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Buying and Selling Electronically: How Online Payment Services Work

If you've ever purchased anything online, chances are you've used an online payment service. These services, like PayPal, let small retailers and individuals accept credit card payments for the items they sell. The buyer pays the online payment service directly, typically via credit card; the service then processes the credit card payment and passes the funds on to the seller, typically via an electronic deposit in the seller's bank account.

For small sellers, online payment services are a necessary part of doing business online. For buyers, they're simply the way to pay for goods and services offered at many websites and via online auctions.

The most popular online payment service today is PayPal, which is owned by eBay and used in millions of eBay auctions. But there's a new competitor in the market, in the form of Google Checkout, which promises to give PayPal a run for its (electronic) money.

Which of these two services should you use? Both PayPal and Google Checkout have their pros and cons, so choosing one over the other depends on your own personal and/or business needs.

Read on to learn more.

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Put simply, an online payment service functions as a “middle-man” between buyers and sellers, handling the details of the payment process. The need for such a service exists because, for most sellers below a certain size, it's both impractical and unprofitable to handle their own electronic payments.

If you're a big merchant, like Best Buy or L.L. Bean, you can afford to design and invest in your own electronic payment systems. Even medium-sized retailers can contract with banks and other financial institutions for merchant checking accounts and online checkout services. But small retailers and individuals selling online don't have the time or money to invest in custom-built payment systems and aren't big enough to qualify for merchant credit card accounts and similar services.

For these small merchants and individuals, the only way they can accept electronic payments online is to let someone else do it for them—hence the creation of PayPal and similar online payment services. These payment services are big enough to build their

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own electronic payment and checkout services; they provide these services to smaller merchants and individuals so that they can accept credit card payments from their customers.

These online payment services are also used to facilitate individual payments in online auctions. That's why eBay acquired PayPal in 2002—to provide electronic payment services for all its online auction customers.

Tracking a Typical Transaction

How exactly does an online payment service do what it does? To answer that question, let's look at a typical online transaction.

The transaction starts when a customer (let's call him "Bob") goes to the website of a small online retailer that sells collectible sports cards. Bob finds a card he wants to purchase and clicks the "buy" button.

At this point, the online payment service kicks in. The website has previously contracted with the payment service to handle all its checkout and payment processes. As such, the retailer has followed the service's instructions to insert the proper HTML code onto the site's web pages. The "buy" button is part of the service's HTML code.

When Bob clicks the "buy" button, an electronic command is sent over the Web to the online payment service. The service now takes over the rest of the purchasing process and directs Bob's web browser to the payment service's website.

The online payment service now displays for Bob a shopping cart page. This page shows the item that Bob wants to purchase, as well as other information regarding the purchase. Bob can, if he wants, return to the retailer's website to resume shopping, or he can click the "checkout" button to finalize his purchase.

Bob, his shopping finished, clicks the "checkout" button. This action displays another page on the online payment service's website, this one showing all the items in Bob's shopping cart, along with shipping/handling charges and sales tax (if any). This information is inserted by the payment service based on the retailer's pre-arranged instructions. (That is, the retailer specifies ahead of time how much shipping and handling to charge per order, as well as whether or not to charge sales tax.)

If Bob concurs with the total amount listed on the checkout page, he clicks a "pay now" button. This action directs him to a payment page, again hosted by the online payment service. What happens next depends on the payment service.

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If it's a major payment service, such as PayPal or Google Checkout, Bob will be asked if he's a member of that service. If he is, Bob can simply enter his username and password, and the rest of his personal information—address, phone number, and so on—are retrieved from the service's database and automatically entered onto the payment form.

If it's a smaller payment service—one that doesn't require membership—Bob is instead prompted to enter his personal information. Bob enters his name, address, phone number, and so on into the web form.

In either instance, Bob is now working on a secure web page. A secure page is one that uses Secure Sockets Layer (SSL) security to encrypt the information you send; this protects your personal data from prying electronic eyes and identity thieves.

Next, Bob has to specify how he's going to pay for his purchase. Nine times (or more) out of 10, online buyers pay via credit card. (In fact, some online payment services accept only credit card payments.) So Bob enters his credit card number and expiration date and then clicks the “pay” button to authorize payment.

Bob's credit card information is now transmitted to the online payment service. The service contacts the issuing bank for Bob's

credit card, ensures that Bob has enough left on his credit line to cover the purchase, and charges the purchase.

At this point, several things start to happen. First, Bob is notified by the online payment service that his purchase has been completed, in the form of a confirmation web page. Second, the retailer is notified by the online payment service of the purchase, typically via an email message that includes information about what was purchased, as well as Bob's shipping information. Third, an electronic transfer of funds is initiated from Bob's credit card company to the online payment service; the funds don't arrive immediately, but the transfer process is started.

Note what doesn't happen at this point: The retailer does not receive specifics about how Bob paid. Bob's credit card information is retained by the online payment service, but not transmitted to the retailer. This keeps Bob's financial information secure and helps to protect Bob's credit card from theft.

Once notified of the purchase, the retailer may send a confirmation email of its own to Bob, letting him know that the purchase has been put into its system and notifying him of the approximate ship date. The retailer certainly puts the shipment into process so that the item purchased can be pulled from inventory, packed appropriately, and sent to the designated shipping service. Depending on the retailer, this procedure might happen

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immediately, or it may take several days to pack and ship the item. Note that the inventorying, packing, and shipping of the item are all handled by the retailer, not the online payment service.

For its part, the online payment service now waits for the funds to be transferred from Bob's credit card account to its bank account. This transfer might take a few minutes or it might take a few days; quicker is the norm. Once the funds are transferred from the credit card company, the online payment service places those funds in the retailer's account—minus any fees charged by the payment service, of course—and notifies the retailer that the funds are available for withdrawal.

The retailer can now withdraw the funds from Bob's purchase. Some retailers withdraw all their accrued funds at the end of the day or the week; some withdraw funds as soon as they're available. In any case, the retailer has the option of having the payment service send it a check or of having the funds electronically transferred to the retailer's bank account. It might take a week or more to cut and mail a check; an electronic funds transfer typically takes no more than two to three days.

Note that the retailer ships out the purchase before it physically receives the funds for that purchase. The reason is that the

retailer trusts the online payment service to transfer the funds owed; since the actual payment has been made (by Bob to the online payment service), the retailer knows the funds are in the system.

And that ends the transaction. Here's what happened, from each entity's point of view:

- Bob shops at the retailer, places his order with the online payment service, pays the online payment service, and receives his item from the retailer.
- The retailer offers the item for sale to Bob, receives notice of the sale from the online payment system, receives payment for the item from the online payment service, and then ships the item to Bob.
- The online payment service receives the order from Bob, transmits the order to the retailer, receives payment from Bob (actually, from Bob's credit card company), and then pays the retailer.

So the online payment system serves as the “middleman” for the transaction, both processing the order (using its own checkout system) and accepting Bob's credit card payment. The retailer receives both notice of the sale and processed payment for the sale from the online payment service.