

Payflow Gateway Overview

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This document applies to:

- Payflow Link
- Payflow Pro
- PayPal Payments Advanced
- PayPal Payments Pro (Payflow Edition)

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Services Overview

This guide is designed to give an overview of several of PayPal's payment solutions which are built on the Payflow payment gateway. These solutions are:

- Payflow Link
- Payflow Pro
- PayPal Payments Advanced
- PayPal Payments Pro

All four of these products use the same core technical integration, which is described in the [Payflow Gateway Developer Guide](#).

- **Payflow Link** is a hosted payment gateway that works with more than 24 payment processors, making it ideal for merchants who want to integrate an existing merchant account. Merchants using Payflow Link are required to submit all sales and authorizations through one of PayPal's hosted templates, either a full page redirect template or an embedded template. Because payment information is submitted through a template hosted by PayPal, use of this solution greatly reduces the PCI compliance burden for merchants. Payflow Link pre-integrates PayPal Express Checkout and Bill Me Later®, so accepting PayPal payments is easy and automatic (PayPal and Bill Me Later payment acceptance cannot be disabled). *Available for merchants in the US, CA, AU, NZ – Bill Me Later is available to US merchants only.*
- **PayPal Payments Advanced** is the version of Payflow Link where PayPal acts as the internet merchant account provider. Unlike Payflow Link, it does not contain a Virtual Terminal feature. It is identical to Payflow Link in all other respects. *Available for merchants in the US.*
- **Payflow Pro** is a fully customizable payment gateway that also works with 24 payment processors. It includes all the features of Payflow Link, but the use of hosted pages is not required, and most merchants choose a non-hosted integration. Payflow Pro can help merchants simplify PCI compliance through use of the optional transparent redirect feature. The use of PayPal Express Checkout is recommended but not required. *Available for merchants in the US, CA, AU, NZ.* Bill Me Later is available to US merchants who use the hosted checkout templates.
- **PayPal Payments Pro (Payflow Edition)** is the version of Payflow Pro where PayPal acts as the internet merchant account provider. It is identical to Payflow Pro in all other respects, except that merchants are required to use PayPal Express Checkout as part of their

agreement with PayPal. Bill Me Later is available to merchants who use the hosted checkout templates. *Available for merchants in the US.*

PCI compliance options

Payflow gateway offers two methods to help merchants with PCI compliance:

- 1) All Payflow gateway offerings enable the use of PayPal hosted checkout templates for securely passing transaction data to the Payflow server and collecting credit card acceptance data. PayPal enables you to customize hosted checkout pages so that they reflect the look and feel of your website – including one template that embeds right into your checkout page. Payment details never pass through your server.
- 2) In addition to the hosted pages, Payflow Pro and PayPal Payments Pro (Payflow Edition) also allow merchants to achieve easier PCI compliance through a feature known as transparent redirect. With transparent redirect, payment details are entered directly on your website, but when the user presses submit, the credit card details can be posted directly to PayPal rather than your own servers, thus eliminating your need to transmit payment data.. This method uses PayPal's hosted pages in the background to pass the data, but these hosted pages are not visible to your users. This integration method requires more technical effort than the standard Payflow Pro or hosted checkout integrations.

Account management

All merchants who sign up for a PayPal payment solution that utilizes the Payflow gateway receive an account login to PayPal Manager at <https://manager.paypal.com>. PayPal Manager is the interface through which all merchants would manage their gateway account and run reports. In addition, merchants using the hosted checkout templates need to make important configuration settings on this site in order for their checkout to function properly.

Merchants using PayPal as their internet merchant account, as well as any merchant integrating PayPal Express Checkout, would also have a PayPal Merchant Manager account at www.paypal.com. Merchants can see the processing fees that were deducted from their payments at www.paypal.com, as well as accessing other important data.

Merchants and developers can also take advantage of the Payflow reporting APIs described in [Payflow Gateway Reporting Developer's Guide](#). PayPal

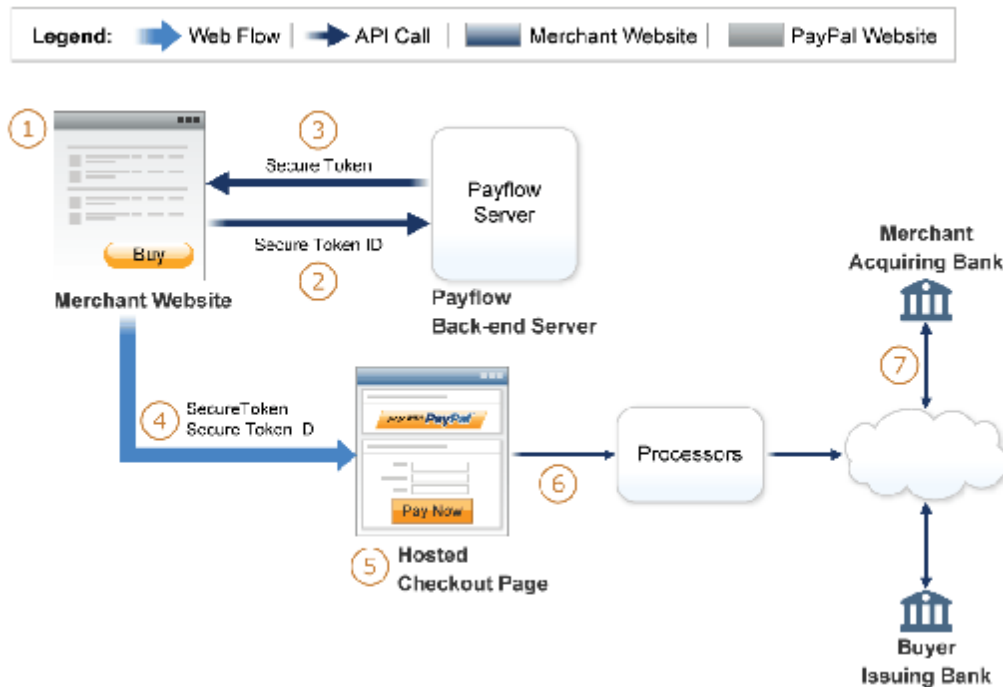
Manager is also a client of the Reporting API; everything that Manager can do with reports is available to you through API calls. You can store this information in your local database and use it as needed.

Designing your checkout

The first step in integrating any of these products is designing the checkout experience. Merchants integrating the hosted checkout templates should note that the hosted pages must be integrated as the last page in the checkout experience, so that clicking the Buy Now, Check out with PayPal, or Check out with Bill Me Later buttons would execute the sale or authorization transaction. The hosted templates cannot be used in an earlier position in the checkout flow. In addition, no other form fields can be included on the same page as the hosted checkout template, besides those on the hosted template itself. For more information on designing your checkout, please consult the [Embedded Checkout Design Guide](#).

Step by step integration overview

Developers should use the following basic steps to integrate these offerings into their websites. Detailed information can be found in the [Payflow Gateway Developer Guide](#).



The following numbers correspond to the numbers in the figure:

1. The buyer selects items on your website and clicks Buy.
2. You send a transaction request to the Payflow server for a secure token with your token ID and the transaction data. The Payflow server securely stores the data. Any data in the request besides the shipping and billing data is non-editable and cannot be changed. NOTE: You cannot send any credit card information such as the account number or expiration date in the request.
3. The Payflow back-end server returns a one-time use secure token and your token ID.
4. You submit the secure token and your token ID in an HTTP Post to Payflow front-end applications server.
5. The Payflow applications server retrieves the amount and other transaction data from the Payflow back-end server using the secure token. The applications server displays the information to the buyer in the hosted checkout page. The buyer edits the address fields displayed, enters other required data such as the credit card number and expiration date, and then approves the page for processing.
6. The Payflow applications server connects with processors who perform a real-time authorization.
7. The transaction is processed and the buyer's payment is transferred to your merchant account.

Sample code and SDKs

Java and .NET SDKs are available for the Payflow gateway on the x.com [SDK index](#).

Sample code can be found on the PayPal Integration blog at www.paypal.com/integrationblog. This code is example only, and developers should review the code carefully and make changes needed to correspond to their own website.

Video instructions on how to integrate can be found in these two videos: [Part 1](#) and [Part 2](#).

Implementing Payflow Pro and PayPal Payments Pro (Payflow Edition) using transparent redirect

Overall, the integration process for transparent redirect is similar to the integration process for hosted pages. You still begin the process by creating a secure token. The difference is that the payment card input fields are displayed directly on your web page, from code contained on your server. The browser posts sensitive payment details directly to Payflow when shopper presses Submit, avoiding your server and easing the PCI compliance burden. The buyer is directed back to your website via a ReturnURL you enter into <https://manager.paypal.com>, and the whole transparent redirect experience is invisible to your buyer.

The main benefit of transparent redirect is that, unlike using the hosted page, there are no design constraints to using transparent redirect, as more information than just the payment information can also be collected on the page where transparent redirect is used. You would just pick up this data on the return call from Payflow once the transaction is processed, vs. knowing this data before the transaction was submitted to Payflow. Also, this integration method may be preferred by merchants who do not want to give control over any part of their checkout to a third party.

Overall, PayPal recommends use of the hosted templates over use of the transparent redirect feature. First, the hosted pages are easier to implement, as the credit card input fields are pre-created and the PayPal payment method is pre-integrated. Second, use of the hosted templates automatically enables merchants to take advantage of changes in design that PayPal may make over time that would improve conversion. Third, use of the templates would also automatically enable merchants to take advantage of new payment methods rolled out by PayPal, designed to increase conversion. Finally, a merchant using the hosted pages can easily see that they are operational, and hence, that they are using a PCI compliant payment collection. As transparent redirect is an optional feature of our classic API integration, a less experienced developer may accidentally deploy without this feature fully integrated and not be aware that they are not using it.

Please note that merchants using PayPal Payments Pro (Payflow Edition) – where PayPal provides the internet merchant account – are required by the terms of their user agreement to offer PayPal Express Checkout, regardless of the integration method. PayPal periodically audits websites of these merchants to determine compliance with the user agreement and to ensure

the business information is aligned with the information provided during underwriting.

More details on transparent redirect can be found [here](#).

Implementing Express Checkout Shortcut using Payflow integration

PayPal recommends that all merchants and developers integrate Express Checkout shortcut, which allows PayPal members to skip bypass filling in information in a site's regular checkout and instead check out quickly using address and payment details stored in their PayPal account. Use of Express Checkout Shortcut has been shown to improve website conversion rates. In addition, use of Express Checkout Shortcut via the Payflow integration is required for PayPal partners who would like to certify their PayPal Payments Advanced or PayPal Payments Pro integrations with PayPal.

PayPal offers two main ways to integrate PayPal Express Checkout – the direct Express Checkout integration (which requires API credentials to authenticate) or the Payflow integration (which requires Payflow credentials to authenticate). For any merchant integrating Payflow Gateway payment solutions, it is highly desirable to integrate the Payflow integration of Express Checkout, to minimize the technical effort required to integrate. In addition, merchants would be able to use a single set of credentials to authenticate on both their Payflow gateway payment solutions and Express Checkout. More details on how to integrate can be found in the [Express Checkout for Payflow Pro](#) guide.

Implementing Bill Me Later

Bill Me Later is a payment method currently available only on the Payflow hosted checkout templates. Shoppers who click the Bill Me Later button will be redirected to the PayPal website to complete their purchase. Payments will be transferred into the merchant's PayPal account usually in minutes.

Available value added services

Recurring Billing

Recurring Billing is a scheduled payment solution that enables you to automatically bill your customers at regular intervals—for example, you can bill your customers a monthly fee of \$42 for 36 months with an initial fee of \$129.

Recurring billing is an optional add-on service. More details on this service can be found in [Recurring Billing Service Guide for Payflow Pro](#). This is the correct guide for all four payment services described in this guide.

Fraud Protection Services

For added protection from fraud, merchants can utilize our Basic or Advanced Fraud Protection services. Merchants can also utilize Buyer Authentication Service, which supports the Verified by Visa and MasterCard SecureCode programs. For more information on these services, see the [Payflow Pro Fraud Protection Services User's Guide](#).

Information for members of the PayPal Partner Program

The following information is provided specifically for members of the PayPal Partner Program, who enable these Payflow-based payment solutions to work in a variety of shopping carts and other solutions.

Passing configuration variables for PayPal Payments Advanced and Payflow Link

As mentioned earlier, use of the hosted checkout templates requires a variety of configuration settings to be set at <https://manager.paypal.com>. To make it easy for your merchants to use these offerings and reduce calls to your support team, PayPal recommends that partners pass these configuration variables to PayPal on a merchant's behalf. More information about a how to pass these configuration variables can be found in [Configuring PayPal Payments Advanced & PayPal Payflow Link for Partners](#).

Designing administrative panels in partner applications

In order to maximize the success of your merchants in bringing their stores live, PayPal suggests an optimal design of the configuration panel in your administrative interface. This design can be found in [Configuring PayPal Payments Advanced & PayPal Payflow Link for Partners](#).

BN codes for tracking partner payment volume

For PayPal Payments Advanced, PayPal Payments Pro (Payflow Edition), and Express Checkout, PayPal pays revenue share to certain partners as per the terms of that partner's contract. Partners must pass what are known as "BN Codes" to have PayPal track the payment volume originating from their application. BN codes for PayPal Payments Advanced and PayPal Payments Pro offerings operate identically to BN codes on other PayPal offerings.

Reseller and Referral Programs

PayPal offers two programs for partners to make additional revenue by selling our Payflow Link and Payflow Pro solutions – a Reseller program and a Referral program.

Payflow Reseller Program

The Payflow Reseller Program allows you to buy Payflow Link, Payflow Pro, Recurring Billing, and Fraud Protection Service from PayPal at a discount and re-sell them at a profit. With this program, you control retail pricing, you can onboard merchants, you invoice merchants, you own the contractual relationship with merchants, and you can monitor merchant performance through an online tool. This option allows the greatest control over the merchant experience, as you must provide key parts of the experience yourself (such as pricing and billing).

Referral Program

With the referral program, you can receive a referral bonus on the Payflow Link, Payflow Pro, Fraud Protection Service, Recurring Billing, and PayPal Express Checkout solutions used by merchants you refer. With this program, PayPal is responsible for retail pricing, onboards all merchants, invoices merchants, owns the contractual relationship with merchants, and can market to the merchants. You would not have access to reports about individual merchants you referred. This program significantly reduces the partner's operational responsibility vs. the Referral Program, and still provides strong compensation for the merchants you refer.