



RENAISSANCE
EAST MIDLANDS
museums for
changing lives



Payment Systems

Whether you go for a shop application or a shop service, you will require a way of getting money from your customers. You could get people to place orders on your website and send you money by cheque but this throws away the huge advantage of immediacy in online commerce - people buy online because they want things NOW, so you need to get their money before they disappear off to another site to make the purchase. In practice, therefore, you need to be able to accept payments by plastic - credit or debit cards.

There are two basic options for getting payments by card: set yourself up as a merchant or use an online payment service. The process of setting up as a merchant is that you apply to a bank to accept online payment by card, and once the bank has approved your application, you need to use a payment gateway service. The gateway service acts like a bridge between your shop and the bank. The customer makes a purchase in the online shop and the last stage for the checkout process is that s/he enters credit card details into a web form that then gets sent to the payment gateway. Your customer probably may not even know this is happening because you never visibly leave your website while this is going on. When the payment gateway receives the transaction details and credit card details, it checks the information and if valid the sale is approved. Your customer gets a confirmation message, and the gateway service instructs your bank, and your account is duly credited. It is possible that your bank may provide the gateway service but it is also common to use a separate service for this such as sagepay.com.

The payment models for the service vary, but quite common is a basic flat fee plus a percentage charge per transaction. These tend to be quite a small percentage so this model is a very viable one for any museum hoping to sell at least £5,000 of goods per year. Setting up as a merchant is quite a laborious procedure because banks and payment gateway services have to be extremely careful about fraud. However, the benefit of becoming a merchant is that the entire transaction is completed inside your website, which means that you don't give your customers a chance for second thoughts, as happens when you use an online payment service.

From a security point of view, using a payment gateway does create some extra requirements. You will need an SSL security certificate which costs between £20 and £100, depending on the issuing authority. The certificate encrypts data being sent between your site and your visitors and you will be familiar with it on websites where the address changes from <http://...> to <https://...>

Setting your site up to work with a certificate is a bit of a technical challenge, and also you won't be able to run your website on standard low-cost shared hosting. If you are using a shop application that stores credit card information inside a database on your webserver, you create some extra security risks so I would advise against applications that do that. In

fact, you will probably find that the rules of your merchant account prevent you from doing this, and also make stipulations about encrypting confidential data.

You probably already get the message that setting up as a full online merchant is not for the faint-hearted so a less demanding alternative is to use an online payment service. We've already seen the example of PayPal and there are others, such as nohex and Google checkout. In these models, your customer completes their purchases on your website but when it comes to the payment stage, the customer is redirected to an external site such as PayPal, to do the actual payment. You get rid of many of the security headaches because all the really confidential data is entered on the PayPal site. In return for this service, you pay a commission of approximately 5%. The downside of these external services is that your customer leaves your site and may decide not to proceed with the purchase, or may get confused by the PayPal service, or may just feel unclear about what the relationship is between you and this 'other' service. Also, for a business that wants to project a professional image, using a third-party payment service may seem a bit 'Mickey Mouse'. However, I think people are getting increasingly used to interlinked websites (e.g. having content from Youtube on the Guardian newspaper site), so the problem of going to another site to do your payment is likely to reduce in the future. Also, a tool like Google Checkout is reasonably easy to implement provided you don't need really complex variables (such as being able to change colour and size in addition to quantity). In fact, you can see Google Checkout in action on the Modus server used by a number of museums:<http://www.modes.org.uk/index.asp?page=webhosting>

From your point of view, you log into your PayPal account and transfer receipts across to your nominated bank account. You can actually use your PayPal account to make payments as well, although that aspect of the service is outside our current subject. You won't have the same level of control in PayPal as you would with a payment gateway like Protix, because you can't do things like void a sale and credit money back to your customers. However, you can find alternative methods of returning money such as just issuing a refund by cheque.

Summing up on payment systems, the online merchant account is best suited to organisations planning to sell at least £5,000 worth of merchandise per year, and perhaps to organisations already set up to take payments using chip and pin, because they have already been authorised by the bank for part of the card payment process. Online payment services like PayPal, Worldpay and nohex are now well established so although they offer a bit less than a full payment gateway service, they represent a very feasible alternative for small businesses.

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