NetPayments User Guide

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Terminology used

Merchant
Banking term for account holder of credit card processing account

NetPayments
Credit card processing service offered by Netshopperuk Limited

Transactions
Individual amounts processed through NetPayments

Banking System
Banks network and infrastructure for processing electronic credit card transactions

Customer
The Merchants credit card-holding customer

Site
Merchant’s web site

Introduction to NetPayments

NetPayments is a secure online credit card processing facility that enables merchants to receive payment for goods and services sold on their site. Transactions are processed in a number of ways, in accordance with the services subscribed to by the merchant (see Services).The merchant and customer both receive confirmation e-mails and the money is automatically transferred from the card holder's account to the merchant's within the Banking system.

In conjunction with a merchant's web site and their merchant account, NetPayments simplifies the process of

- Credit card authorisation
- Collecting funds
- Implementing security measures
- Logging transactions
- Conducting refunds
- Data warehousing of transaction data.

And because Netshopperuk handles all of the security issues involved, it means you don't have to; your site doesn't even need to have access to a secure server.

To start receiving credit card payments right now, contact Netshopperuk free on 0800 096 2498 to set up your NetPayments account.

How does it work?

Enabling your customers to pay with a credit/charge card for goods and services with NetPayments is as simple as this:

On your site

- They visit your web site and find something they want to buy
- Add it to their basket
- Click on a button in the checkout that says "Pay for your goods"
- Your online database records the goods they have ordered and sends the customer to our secure NetPayments servers to pay for those goods

At NetPayments

- They access the secure server where NetPayments is hosted and enter their credit card details
- Wait for a few moments whilst the bank is contacted to authorise the transaction
- The results are then displayed on-screen, together with a reference number
- NetPayments transparently communicates the result of the transaction with your web site

At the bank

- If the transaction was successful, your customers credit card is automatically debited and your merchant account credited with the funds

After the transaction

After a successful transaction, a confirmation e-mail is sent to the merchant and customer.

All transactions and their details are stored within a secure environment. The merchant is able to view all details of the transaction except for the credit card number, which, for security purposes, are not available to anyone.

NetPayments Client Area

From the NetPayments Client Area, the merchant can review transactions, customer details and issue refunds. Also available are merchant details, reconcile reports and a multitude of search facilities related to transactions.

Billing

On or about the first of every month Netshopperuk will produce an electronic invoice that will be sent to the e-mail address provided by the merchant. The invoice will summarise the preceeding months transactions and show the amount that Netshopperuk are charging in commission.

Within 2 days the NetPayments Direct Debit will collect the transaction charges from your bank.

Merchant’s Guide

Your web site

If you have employed a web site development company to produce your site, Netshopperuk will guide them through the process of integrating it with NetPayments.

Typically, a web site that uses NetPayments will

- Be hosted with an established Internet Service Provider
- Be accessible via a domain name such as http://www.yourdomain.co.uk/
- Be dynamic, i.e. written in a server-side scripting language such as ASP, ColdFusion or PHP
- Have an online database or some means of storing product and order information
- NetPayments Lite can be used to collect credit card details from your site for processing through a “swipe machine” (pdq)
- Netpayments schedule can be used by any company wishing to recur transactions on a regular basis, ie. Subscription charges. This does not necessarily require a website.

Security

Once the customer has left your site, they enter their credit card details at NetPayments, hosted on a secure server.

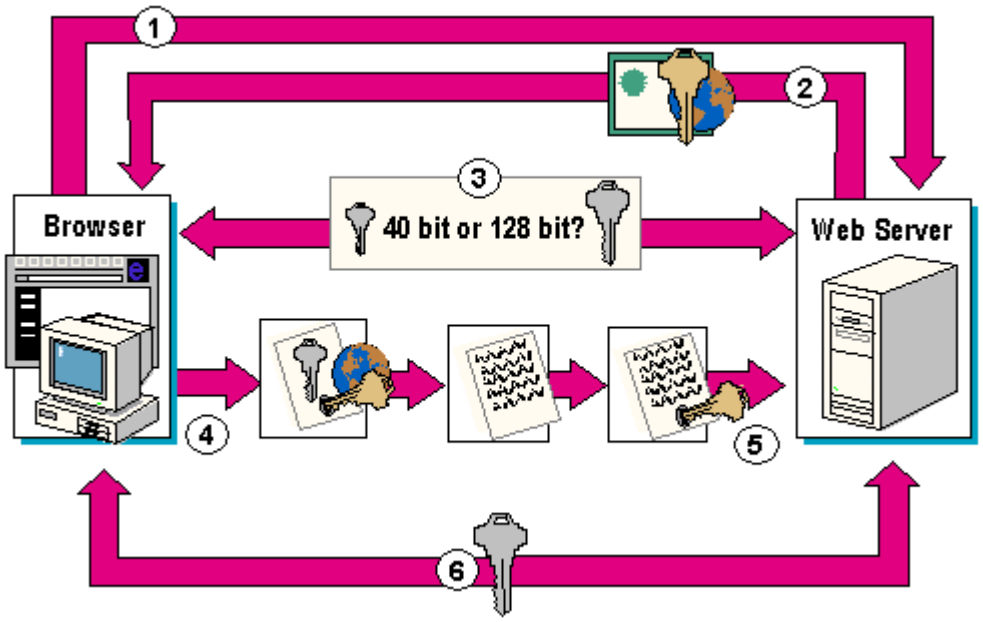
Secure Sockets Layer

A secure server communicates with a browser via a Secure Sockets Layer (SSL) session. SSL encrypts the data that travels between the browser and the server, ensuring that even if a credit card number is intercepted by eavesdropping software over Internet ("packet sniffers"), the number itself would be indecipherable.

An SSL session is created using the following process, as shown below:

1. The Web browser establishes a secure communication link with the Web server.

2. The Web server sends the browser a copy of its certificate along with its public key. (The certificate enables the browser to confirm the server's identity and the integrity of the Web content.)
3. The Web browser and the server engage in a negotiating exchange to determine the degree of encryption to use for securing communications, typically 40 or 128 bits.
4. The Web browser generates a session key, and encrypts it with the server's public key. The browser then sends the encrypted session key to the Web server.
5. Using its own private key, the server decrypts the session key and establishes a secure channel.
6. The Web server and the browser then use the session key to encrypt and decrypt transmitted data.



When the credit card data arrives at NetPayments, the transaction server that handles the processing is secured behind a firewall.

Altogether, this means that you don't have to be worried about the security issues as Netshopperuk takes care of it all for you.

Viewing transactions and issuing refunds

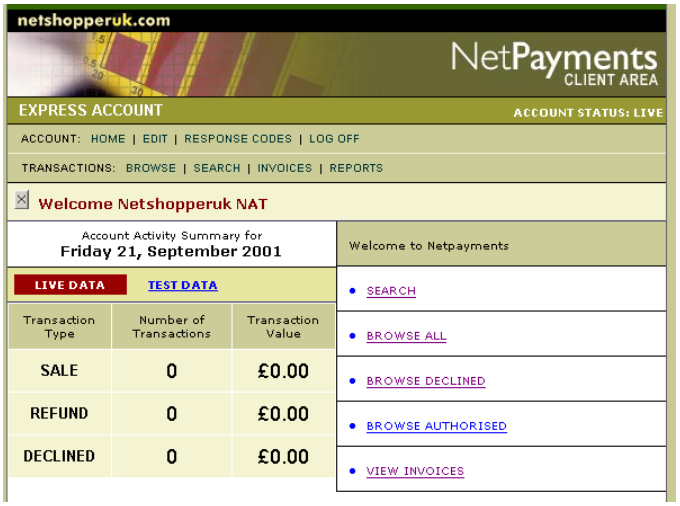
The merchant can log on to NetPayments Client Area and view the transactions that have been processed through their NetPayments account. From within the Client Area it is also possible to issue partial or full refunds against a transaction.

To access the NetPayments Client Area

1. Connect to your Internet Service Provider
2. Go to http://www.netshopperuk.co.uk
3. Select Customer Login Area <Netpayments>
4. Enter your NetPayments username and password (provided by email)

When you have logged on to the Client Area, the first screen displays all options and the days summary:

- Search – for transactions
- Browse All – browses every transaction
- Browse Declined
- Browse Authorised
- View Invoices – invoices that we have billed to you for our transaction charges.



To display the transactions that appear on an invoice, select the invoice date from the drop-down list and click **Get Invoice Details**. This will present a summary of the invoice, click “view details” to see transactions charged for.

To view the details of an individual transaction, click on the any of the transaction information.

To issue a full or partial refund against that transaction, click on the **Issue Refund** link.

Complete the details for the refund, including your comments and click the **Process Refund** button. The results of the refund will be displayed in the following page.

Frequently Asked Questions

I have a web site but no merchant number. What should I do?

Go to http://www.netshopperuk.co.uk/ and find the latest information on the banks that we support.

Do I really need a merchant number in order to receive credit card payments?

Yes. Currently, we do not offer a bureau service (where merchants use Netshopperuk's merchant number to receive payments for goods or services sold on their web site). However, this may change in the future, so please ask if you are unable to obtain a merchant number.

Can I use a merchant number from any bank?

We currently support merchant numbers issued by Barclays, NatWest, the Royal Bank of Scotland, HSBC and Amex.

Can I use someone else's merchant number?

Yes, if they are offering a bureau service and you have an agreement with them to that effect.

Can I use my existing merchant account to conduct online transactions?

Possibly. Your merchant account will have a status of either offline (i.e. enabling you to use a PDQ terminal or a swipe machine) or online (for use on the Internet, including services such as NetPayments).

If you have an online merchant account, you can set up a NetPayments account and start trading straight away. With an offline merchant account, you must contact the acquiring bank and apply to alter the status of your merchant account to online.

Your merchant account can either be offline or online; not both.

The bank asks several questions about online security in the application form. Can you answer them?

Possibly – what are they?

Question 1 is "Describe the encryption which will be used for all transactions containing credit card information whilst being transmitted over the Internet".

Credit card details are encrypted whilst in transit by means of a Secure Sockets Layer (SSL) session. SSL sessions use Netshopperuk's 128-bit global certificate issued by Verisign.

Question 2 is "Describe the internal network partitioning and the firewall technology which will be used to protect this site."

A Watchguard Firewall 1 protects Netshopperuk's public network. This is where the web and transaction servers reside.

Can I fax the NetPayments application forms through to Netshopperuk?

No. We require the originals to be completed by you and posted. This is because we then send the direct debit mandate on to the acquiring bank and they will only accept signed originals.

How much does it cost for a NetPayments account?

There are no set-up fees for creating up a NetPayments account.

Netshopperuk currently charges a 2% transaction fee for the total monthly transactions. There are certain higher volume discounts that are available on application

For example, if your NetPayments account processes £10,000 worth of transactions in one month, you will be charged

£10,000 at 2%	£200.00

If my web site sells an item for £50, does Netshopperuk take their commission from that £50 before my account receives the money?

No. Netshopperuk doesn't have access to the funds involved in any transaction.

So how do Netshopperuk collect their transaction charges?

We issue a monthly retrospective invoice by e-mail that summarises all transactions included within the period stated on the invoice. This amount is then charged by direct debit to your bank account.

Does Netshopperuk's 2% transaction charge include the banks fees?

No. The banks fees are in addition to our transaction charge.

Depending on the bank and type of merchant account, the bank may make the following charges for your merchant account:

- A one-off set-up fee
- A monthly maintenance charge
- A commission on all payments made into your merchant account.

How quickly is my bank account credited with the money from a transaction?

That depends on the type of merchant account you have.

With a Barclays Instant account, the funds are transferred to your account normally within 48 hours. If you have a Barclays Enable account, the funds will be cleared within 40 days. Transactions conducted through AMEX and RBS accounts are subject to their own processing times.

Netshopperuk has no influence over these times.

Is there any way I can view my transactions?

Yes. Once you have begun trading, you will have access to the NetPayments Client Area at

https://www.netshopperuk.com > Customer Login > NetPayments

Enter your NetPayments username and password. Once logged on, you can see a summary of transactions for the day.

If someone returns their goods and asks for a refund, what should I do?

You can issue a full or partial refund against any transaction processed by NetPayments. If you log in to the online facility and find the transaction in question, you will then be able to authorise a refund against it.

If the transaction is for several items and two are returned at different times, can I issue more than one refund?

Yes. You can issue an unlimited number of partial refunds up to the total value of the transaction.

How quickly will the customer get their money back once I've issued the refund?

It will be in line with the processing times of your bank and the type of merchant account you have. For example, if you have a 48 hr account the refund will take the same time to process as the charge.

Does NetPayments store the credit card numbers?

Yes. We store the credit card numbers for an indefinite period. This is to enable you to process refunds without having to contact the customer and asking for their credit card number again.

However, the credit card numbers are stored behind a firewall in an encrypted format, so that if in the unlikely event of the server's security being compromised, the numbers themselves would be indecipherable and couldn't be used fraudulently.

If I live outside the UK can I still use your service?

At present our service is for UK bank account holders only, so if you reside outside the UK you have to hold a UK bank account in order to use Netpayments.

What currency will the customer be billed in?

The customer will be billed in whatever currency your merchant number is set for, usually Pounds Sterling. However, you can take payments from customers in any of the currencies supported by NetPayments. That list is available on our web site.

What kind of web site do I need in order to use NetPayments?

Ideally, a dynamic, database-driven web site.

Static web sites use HTML and graphics files to display web pages in a browser. The pages look the same to everyone who visits them.

Dynamic web sites use pages that are created in response to requests from browsers. Like static sites, dynamic sites also use the HTML language to display text and graphics on the page but they also use a server-side scripting language such as ASP, ColdFusion or PHP.

If you have a static HTML site, you will find you are greatly limited when using NetPayments. Netshopperuk strongly recommends using a dynamic web site together with an online database to store product and order information and to interface with NetPayments.

If in doubt, please contact Netshopperuk who will be able to give you advice.

I'm not sure who to get to design and create a web site for me so I can then use NetPayments. Will Netshopperuk develop my site?

Yes, NetshopperUK have many clients that we have assisted to create ecommerce sites.

Whilst I'm waiting for my site to be built, is it safe for customer's to e-mail me their credit card details?

No. It is possible for an e-mail to be intercepted and read by someone unknown to both the sender and the recipient. If the e-mail contains credit card details, those details could then be used fraudulently.

The only safe way to send credit card information over the Internet is by encrypting the details whilst they are in transit. NetPayments does this by using an SSL session.

The only safe way for credit card details to be e-mailed is to encrypt the e-mail itself using a product such as Pretty Good Privacy (PGP), available from http://www.pgp.com/. This method requires both the sender (the customer) and the recipient (the merchant) to have PGP installed and for the sender to have a copy of the recipient's public key.

I have an appropriate web site, an online merchant account and want to start using NetPayments. Who should I contact?

Call Netshopperuk free on 0800 096 2498 and ask to set up a NetPayments account.

The staff will be happy to help you and also give you any advice you might need regarding online trading.

Useful Resources

General Information: http://www.netshopperuk.co.uk/
Merchant Information: http://www.bms.barclays.co.uk/
Security Information: http://www.trustwise.com/
Internet Trading Information: http://www.which.net/webtrader/

Developer’s Integration Guide

Your web site will typically work and interact with NetPayments in this way:

1. The customer adds goods to basket on your site.
2. When ready to pay, customer goes to checkout.
3. They enter their name and address (optional - if you don't ask them these details, NetPayments will).
4. The goods that they have ordered are entered into your database, along with their personal details (if your site asked for them).
5. A unique OrderID value is generated by your site, associated with that Order record (typically it will be the primary key for the new record in the Orders table in your online database).
6. Customer clicks on button or hyperlink that reads "Click here to pay for your order".
7. The form or hyperlink points to NetPayments and passes several variables as hidden form fields or as a query string.
8. Customer enters credit card number at NetPayments.
9. The card is then processed which usually takes about 10 seconds.
10. When the bank has sent their response to NetPayments, a page on your web site (we refer to this as the ResponseURL) is passed several form variables, based on the results of the transaction. This happens in the background and the browser stays at NetPayments.
11. The ResponseURL page on your site updates the customer's record in your online database based on the values passed to it.
12. The customer then either (i) clicks on a link saying "Click here to return to the merchant's site" and gets redirected to a page you specify (the ApproveURL or RejectURL, based on the outcome of the transaction) or (ii) types in another URL and goes to a different web site
13. The merchant then receives a NetPayments e-mail informing them of the new order.
14. The customer also receives an e-mail saying that credit card will be debited the amount specified.
15. The merchant logs in to NetPayments Client Area to check the details of the transaction and confirm that it was successful.
16. The merchant then logs in to their own web site via a mechanism that the developer has created, finds the new customer order (based on the OrderID value send to NetPayments) and sees what products or services he now has to supply.

Opening a NetPayments account

In order to use NetPayments, the merchant must first contact Netshopperuk and open a NetPayments account. The NetPayments account stores a range of settings, some of which relate to the merchant account and some of which relate to their web site. Some of those values are created by Netshopperuk and some of them are provided by either the merchant or their web site developer.

The names of those values are listed and described below.
They are applicable to all NetPayments accounts:
Express
Standard
Schedule
Defer
Lite

NetPayments settings

AccountStatus test|live
Test mode is used whilst testing the integration between your web site and NetPayments. Live mode is used to receive credit card payments.
MerchantName
The name of the merchant as it will appear on NetPayments.
AcquiringBank
The acquiring bank that holds your merchant account.
MerchantNumber
The merchant number as issued by the acquiring bank.
SecondaryMerchantNumber
Your second merchant number (Royal Bank of Scotland merchants only)
SortCode
Sort code of the account to be credited with transactions.
AccountNumber
Account number of the account to be credited with transactions.
Currency
The currency in which your account will be credited.
TID
A unique value used by Netshopperuk and your bank to identify different merchants.

NSACCESS
A unique value used to identify each NetPayments account.
ResponseURL
The page on your site to which NetPayments posts a range of form variables containing the result of each transaction. A ResponseURL is a full URL, including http:// or https://

ApproveURL
After a successful transaction, a link is displayed on NetPayments that says “Click here to return to the merchant’s site”. The ApproveURL is the full URL of the page on your site to which they will be taken when that link is clicked.
RejectURL
After a failed transaction, a link is displayed on NetPayments that says “Click here to return to the merchant’s site”. The RejectURL is the full URL of the page on your site to which they will be taken when that link is clicked.

MerchantEmailReceipt yes|no
Determines whether the merchant's confirmation e-mail is sent after every transaction.
MerchantReceiptAddress
The e-mail address to which the merchant’s confirmation e-mails are sent.
CustomerEmailReceipt yes|no
Determines whether the customers receive Netshopperuk's confirmation e-mail. Set to "no" if you wish to send your own e-mail instead.

Username
The username used to login to the NetPayments Client Area.
Password
The password used to login to the NetPayments Client Area.

Required information

When the NetPayments account is created, Netshopperuk will tell you the NSACCESS, Username and Password for your NetPayments account. We will send all this including a working form to you by email. All of the other information (except the TID) is required from either the merchant or the web site developer before testing the NetPayments account can begin.

From the merchant

AcquiringBank
MerchantNumber
SecondaryMerchantNumber (Royal Bank of Scotland merchants only)
SortCode
AccountNumber
Currency

From the web site developer

ResponseURL (only one) Optional.
ApproveURL (only one) Required
RejectURL (only one) Required

MerchantReceiptAddress (whilst in test mode, an e-mail address that the developer has access to - when the account is set to live, altered to an e-mail address that the merchant's specifies)

Communication between your site and NetPayments

For each transaction, you must pass certain pre-defined variables from your web site to NetPayments. They can be passed either as form variables or as a query string in a hyperlink.

Fields passed from your site to NetPayments

Variable	Req?	Example	Description
MTestTransaction	N	Mtestransaction=1	Will process any transaction as a test.
NSACCESS	Y	h3HkhTnE	The NSACCESS value for your NetPayments account
Amount	Y	11.99	The amount to charge the customer, written as POUNDS.PENCE
OrderID	Y	5792AU	A unique value passed from the merchant's site to NetPayments
OrderString	N	Var1=a|Var2=b	A user-defined variable
CustomerName	N	Fred Bloggs	The customer's name
CustomerAddress01	N	103 Acacia Avenue	The first line of their address
CustomerTown	N	Manchester	The customer's town
CustomerCounty	N	Greater Manchester	The customer's county
CustomerPostcode	N	M3 5SG	The customer's postcode
CustomerCountry	N	United Kingdom	The customer's country
CustomerTelephone	N	01234 654987	The customer's telephone
CustomerEmail	N	fred@bloggs.com	The customer's e-mail address

For each transaction, you must pass the fields that are marked as required. Additional fields are available for Schedule accounts.

The OrderString variable

OrderString is a variable you can use to pass your own site-specific information through NetPayments. NetPayments doesn't use the OrderString variable and its use is optional.

One use for the OrderString is to contain a set of variable-value pairs. Your site will then parse the variable-value pairs out of the OrderString in order to work with them.

In the example below, you could use OrderString to pass three variables through NetPayments. Your site could then loop through the comma-delimited list to obtain a series of pipe-delimited lists containing your variable-value pairs.

OrderString = "Variable1|A,Variable2|B,Variable3,C"

The Customer variables

With the Customer fields, if you have already asked the customer for those details on your web site, pass those values to NetPayments. If you don't, NetPayments will ask them for their details again.

Additionally, if you do pass the customer's details but call them something other than the field names above, NetPayments will ask the customer for their details again. It's therefore important that you pass the form fields or query string variables as they are named here (e.g. CustomerName, CustomerAddress01, etc), otherwise customers will be asked for their personal details twice.

Posting to NetPayments

Your web site can send the necessary information to complete the transaction to NetPayments in one of two ways; as form variables or as a query string in a hyperlink. We've provided two examples here to show you how either method could be implemented.

As a form

Below is a sample HTML form used that can be used on your checkout page. It posts to the correct URL of NetPayments.

The NSACCESS values here are dummy values and will not work. You should substitute them with the correct values for your NetPayments account.

The Amount field should pass the amount to be debited from your customer's account. The format should be expressed as POUNDS.PENCE without any extra formatting information (currency signs, commas, etc).

The OrderID is generated by your site and should be unique. It is used to track the success or failure of any transaction processed by NetPayments. After the transaction, NetPayments will pass the results back to a page on your site. One of the values posted will be the OrderID you originally passed to Netshopperuk. This enables you to track the results of individual transactions.

This is one of the reasons why Netshopperuk strongly recommends the use of dynamic, database-driven web sites. If your site cannot store customer order information and generate the correct Amount and unique OrderID values on the

fly, the merchant will be greatly hampered when it comes to reconciling customer orders with the results of individual transactions.

```
<FORM ACTION="https://www.netshopperuk.com/sec/nsauth.cfm"
METHOD="post">

<INPUT TYPE="hidden" NAME="NSACCESS" VALUE="h3HkhTnE">
<INPUT TYPE="hidden" NAME="Amount" VALUE="11.99">
<INPUT TYPE="hidden" NAME="OrderID" VALUE="5792AU">

Customer Name: <INPUT TYPE="text" NAME="CustomerName"><BR>
Address: <INPUT TYPE="text" NAME="CustomerAddress01"><BR>
Line 2: <INPUT TYPE="text" NAME="CustomerAddress02"><BR>
Line 3: <INPUT TYPE="text" NAME="CustomerAddress03"><BR>
Town: <INPUT TYPE="text" NAME="CustomerTown"><BR>
County: <INPUT TYPE="text" NAME="CustomerCounty"><BR>
Postcode: <INPUT TYPE="text" NAME="CustomerPostcode"><BR>
Country: <INPUT TYPE="text" NAME="CustomerCountry"><BR>
Telephone: <INPUT TYPE="text" NAME="CustomerTelephone"><BR>
Email: <INPUT TYPE="text" NAME="CustomerEmail"><BR>

<INPUT TYPE="submit" VALUE="Pay for your goods">

</FORM>
```

In this example, NetPayments will not ask the customer for their contact details as they will be passed as form variables. You wouldn't need to worry about adding those details to your database before posting to NetPayments as they will be sent back to your ResponseURL page along with the results of the transaction.

If you had already asked the customer for their contact details prior to the example form, simply replace the text form fields with hidden form fields, given the same names as above.

As a hyperlink

Hyperlinks request pages on web sites and the HTML to link to other sites is familiar to all developers. In addition to requesting pages, they can also pass information by adding a query string on to the end of the URL. The format is shown below:

```
http://www.somedomain.com/page.asp?Variable1=Value&Variable2=Value
```

The first part of the hyperlink looks the same as normal. However, we have used a question mark to indicate where the resource locator ends and have added two variable-value pairs. The equals sign is used to join the variable to it's value and the ampersand is used to add further variable-value pairs.

If you want send your customers to NetPayments by allowing them to click on a hyperlink instead of submitting a form, use the following example as your guide. Of course, the values in this example need to be substituted with the correct values dynamically on your site. We've used the same values as the HTML form above:

<A HREF="https://www.netshopperuk.com/sec/nsauth.cfm?&NSACCESS=h3HkhTnE&Amount=11.99&OrderID=5792AU&CustomerName=John%20Smith&CustomerAddress01=10%20Barnstable%20Road&CustomerTown=Warwick&CustomerCounty=Warwickshire&CustomerPostcode=CV24%202TS&CustomerCountry=United%20Kingdom&CustomerTelephone=01234%20567890&CustomerEmail=john%40smith%2Eco%2Euk">Pay for your goods</A>

High ASCII values

If you choose to send your customers to NetPayments via a hyperlink, all the values must be in a URL encoded format. URL encoding refers to a data format where all high ASCII and non-alphanumeric characters are encoded using a percent sign followed by the two character hexadecimal representation of the ASCII value. For example, a character with an ASCII value of 129 will be encoded as %81. In addition, spaces can be encoded using the plus sign (+).

If you are using ColdFusion templates on your site, you can use the URLEncodedFormat() function to produce the correct formatting.

ResponseURL

Immediately after a response has been received from the acquiring bank and regardless of the outcome of the transaction (i.e. whether it was authorised or not), a range of form variables will communicate the result to your site. This happens without the customer being aware of it and their browser remains at NetPayments where they see the transaction outcome on-screen.

The page on your site to which the form variables are posted is referred to as the ResponseURL. The code in the ResponseURL page should update your online database with the results of the transaction.

The form variables posted to your ResponseURL page are described below

nsTransID	A unique value generated by NetPayments, used to identify individual transactions.
OrderID	The unique OrderID value your web site originally sent to NetPayments

OrderString	The OrderString value your web site originally sent to NetPayments (only returned if passed)
Amount	The amount that the transaction was for.
nsrAuth	The result of the transaction; 1 if successful, 0 if it was declined.
nsrAuthCode	If successful, the authorisation code issued by the bank
nsrDeclineMsg	If failed, a string containing the reason why

CustomerName	The customer's name
CustomerAddress01	The first line of the customers address
CustomerAddress02	The second line of the customers address
CustomerAddress03	The third line of the customers address
CustomerTown	Their town or city
CustomerCounty	Their county
CustomerPostcode	Their postcode
CustomerCountry	The country
CustomerTelephone	Their contact telephone number
CustomerEmail	Their e-mail address.

For the fields starting "Customer", if your site passed this field to NetPayments, it will return the original value you passed.

If CustomerEmailReceipt is set to "yes" in your NetPayments account, the customer's confirmation e-mail will be sent to the address at CustomerEmail.

IMPORTANT NOTE

The code that updates your database and generates any e-mails you wish to send should be in the ResponseURL page.

Altering the appearance of NetPayments

The merchant’s name will appear at the top of the NetPayments screen, identifying to the customer that they are making a payment to that merchant. Beyond that, it is also possible to customise the appearance of NetPayments so that it appears to be an integrated extension of the merchant’s web site. Please call for details and costs.

Testing NetPayments from your site

1. Login to Netpayments using username and password that has been emailed.

2. Select the plan from the drop down (an account can have any number of payment plans associated to the merchant account. Note: if only one plan is available it will be selected automatically).
3. The plan is inactive by default, go to edit plan and complete the form within the plan with the required information, check the box for “Plan Live “ and update.
4. The form that has been sent in the setup email and contains **Mtestransaction = 1**. This ensures that all transactions are test only, and the test card numbers should be used for the period of testing.
5. When testing is complete the **Mtestransaction** field should be removed from the form. The system will now process live transactions.

When a NetPayments account is created, it is set to test data. Whilst in test data mode, any credit card numbers entered will not be charged, even if NetPayments reports that the transaction was successful.

Use the test card number script that has been emailed to you.

Your NetPayments account and plan(s) is set to inactive by default. When your account is set to live, the test credit card numbers will cease to result in a successful transaction.

If you wish to test whilst your NetPayments account is in live mode, use a valid credit card number, purchase a low value product on your site (such as £1.00) and when the transaction has been authorised by NetPayments, refund the same amount back to the card. The merchant will still be charged the normal rates of commission by your bank and Netshopperuk for that transaction.

Frequently Asked Questions

Can I change the appearance of the NetPayments pages?

Yes. You will need to contact us for this, there will be a small charge for this customisation service.

What browsers have you tested NetPayments with?

We have successfully tested and used NetPayments with the following browsers:

Internet Explorer 6 (PC)
Internet Explorer 5.* (PC)
Netscape Navigator 4.7 (PC)

Internet Explorer 5.0 (Mac)
Netscape Navigator 4.76 (Mac)

The following browsers were also able to successfully use NetPayments. However, as these older browsers could only support a lower level of encryption than Netshopperuk's 128-bit certificate, they could not establish that the certificate was current and displayed a warning suggesting that the certificate might be out of date.

Internet Explorer 4.0 (PC)
Netscape Navigator 3.04 (PC)

Netscape Navigator 4.7 on a Mac only supports 56-bit encryption and repeatedly crashed with a Type 1 error when trying to access NetPayments. Upgrading the browser to 4.76 (128-bit) solved the problem.

Do I need to tell you the URLs for the ResponseURL, ApproveURL and RejectURL pages before I test the site or should I specify it as a hidden value in the initial form?

You need to setup all these values in the Client Area prior to testing your NetPayments account.
Some payment service providers require the site developer to pass many values as hidden form fields. NetPayments differs by asking you for those values before you can use the account.

If the ResponseURL page called is on my site, how does the customer's browser remain at NetPayments?

We use a ColdFusion tag called CFHTTP which allows form variables to be posted to a page. That happens in the background just after the response has been received from the bank and at the same time as the customer sees the results of the transaction on-screen.

Your ResponseURL page then just has to listen for and process the form variables posted to it. Typically this will trigger a SQL statement that updates the status of that transaction in your online database.

Your ResponseURL page shouldn't contain any HTML tags. Its function is to process the transaction information sent to it.

Our site is frames-based. Is it possible to load NetPayments into a frame so our site appears consistent?

No. NetPayments breaks out of any frames that contain it to ensure that

- the full URL including https:// is visible in the browser's address bar and
- that the padlock symbol is displayed in the browser's status bar.

This is an attempt to encourage customer confidence by making them aware that they are submitting their credit card details within a secure environment.

It also prevents some browsers from displaying a message that the page contains both secure and insecure items.

How does the merchant find out what goods and services the customer has ordered?

The merchant needs the ability to view the order information stored in the online database by his own web site.

The merchant can log in to the NetPayments Client Area and view NetPayments transactions. However, as NetPayments does not track or record specific order information (i.e. the goods and services required), if the developer does not provide a similar facility for the merchant's web site, the merchant will be able to receive payments but will not know what to supply their customers.

Can't I just get the web site to e-mail the merchant the order?

If you wish, you can send the merchant an e-mail containing the order information, rather than store the information in a database and provide a facility for the merchant to log in.

However, should the e-mail service on your site fail for whatever reason, or the ResponseURL not be sent due to network or server conditions, the merchant may find that they have received money for an order without any way of knowing what to supply to the customer.

That is why Netshopperuk strongly recommends that the merchant's site have

- an online database, used to store customer and order information
- a facility for the merchant to login and view all customer orders

NetPayments is not designed to store customer order information and the merchant's site should be designed with that in mind.

What is the nsTransID value used for?

The nsTransID value (also referred to as the TransactionID) is used internally by NetPayments as a primary key for transactions.

But if the OrderID value I send to you is unique, why can't you just use that?

Whilst the OrderID value will be unique amongst a merchant's set of records, with many web sites posting to NetPayments, there is no guarantee that every OrderID value passed will be unique amongst all the records held at NetPayments.

For example, if developers decides to use an incremental number as their OrderID, within all the NetPayments transaction records there may be many OrderIDs with a value of "23", for example.

Therefore, NetPayments additionally assigns it's own unique nsTransID value to each transaction to further help identification. Whilst the OrderID value you send to NetPayments will be unique within your set of records, the merchant may also find it helpful if you additionally store the nsTransID value for each transaction.

Are there any user-defined variables that can be passed to NetPayments and then returned to the merchant's site?

Yes. You can optionally send a variable called OrderString to NetPayments. OrderString will be returned to your ApproveURL or RejectURL and ResponseURL pages.

One possibly use for OrderString is to contain a set of variable-value pairs. Your site will then parse the variable-value pairs out of the OrderString in order to work with them.

In the example below, you could use OrderString to pass three variables through NetPayments. Your site could then loop through the comma-delimited list to obtain a series of pipe-delimited lists containing your variable-value pairs.

OrderString = "Variable1|A,Variable2|B,Variable3,C"

If a transaction was successful, what should I do with the nsrAuth value?

The nsrAuth value will be set to 1 if the transaction was successful and 0 if it failed. Your ResponseURL page should update the status of the customer’s order based on the value of nsrAuth, using the OrderID to identify which record to update.

And what should I do with the nsrAuthCode and nsrDeclineMsg values?

Your site doesn't need to record or do anything with nsrAuthCode or nsrDeclineMsg values.

When a card has been charged, the money doesn't get transferred instantly. If the funds are available, the bank simply reserves the Amount requested and issues an AuthCode back to the Payment Service Provider (Netshopperuk).

NetPayments then communicates with the bank at the end of that day and returns the AuthCode value along with the request to transfer the reserved funds. If the AuthCode value is valid, the transfer occurs.

Do I have to use an online database to record the products and orders?

Not necessarily, but it's definitely the best way of storing this information.

You could rely on e-mails being sent to transmit this information, but e-mail services aren't robust. If the SMTP service fails, how will the merchant know what they ordered now the customer has paid for the goods?

Does it matter what online database format I use?

No. NetPayments doesn’t communicate directly with your database so you can use any database format you choose and your ISP supports.

NetPayments posts variables to the ResponseURL page on your site. It is up to you to enable the ResponseURL page to communicate successfully with your database.

Your ResponseURL page should not contain any HTML or text to be displayed.

What help can I expect Netshopperuk to give me when building the site and with database design?

Netshopperuk will be delighted to help you with any questions you may have that relate directly to the integration of your site with NetPayments.

However, Netshopperuk cannot give you advice nor help on how your site should function, what server-side scripting language to choose, how your online database should be structured (the schema) nor any other web site development matter not directly related to its integration with NetPayments.

The merchant has more than one web site and so need to have two ResponseURLs, ApproveURLs and RejectURLs. How can this be done?

By having one NetPayments account for each site.

There can only be one ResponseURL, ApproveURL and RejectURL. If you have more than one web site, we can set up a NetPayments account for each one.

If a customer has his credit card rejected, is he redirected to the RejectURL or will he have an opportunity to try again with a different card before leaving your site?

They will be able to click on a link in NetPayments that says, "Click here to try again". Then they can retype their card number and expiry, in case the original number was mistyped.

There is also another link on the page (regardless of the outcome) that says, "Click here to return to the merchant's site". Depending on whether the transaction was successful or failed, that will send them back to your ApproveURL or RejectURL.

Can I use the BT Trustwise or Verisign logos on my site to convey to customers that they are going to pay in a secure environment?

Yes. As Netshopperuk's security certificate is registered with BT and Verisign, you can display their logos on your site.

Your can find their logos on the sites at
http://www.trustwise.com/
http://www.bt.com/

Do I need to have, or have access to, a secure server in order to use NetPayments?

No. NetPayments, where the customer enters their credit card details, is hosted on a secure server at Netshopperuk. That means they only ever enter their credit card information over an SSL session.

When you see the padlock symbol displayed in your browser (usually in the status bar at the bottom) and a URL in the Address bar that starts https:// instead of the usual http:// that indicates that your browser is communicating with the web server via a Secure Sockets Layer (SSL).

SSL provides a security handshake that is used to initiate the TCP/IP connection. This handshake results in the client and server agreeing on the level of security they will use and fulfil any authentication requirements for the connection.

SSL is also used to encrypt all the information in both the HTTP request and HTTP response, including the URL the client is requesting, any submitted form contents (such as credit card numbers), any HTTP access authorisation information (user names and passwords), and all the data returned from the server to the client.

What happens if the customer is going to be billed in another currency because the merchant account is set to take payments in, for example, US Dollars? How should I format the Amount field?

The format of the Amount field should always be the same, regardless of the currency that the merchant account is set to. If you pass 29.99 and the merchant and NetPayments accounts are set to Pounds Sterling, the cardholder will be billed GBP£29.99. If the merchant account and NetPayments accounts are set to US Dollars and you pass 29.99, they will be billed US$29.99.

The currency information is determined by the merchant and their acquiring bank. Your NetPayments account should also then be set to the same currency. The customer will then be billed in the currency the merchant has requested.

Simply adding formatting to the Amount field will not alter the currency that the customer is billed in and will return an error at NetPayments.

When should the account be set to live?

When you are happy that everything is working correctly and the merchant has given confirmation that he is ready to start trading.

Troubleshooting

The site is posting to NetPayments and I'm seeing a message saying "Invalid Amount". What could be happening?

The web site will display that message if you are posting to NetPayments an incorrectly formatted amount. The format, regardless of the currency, should always be in form POUNDS.PENCE, assuming in this instance that the currency for this merchant and NetPayments accounts is Pounds Sterling.

View the source code of the page that posts to NetPayments. If, for example, you are adding VAT on your site, make sure you don't have any rounding errors creeping in. If you post the value 12.942 to NetPayments, the transaction will fail and nsrDeclineMsg will be set to "Invalid Amount".

When the customer returns to my site, the URL contains all the variables posted to the ResponseURL page. How can I avoid this?

Redirect the user to another page on your site.

Getting help

If you are having problems, please contact Netshopperuk and ask for NetPayments technical support

Freefone 0800 096 2498
E-mail support@netshopperuk.co.uk

Please remember to quote the Merchant Name in all communications.

Linking to Netshopperuk

Please include a link to Netshopperuk on both your home page and **all** pages that post directly to NetPayments . The instructions for providing the link are detailed on the page at

http://www.netshopperuk.co.uk/merchantimages.htm

Glossary

ApproveURL and RejectURL

After a transaction, the customer will see a link on NetPayments saying "Click here to return to the merchant's site". If the transaction was successful, clicking on the link will take them to the ApproveURL (a URL you specify). If it was declined, clicking on the link will take them to the RejectURL page (again, a URL you specify).

NSID and NSACCESS

Each NetPayments account has an NSACCESS value, associated with it. They enable NetPayments to identify which site the customer has come from and are used to determine the ResponseURL, ApproveURL and RejectURLs to use and which bank account to credit after a successful transaction.

ResponseURL

After a NetPayments transaction has occurred, we will post a set of form variables containing the result of the transaction to your site. The ResponseURL is the page on your site to which NetPayments post those values.

Secure Sockets Layer (SSL)

It is possible to intercept information passed between a browser and a server with an application called a "packet sniffer". The Secure Sockets Layer encrypts the data sent from a browser to the server and the server's subsequent response. Therefore, if a credit card number is sent to a server using an SSL session and is intercepted by a packet sniffer, the number will be unintelligible.