailsResponse**.
- You display the next screen of your checkout process to your customer.

After your customer has reviewed and approved his financial and shipping information, and done any necessary editing, PayPal redirects his browser to the **ReturnURL** provided in **SetExpressCheckoutRequest**.

ReturnURL, CancelURL, and the Express Checkout Token

PayPal appends the name/value pairs `token=tokenValue` and `PayerID=payeridValue` to the value of your ReturnURL and CancelURL. For example, if you set ReturnURL as follows:

`https://www.newco.com/ourcheckout`

PayPal changes the value as follows:

`https://www.newco.com/ourcheckout?token=tokenValue&PayerID=payeridValue`

Similarly, if your ReturnURL value already has name/value pairs, like the following:

`https://www.newco.com/ourcheckout?cartid=1234`

PayPal prefixes the appended token with the name/value pair delimiter, like this:

`https://www.newco.com/ourcheckout?cartid=1234&token=tokenValue&PayerID=payeridValue`

Once the customer arrives at this ReturnURL, you optionally send the `GetExpressCheckoutDetailsRequest` with the Token value provided in `SetExpressCheckoutResponse`. PayPal then sends you a response with your customer's transaction information.

For a list of all elements in `GetExpressCheckoutDetailsResponse`, see the [SOAP API Reference](#).

Usage Notes About GetExpressCheckoutDetails Elements

The following outlines usage information for some of the important elements sent in this response.

TABLE 3.4 *GetExpressCheckoutDetailsResponse Usage Notes*

Element	Notes
Payer	Email address of the payer.
PayerID	Unique PayPal customer account number. You must provide this value with <code>DoExpressCheckoutPaymentRequest</code> .
PayerStatus	The payer's PayPal account status. A value of <code>Verified</code> means that the customer has confirmed ownership of a bank account or has verified his account status through other means.
FirstName LastName	The payer's name.

TABLE 3.4 *GetExpressCheckoutDetailsResponse Usage Notes*

Element	Notes
Address	The payer's shipping address selected on PayPal. NOTE: With <code>SetExpressCheckoutRequest</code>, if you sent PayPal an <code>Address</code> in and set <code>AddressOverride</code>, on <code>GetExpressCheckoutDetailsResponse</code> PayPal returns the shipping address you originally sent on <code>SetExpressCheckoutRequest</code>.
AddressStatus	The status of the customer's shipping address. A status of <code>Confirmed</code> means that the shipping address matches a billing address on record with PayPal and that billing address has been verified by AVS. Your use of a <code>Confirmed</code> address is one of the requirements for you to be protected by PayPal's Seller Protection Policy (SPP). For more information about the Seller Protection Policy, see the following: https://www.paypal.com/spp
ContactPhone	Payer's contact telephone number. <code>ContactPhone</code> is returned to you only if you set this as a preference in the Website Payment Preferences of your Profile on https://www.paypal.com.

To protect the privacy of your customer, PayPal does not share billing address or financial information, such as credit card numbers.

NOTE: The terms of PayPal's Privacy Policy allow you to use a customer's personal information only for communications relating to the transaction, unless the customer expressly gives you permission to use the information for other purposes. For information about the PayPal Privacy Policy, see <https://www.paypal.com/privacy>.

Step 3a: Customer Completes Order

After you receive a successful `GetExpressCheckoutDetailsResponse`, display the next page in your checkout process. This page might be your order review page or a page on which the customer can select a shipping method, enter shipping instructions, or specify any other information necessary to complete the purchase.

FIGURE 3.7 Example of Order Review Page


Place Order

Please review all the information below and click the 'Place Order' button to complete your order.

Shipping Information

Shipping Address Joe Smith
2211 North First Street
San Jose, CA 95131
United States
[Edit](#)

Shipping Method

Billing Information

Payment Method PayPal Account
joe@demo.com
[Edit](#)

Order Details

Quantity	Item	Details	Price
1	San Francisco Bay	32" x 32"	\$250.00
1	Mount Hamilton	20" x 20"	\$50.00
Item Total			\$300.00
Shipping & Handling			\$5.00
Tax			\$0.00
Order Total			\$305.00

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[Place Order](#)

PayPal recommends that you alter your order review page as follows. [Figure 3.7, “Example of Order Review Page” on page 33](#) is an example of a page that has been altered to reflect these

guidelines.

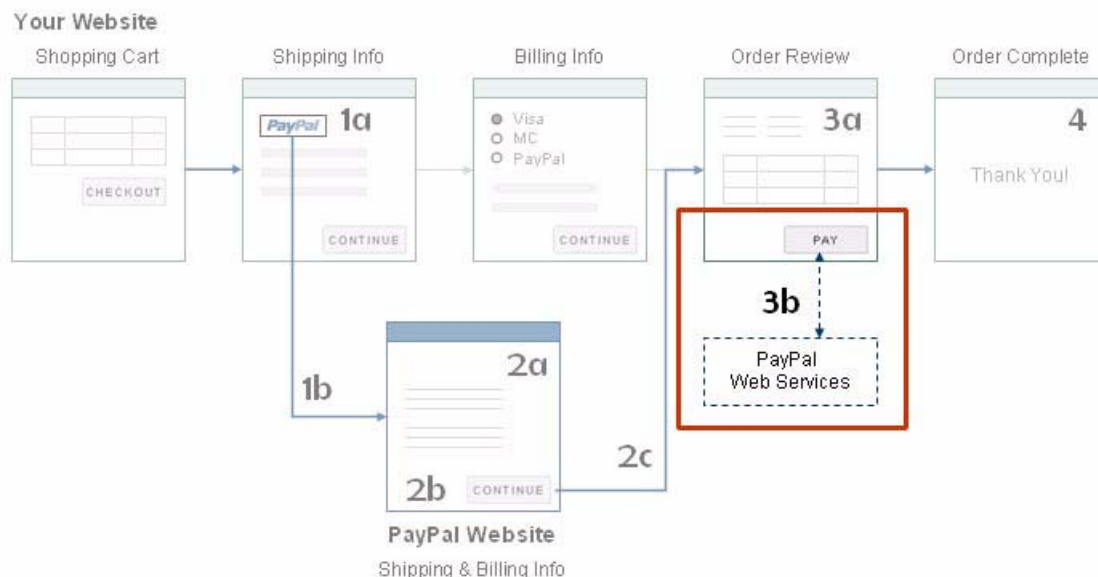
TABLE 3.5 Shipping, Billing and Order Total Usage

Shipping Information Section	Display the shipping address supplied by PayPal. The “Edit Shipping” button should return your customer to PayPal to edit shipping information on the PayPal website. This allows the customer to quickly select a different address that he already has stored with PayPal, or enter a new address. This also ensures that PayPal can provide you with the updated AddressStatus for the new shipping address. For information about AddressStatus, see the SOAP API Reference .
Billing Information Section	For billing information, display the customer’s PayPal email address provided in Express Checkout.
Order Total	With Express Checkout, you must display to the customer the same exact OrderTotal value that you send to PayPal in <code>DoExpressCheckoutPaymentRequest</code> .

When the customer clicks the “Place Order” button, send `DoExpressCheckoutPaymentRequest` to initiate the payment. After a successful response is sent from PayPal, direct the customer to your order completion page to inform him that you received his order.

Step 3b: Integration Point 3

Figure 3.8, “Express Checkout Integration Point 3” illustrates Express Checkout Integration Point 3.

FIGURE 3.8 Express Checkout Integration Point 3

Integration Point 3 consists of the following events and actions:

- The customer clicks the “Place Order” button on your website.
- You send the `DoExpressCheckoutPaymentRequest` to PayPal.
- PayPal returns the `DoExpressCheckoutPaymentResponse`.
- You redirect the customer to your “Order Confirmation” page.

Usage Notes About `DoExpressCheckoutPaymentRequest` Elements

Table 3.6 provides important usage information about some of the required or optional elements in the final API request for Express Checkout.

TABLE 3.6 `DoExpressCheckoutPaymentRequest` Usage Notes

Element	Required or Optional?	Notes
OrderTotal	Required	Total of the order, including shipping, handling, and tax. This must be the final amount of the purchase and can differ from the original, estimated OrderTotal you sent in the <code>SetExpressCheckoutRequest</code> . NOTE: PayPal does not enforce a maximum difference between the original estimated OrderTotal and the one you send on <code>DoExpressCheckoutPaymentRequest</code> . However, if the difference is substantial, your customer may no longer be approved to use the funding source he originally accepted.

TABLE 3.6 DoExpressCheckoutPaymentRequest Usage Notes

Element	Required or Optional?	Notes
PaymentAction	Required	How you want to obtain payment: • Sale indicates that this is a final sale for which you are requesting payment. • Authorization or Order indicate that this payment is subject to settlement with PayPal Authorization & Capture. NOTE: If you set PaymentAction to Sale or Order on SetExpressCheckoutRequest, you cannot change the PaymentAction value on DoExpressCheckoutPaymentRequest. You can, however, set PaymentAction to Sale on DoExpressCheckoutPaymentRequest if you originally set it to Authorization on SetExpressCheckoutRequest. NOTE: PayPal requires that a merchant using Express Checkout display to the customer the same amount that the merchant sends to PayPal for initial authorization in the OrderTotal element with the DoExpressCheckoutPaymentRequest API.
ItemTotal ShippingTotal HandlingTotal TaxTotal	Optional	You can send individual order-level totals for items, shipping, handling, and tax. If you send this information, PayPal includes it in the customer's transaction receipt from PayPal and on PayPal's Transaction Details page. If you send this information, the sum of these four totals must equal OrderTotal.
Order Description	Optional	The description you want to appear on the customer's transaction receipt from PayPal and on PayPal's Transaction Details page. PayPal recommends that you include your order number for this purchase if one is available.

TABLE 3.6 DoExpressCheckoutPaymentRequest Usage Notes

Element	Required or Optional?	Notes
PaymentDetailsItem • Name • Number • Amount • Quantity • SalesTax PaymentDetails • ItemTotal • TaxTotal	PaymentDetailsItem is optional. PaymentDetails is required.	If you send details about each item, they are included in the customer's transaction receipt from PayPal and on PayPal's Transaction Details page. Providing this information allows your customer to review the purchase information in his PayPal account details, can remind your customer about the purchase details, and might decrease the likelihood that your customer will mistakenly file a chargeback. The following rules apply to the PaymentDetailsItem elements: 1. If you set PaymentDetailsItem.Name, you must also send PaymentItem.Amount. 2. If you set PaymentDetailsItem.Amount, the sum of (PaymentDetailsItem.Amount x PaymentDetailsItem.Quantity) for all payment items must equal PaymentDetails.ItemTotal. 3. If you set PaymentDetailsItem.SalesTax, the sum of (PaymentDetailsItem.SalesTax x PaymentDetailsItem.Quantity) for all payment items must equal PaymentDetails.TaxTotal.
ShipToAddress	Optional	If you allow the customer to enter or edit shipping information on your website, you should pass your customer's shipping address to PayPal. NOTE: If you are using the shipping address PayPal returned to you with GetExpressCheckoutDetailsResponse, do not pass this address back to PayPal on DoExpressCheckoutPaymentRequest. NOTE: PayPal recommends that, whenever possible, you allow your customer to use the shipping address stored by PayPal. Doing so helps your customer complete the checkout more quickly and allows PayPal to provide you with the shipping AddressStatus in GetExpressCheckoutDetailsResponse.

Step 4: Customer Notified Order Is Complete

After the customer approves the order and it completes successfully, PayPal recommends that you display an order completion page showing the details of the transaction. An example is shown below.

FIGURE 3.9 Example of Order Complete Page



Your Order is Complete

Please print this receipt for your records.

Shipping Information

Shipping Address Joe Smith
2211 North First Street
San Jose, CA 95131
United States

Shipping Method Standard Shipping (3-5 Business Days)

Billing Information

Payment Method PayPal Account
joe@demo.com

PayPal Transaction ID 823487029384790

Order Details

PhotoPal Order Number 123-456-789

Quantity	Item	Details	Price
1	San Francisco Bay	32" x 32"	\$250.00
1	Mount Hamilton	20" x 20"	\$50.00
Item Total			\$300.00
Shipping & Handling			\$5.00
Tax			\$0.00
Order Total			\$305.00

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PayPal sends the customer an email notification with the completed transaction details of the order. You also receive an email of the payment and can view it in your Downloadable History Log or Account Overview.

4

How Authorization & Capture Works

Authorization & Capture is a settlement solution that provides merchants increased flexibility in obtaining payments from their buyers. During a traditional sale at PayPal, the authorization and capture action is completed simultaneously. Authorization & Capture separates the authorization of payment from the capture of the authorized payment.

Authorization & Capture is for merchants who have a delayed order fulfillment process and who typically make a \$1 auth at checkout. It enables merchants to modify the original authorization amount due to order changes occurring after the initial order is placed (such as taxes, shipping, or item availability). This chapter discusses the authorization and capture process and provides steps to help you authorize, capture, reauthorize, and void funds.

There are two ways to use Authorization & Capture:

1. Use the Authorization & Capture Application Programming Interface (API), which is discussed here and detailed in the *PayPal Name-Value Pair Developer Guide and Reference* and the *PayPal SOAP API Reference*.
2. Create an order or authorization with Website Payments Standard HTML and capture or void the authorization on the PayPal website (<https://www.paypal.com/>). This topic is not discussed here. For more information about the Authorization & Capture and Website Payments Standard, see the *Website Payments Standard Integration Guide*.

Fundamental Authorization Process With the APIs

Authorization & Capture starts when your buyer authorizes a payment amount during checkout.

1. For example, you can use the PayPal Express Checkout API with the PAYMENTACTION element set to **Authorization** or **Order**.

PAYMENTACTION

2. After your buyer completes checkout, you can then use the payment's transaction ID with Authorization & Capture APIs. You can:
 - Capture either a partial amount or the full authorization amount.
 - Authorize a higher amount, up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD).
 - Void a previous authorization.

Honor Period and Authorization Period

When your buyer approves an authorization, the buyer's balance can be placed on hold for a 29-day period to ensure the availability of the authorization amount for capture. You can reauthorize a transaction only once, up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD).

After a successful reauthorization, PayPal honors 100% of authorized funds for three days. A day is defined as the start of the calendar day on which the authorization or reauthorization was made (from 12AM PST to 11:50PM PST).

You can settle without a reauthorization from day 4 to day 29 of the authorization period, but PayPal cannot ensure that 100% of the funds will be available after the three-day honor period. However, PayPal will not allow you to capture funds if the buyer's account is restricted, locked, or a fraudulent case occurs, or if your account has a high restriction level. You can use Authorization & Capture only when your account has a low restriction level.

The honor period and authorization period for authorizations is described below:

If you attempt to capture funds outside the honor period, PayPal applies best efforts to capture funds. However, there is a possibility that funds will not be available at that time.

Buyer and seller accounts cannot be closed if there is a pending (unsettled) authorization.

Supported PayPal Payment Products

You can use Authorization & Capture with the PayPal products listed in [Table 4.1, "PayPal Products Supporting Authorization & Capture."](#)

By default, these products assume that a transaction is a final sale. You must explicitly specify that a transaction is a basic or order authorization.

NOTE: You must capture and void orders and order authorizations using the Authorization & Capture APIs. That is, you cannot process order authorizations on the PayPal website (<https://www.paypal.com>). The PayPal website supports processing only basic authorizations, not order authorizations.

TABLE 4.1 *PayPal Products Supporting Authorization & Capture*

Product	Typical Usage
Website Payments	PAYMENTACTION="authorization"
Buy Now	PAYMENTACTION="authorization"
Donations	PAYMENTACTION="authorization"
Shopping carts	PAYMENTACTION="authorization"

PayPal Products Not Supported. Authorization & Capture cannot be used with the following products:

- eBay checkout
- eCheck

- Gift Certificates and Coupons
- Subscriptions
- Instant Purchase
- Send Money
- Request Money
- Virtual Terminal
- Invoicing

Order Authorizations Scenarios

The following are common scenarios you will encounter when implementing order authorizations.

Simple Order

TABLE 4.2 Simple Order Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the variable <code>paymentaction=order</code> . You receive a response that the order has been created for a payment amount of \$100.00.	<code>DoExpressCheckoutPaymentRequest</code> with: <code>PAYMENTACTION=order</code>	
You request authorization for \$100.00.	<code>DoAuthorizationRequest</code>	<\$100.00>
You capture funds in the amount of \$115.00, the maximum amount allowed. The order now has a “Complete” status.	<code>DoCaptureRequest</code>	\$15.00

Complex Order

TABLE 4.3 Complex Order Scenario

Action	API Call	Running Balance
Your buyer orders 2 items from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	
You request authorization #1 for \$75.00.	DoAuthorizationRequest	<\$75.00>
Your buyer contacts you and upgrades to next-day shipping. You capture funds in the amount of \$80.00 on authorization #1 to accommodate for the additional shipping charges.	DoCaptureRequest	\$5.00
You request authorization #2 for \$25.00.	DoAuthorizationRequest	<\$25.00>
Your buyer contacts you and changes an item on the order. You void authorization #2.	DoVoid	\$0.00
You request authorization #3 for \$35.00 for the new item selection.	DoAuthorizationRequest	<\$35.00>
You capture authorization #3 for \$35.00. Because the maximum amount of funds that can be captured has been reached (115% of the original order amount), the order now has a “Complete” status.	DoCaptureRequest	\$0.00

Concurrent Authorizations

TABLE 4.4 Concurrent Authorizations Scenario

Action	API Call	Running Balance
Your buyer orders 3 pieces of equipment for \$300.00 from your website.		

TABLE 4.4 Concurrent Authorizations Scenario

Action	API Call	Running Balance
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$300.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	
You request authorization #1 on day 1 for \$100.00 for the keyboard. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You capture authorization #1 for \$100.00. You ship the keyboard.	DoCaptureRequest	\$0.00
You request authorization #2 on day 2 for \$200.00 for the second component. You receive a response that the authorization has been created for a payment amount of \$200.00.	DoAuthorizationRequest	<\$200.00>
On day 3, you capture authorization #2 for \$200.00.	DoCaptureRequest	\$0.00
You ship the second component.		

Total Capture Hits Relative Tolerance With Open Authorizations

TABLE 4.5 Total Capture Hits Relative Tolerance with Open Authorizations Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website for \$1000.00.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$1000.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	
Your buyer requests overnight shipping. You request authorization #1 for \$1100.00 (110% relative tolerance).	DoAuthorizationRequest	<\$1100.00>

TABLE 4.5 Total Capture Hits Relative Tolerance with Open Authorizations Scenario

Action	API Call	Running Balance
You receive a response that the authorization has been created for a payment amount of \$1100.00. You ship the in-stock item by overnight shipping.		
You capture authorization #1 for \$1100.00.	DoCaptureRequest	\$0.00
Your buyer contacts you and adds another item to the order. You request authorization #2 for \$60.00, increasing the order total to \$1160.00, which exceeds the 115% tolerance limit of the original order.	DoAuthorizationRequest	<\$60.00>
You receive a response that the request for authorization #2 has been declined.		\$0.00

Void Authorizations

TABLE 4.6 Void Authorizations Scenario

Action	API Call	Running Balance
Your buyer orders 2 items from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$350.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	
You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You ship the item. You capture authorization #1 for \$100.00.	DoCaptureRequest	\$0.00
You request authorization #2 on day 2 for \$200.00. You receive a response that the authorization has been created for a payment amount of \$200.00.	DoAuthorizationRequest	<\$200.00>
The buyer contacts you and cancels the remaining item.		

TABLE 4.6 Void Authorizations Scenario

Action	API Call	Running Balance
You void authorization #2.	DoVoid	\$0.00

Partial Capture

TABLE 4.7 Partial Capture Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	
.You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You ship the item. You capture authorization #1 for \$100.00.	DoCaptureRequest	\$0.00
With CompleteType set to NotComplete on the DoCapture API, you capture funds in the amount of \$50.00.	DoCaptureRequest	\$50.00

Complete Capture

TABLE 4.8 Complete Capture Scenario

Action	API Call	Running Balance
Your buyer orders an item from your website.		
You request an order from PayPal to authorize the payment, specifying the variable paymentaction=order. You receive a response that the order has been created for a payment amount of \$100.00.	DoExpressCheckoutPaymentRequest with: PAYMENTACTION=order	

TABLE 4.8 Complete Capture Scenario

Action	API Call	Running Balance
You request authorization #1 on day 1 for \$100.00. You receive a response that the authorization has been created for a payment amount of \$100.00.	DoAuthorizationRequest	<\$100.00>
You capture authorization #1 for \$100.00. You ship the item.	DoCaptureRequest	\$0.00

NOTE: The default for the DoCapture API is a Complete capture, not a Partial capture.

Optimal Buyer Experience

This section details the best practices you should follow in using Authorization & Capture to ensure the best buying experience for your customers and getting the most from Authorization & Capture.

Capturing Funds on Basic Authorizations

PayPal recommends that you capture funds within the honor period of three days because PayPal will honor the funds for a 3-day period after the basic authorization. If you attempt to capture funds after the three-day period and the authorization fails, your request to capture funds may be declined.

After day 4 of the authorization period, you can initiate a reauthorization, which will start a new three-day honor period. However, it will not extend the original authorization period past 29 days. For example, if you successfully complete a reauthorization on day 29 of the authorization period, funds will only be honored until the end of the 29th day, and a new three-day honor period will start but not extend beyond day 29.

You should capture funds within 24 hours after you ship your buyer's order.

Buyer Approval for Basic Authorizations

A buyer-initiated authorization allows you to capture funds from the buyer's account up to 115% of the originally authorized amount (not to exceed an increase of \$75 USD) and up to \$10,000 USD.

IMPORTANT: If you want to update any details of the purchase that change the original authorization amount, PayPal requires that you obtain consent from the buyer at the time of purchase or at the time of capture.



Voiding Basic Authorizations

You should void an authorization if the authorization or reauthorization will not be used.

Voiding the authorization unlocks the temporary hold placed on your buyer's funding sources.

5

Integrating giropay with Express Checkout

This chapter describes the processing flow and required changes to your integration for Express Checkout transactions using giropay, a common German funding source. This chapter contains the following sections:

- [“Processing Page Flow” on page 49](#) illustrates the high-level processing flow for giropay transactions.
- [“Giropay Integration” on page 50](#) describes the API and other programming changes you must make to add giropay as a funding source.

Processing Page Flow

When your customer selects giropay as a funding source during the Express Checkout flow, you redirect the customer to a static PayPal URL after your order review page. PayPal then redirects the customer to the giropay website to push the funds to the merchant. After the giropay payment is successfully completed, the transaction is confirmed.

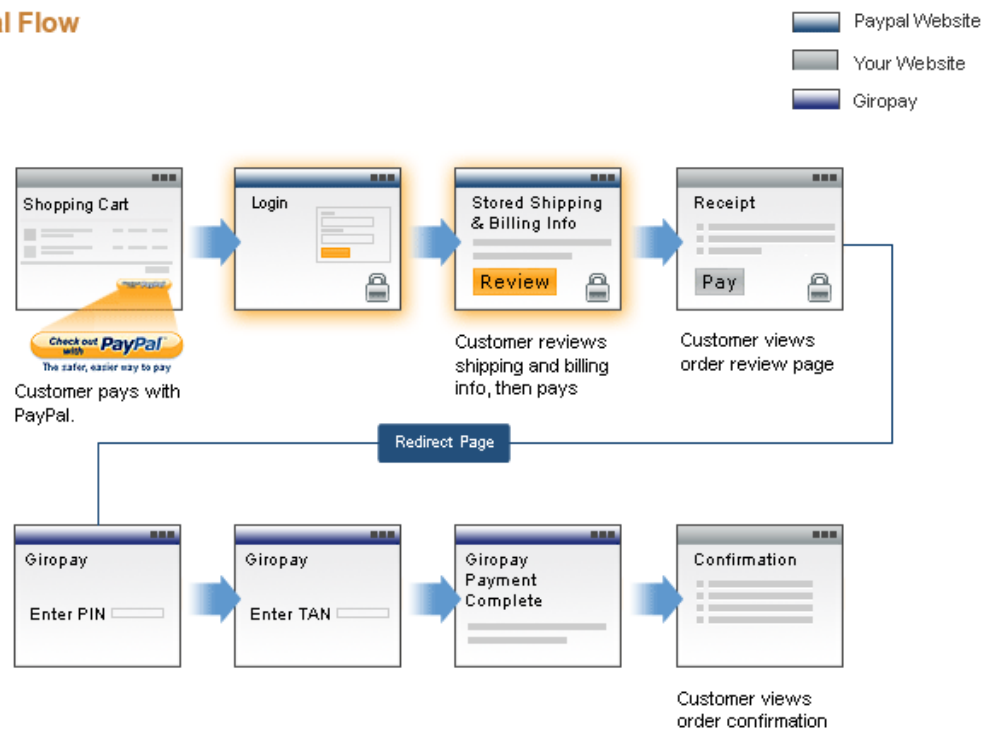
If the giropay payment fails or is cancelled by the customer, PayPal provides the necessary details for an EFT so that the customer can complete the transaction by pushing funds from his/her bank account. If your PayPal account profile blocks non-instant payments, the transactions is cancelled.

Giropay Payment Page Flow

[Figure 5.1](#) illustrates the flow of a successful giropay payment.

FIGURE 5.1 Page flow for a successful giropay payment

PayPal Flow



Cancelled or Unsuccessful Giropay Payment Page Flow

If the giropay payment fails for any reason, such as insufficient funds or the customer cancels, PayPal provides details to the customer to do a bank transfer from their bank account. This transaction will remain pending until PayPal receives the funds, at which time the transaction will be complete.

If you have disabled non-instant funding transactions for your PayPal account, the transaction is cancelled and PayPal redirects the customer to your *Order Cancel* page.

After the bank transfer flow is completed, the transaction is pending until the customer pushes the funds to PayPal.

If the customer cancels during the PayPal payment via bank transfer flow, your *Order Cancel* page is displayed.

Giropay Integration

This section details the programming and API changes necessary to implement the processing flow detailed in “Processing Page Flow” on page 49.

- **Initiate the Flow with SetExpressCheckout**

- Redirect the Customer to PayPal
- Complete the Transaction
- Receive Transaction Status Notification

Initiate the Flow with SetExpressCheckout

To support giropay payments, you pass the following three URLs as part of the `SetExpressCheckout` request. These URLs tell PayPal where to redirect the customer based on the success or failure of each type of payment transaction. See the *PayPal Name-Value Pair Developer Guide and Reference* for more information.

TABLE 5.1 *SetExpressCheckout fields for giropay*

NVP	Description
GIROPAYSUCCESSURL	The URL on the merchant site to redirect to after a successful giropay payment.
GIROPAYCANCELURL	The URL on the merchant site to redirect to after a giropay or bank transfer payment is cancelled or fails.
BANKTXNPENDINGURL	The URL on the merchant site to transfer to after a bank transfer payment.

Redirect the Customer to PayPal

After selecting a funding source on PayPal, the customer is redirected back to your website, as in the regular Express Checkout flow. There is one additional field, `REDIRECTREQUIRED`, returned in the response from both `GetExpressCheckoutDetails` and `DoExpressCheckoutPayment`.

If the value of this field is `true`, you redirect the customer from your *Order Review* page to <https://www.paypal.com/webscr?cmd=complete-express-checkout>. PayPal then redirects the customer from this redirect page to the necessary page for the selected funding source.

TABLE 5.2 *GetExpressCheckoutDetails and DoExpressCheckoutPayment response*

NVP	Description
REDIRECTREQUIRED	Flag to indicate whether you need to redirect the customer to back to PayPal

The `GetExpressCheckoutDetails` response contains the `REDIRECTREQUIRED` field, which lets you know if you need to redirect the user after your *Order Review* page. You can use this value to inform the customer on your *Order Review* page that they will be sent to the giropay website to complete the order.

Complete the Transaction

Corresponding to the three fields passed to `SetExpressCheckout` (see [Table 5.1](#)), you must add the following three additional pages to your website:

TABLE 5.3 *Additional pages required for giropay integration*

Page	Description
Order Completion	The page to redirect the customer to after a successful giropay payment.
Order Cancellation	The page to redirect the customer to after a giropay or bank transfer payment is cancelled or fails.
Order Pending	The page to redirect the customer to after a bank transfer payment.

Receive Transaction Status Notification

After PayPal redirects the customer to giropay, you receive transaction status information in the following ways:

- IPN Notification
- Email (only for successful giropay or bank transfer transactions)
- PayPal Account Overview
- PayPal reports

6

Frequently Asked Questions About Express Checkout

This chapter answers some questions about implementing PayPal Express Checkout.

Why should the PayPal Express Checkout button go at the beginning of the checkout?

One of the primary advantages of PayPal Express Checkout is that it allows your customer to skip several steps of the checkout process on your website. Instead of having to enter in a shipping address, billing address, and credit card information, your customer simply clicks the Express Checkout button, logs into his PayPal account, reviews his personal information, and then returns to your website to complete the purchase.

This will increase impulse purchases, repeat purchases, and purchases from shoppers who prefer to pay online using PayPal.

What if my customer needs to enter a new shipping address or edit shipping information?

On your first use of `SetExpressCheckoutRequest`, if your customer selected a shipping address stored in his PayPal account, PayPal recommends that you redirect the customer's browser back to PayPal to edit the shipping address. To redirect the browser a second time, use `SetExpressCheckoutRequest` again *but also include the Token element and value you received on SetExpressCheckoutResponse the first time.* (On the second `SetExpressCheckoutRequest`, you need to include `ReturnURL`, `CancelURL`, and other required elements only if their values are different from the values you included on the first `SetExpressCheckoutRequest`. These values will most likely be different on the second request.)

NOTE: Make sure to update the values of `OrderTotal` and `MaxAmount` to reflect any new costs.

For more information about the Token, see the [SOAP API Reference](#).

What's maximum difference between the estimated OrderTotal and the final OrderTotal?

Question

What is the maximum difference PayPal allows between the estimated `OrderTotal` sent with `SetExpressCheckoutRequest` at Integration Point 1 and the final `OrderTotal` sent with `DoExpressCheckoutPaymentRequest` at Integration Point 3?

Answer

There is no maximum allowable difference. However, at Integration Point 3 PayPal checks that the final `OrderTotal` still passes the PayPal risk model for the funding source the customer originally selected at Integration Point 1. If the originally selected payment methods are no longer acceptable (for example, if the customer's PayPal balance is insufficient to cover the final order amount), `DoExpressCheckoutPaymentResponse` returns error code 10422 to indicate that you must return the customer's browser back to PayPal to select and approve a new funding source.

PayPal expects such a condition to rarely occur, because at Integration Point 1, Express Checkout estimates a possible increase between the estimated `OrderTotal` and the final `OrderTotal`. This estimated difference is factored into the PayPal risk model but is not displayed to the customer.

What if I send my customer to PayPal but he changes his mind?

The customer sees a **Cancel** button prominently displayed on all Express Checkout pages. The hyperlink of the **Cancel** button is the value of the `CancelURL` element you send with `SetExpressCheckoutRequest`. If the customer changes his mind about using PayPal, a click of the **Cancel** button returns the browser to the URL you provide for this purpose. The Express Checkout token is appended to the value of your `CancelURL`, as described in [“ReturnURL, CancelURL, and the Express Checkout Token” on page 31](#). Similarly, if the customer is unable to pay with PayPal (for example, if his PayPal balance is insufficient), all PayPal error pages display a button that returns the customer to your `CancelURL`.

IMPORTANT: After approving use of PayPal and returning from PayPal to your website, if the customer changes his mind about using PayPal to pay you (for example, if the customer decides to pay on your website instead of with PayPal), do not use the final `DoExpressCheckoutPayment` API. A transaction through PayPal occurs only when you successfully invoke `DoExpressCheckoutPaymentRequest`.

What if my customer approves use of PayPal but does not purchase my product?

PayPal does not create a payment transaction until you send `DoExpressCheckoutPaymentRequest` at Integration Point 3 and receive a successful response. Therefore, if the buyer does not purchase a product on your site, there is no transaction.

At Integration Point 2, am I guaranteed that the payment will be successful?

Question

After the customer approves use of PayPal and returns to my website at Integration Point 2, am I guaranteed that the payment will be successful?

Answer

No. PayPal does not authorize the payment or place the customer's funds on hold until you send `DoExpressCheckoutPaymentRequest` at Integration Point 3. The reasons are that you might alter the final `OrderTotal` or the customer might decide not to complete the purchase.

Can I simply add PayPal's username and password fields to my website?

No. A customer's PayPal username and password are sensitive information belonging to the customer and safeguarded by PayPal. Many customers use PayPal because they do not feel comfortable entering credit card information directly on merchants' websites. Although your site is secure and trustworthy, PayPal must prompt customers for usernames and passwords on a PayPal-hosted page to assure them that PayPal is safeguarding their personal financial information.



Frequently Asked Questions About Express Checkout

Can I simply add PayPal's username and password fields to my website?