

WorldNet TPS

Merchant Integration Guide

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1 Introduction

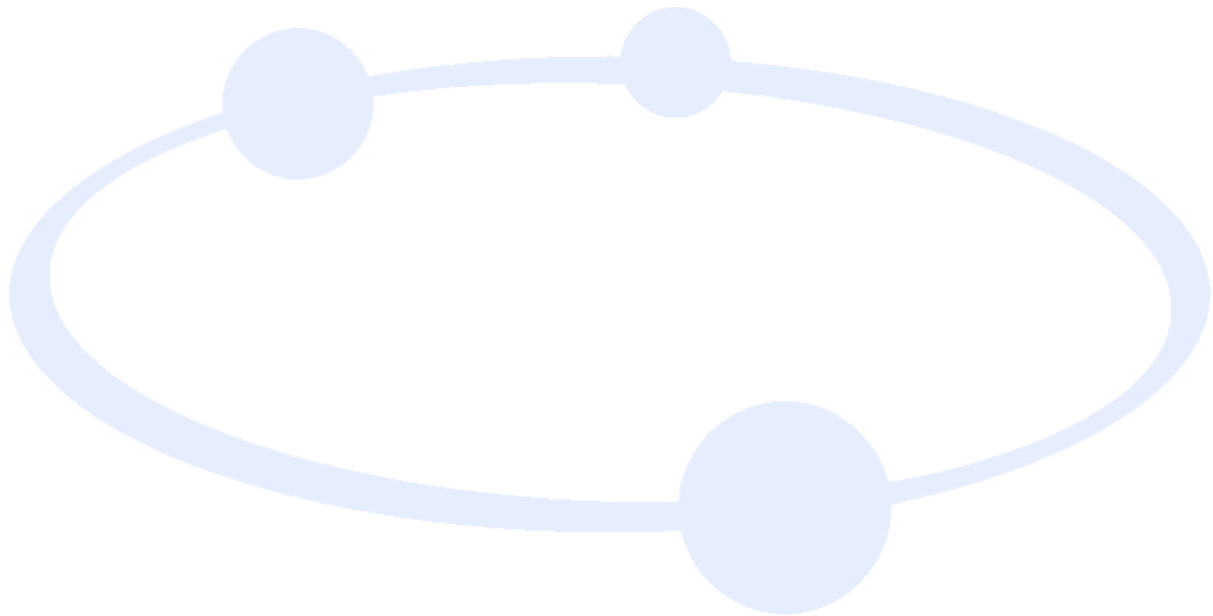
The WorldNet TPS system is a secure server-based transaction processing service that will enable your business to authorise and process credit/debit card transactions online in real-time. The information needed to process the transactions is sent over a secure, encrypted internet connection.

Once the customer has completed the payment or pre-auth form, the WorldNet TPS server connects with your acquiring bank for payment authorisation and if the sale is authorised, returns a receipt to the customer. WorldNet TPS settles the transactions automatically and the acquiring bank deposits the funds into your bank account. WorldNet TPS automatically archives sales that are finalized so that you can refer to them at a later date, if necessary.

This guide provides instructions on how to integrate a website or application into the system and hence take automatic credit card payments, it doesn't cover details related to the Selfcare System UI, please refer to the Selfcare User Guide for the details related to the dashboard, payment page layout, terminal setup, notification alerts, open and closed batch, Virtual Terminal, MIS reporting, etc. The SelfCare System User Guide can be obtained by sending a request to support@worldnettps.com.

2 Choosing you integration method

There are three integration methods available, Hosted Payment Page, POST integration and XML integration. You can use one or a combination of them as required, but you should consider the integration method carefully before starting any development planning. Please see our [Guide to choosing an Integration Method](#) before continuing.



3 Notes before continuing

3.1 HASH parameters

Every request to and response from WorldNet TPS includes an MD5 HASH parameter. This is a security feature to ensure that none of the sensitive data in the request has been modified. This is achieved by including all the sensitive fields in a string (these vary per request type) along with the shared secret (configured per terminal). This string is then used as the basis of an MD5 hash.

In this document, when an MD5 input string is listed such as:

TERMINALID+ORDERID+AMOUNT+DATETIME+secret

you should not unclude the "+" symbols in the calculation. For the example in the first section below if the shared secret was "x4n35c32RT" then the MD5 hash would be calculated as:

md5("6491002328110.0015-3-2006:10:43:01:673x4n35c32RT")

and would equal to: dd77fde79d1039d6b39e20d748211530

3.2 Card Types

The card types that your account supports are determined by your acquiring bank. The options are: VISA, VISA DEBIT, ELECTRON, MASTERCARD, DEBIT MASTERCARD, MAESTRO, UK MAESTRO, SOLO, LASER, AMEX, DINERS, JCB, DISCOVER, UKASH NEO. These can be configured in the Terminal Setup section of the SelfCare System and should ALWAYS be maintained to be exactly what your acquirer has set your merchant account up with. All live accounts will be set up with the correct card types enabled.

For testing we recommend using the test card numbers in our [Testing Guide](#) document.

4 Payment Page and Pre-Auth Page Integration

4.1 Hosted Payment Page

The Hosted Payment page (fig. 1) is built to allow merchants to easily integrate with the WorldNet TPS system for processing one off payments.

The payment Page header and footer can be configured from the merchant Selfcare system, please check Selfcare User Guide for details. There are demonstrations of Hosted Payment Page customisations on our website. It is also possible to process transactions using an iFrame rather than a full redirect. Please contact WorldNet TPS Support for further details.

Using this system, the cardholders are redirected to the WorldNet TPS payment page once they have made the decision to buy. All payment details are collected by WorldNet TPS to be sent to the bank server once the submit button is pressed. The payment is then processed by WorldNet TPS and the cardholder is redirected to the merchants receipt page. WorldNet TPS also handle 3D Secure and eDCC offerings if they are appropriate.

The above is accomplished by means of a simple HTML form post with a number of defined form fields (below). The following is the WorldNet TPS test payment page URL:

<https://testpayments.worldnettps.com/merchant/paymentpage>

The live URL will be provided once merchant testing is complete.

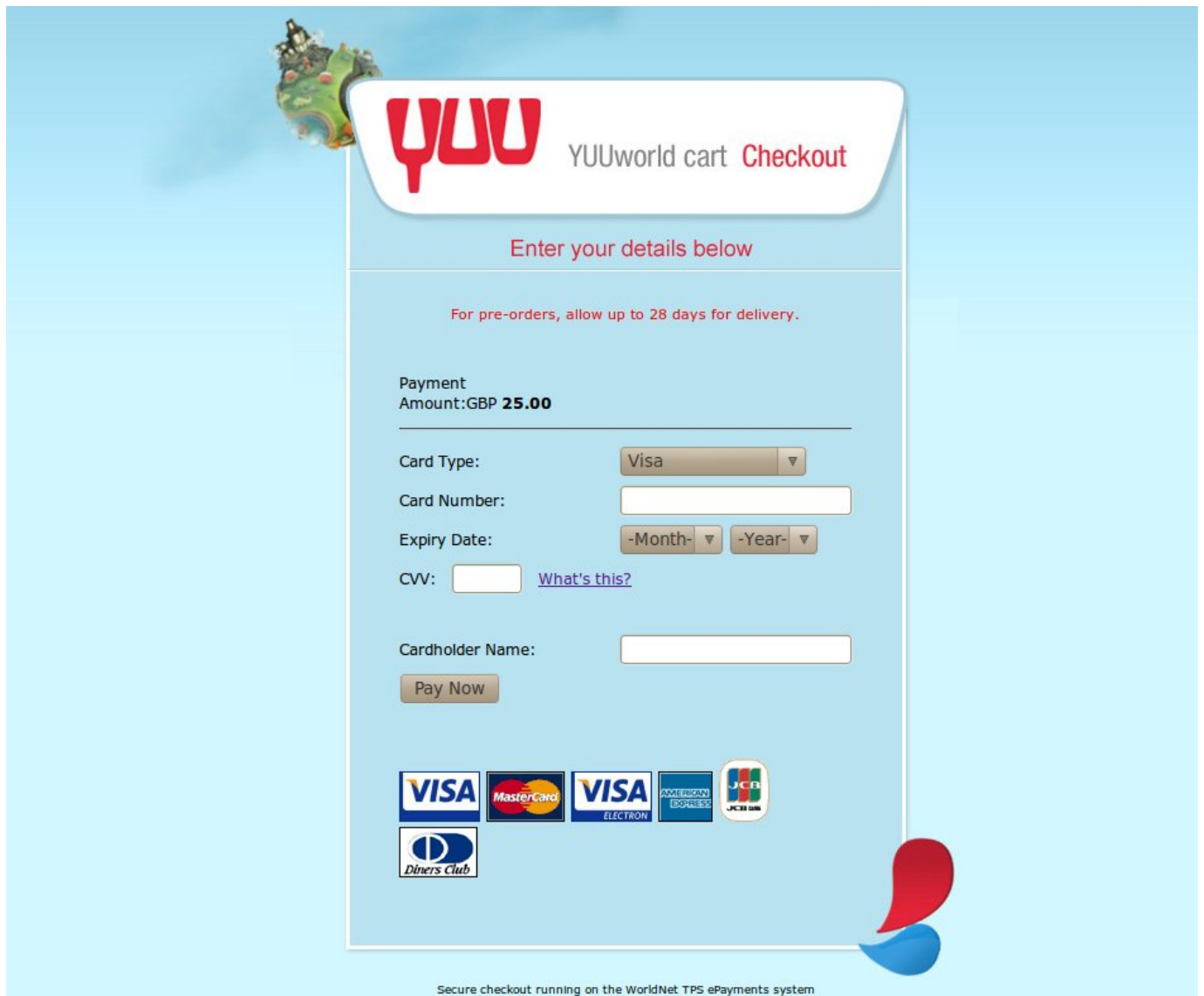


Figure 1: Hosted Payment Page

The following table describes the form fields to be posted:

Field Name	Required	Description
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
ORDERID	Y	A unique identifier for the order created by the merchant. (Max 12 Characters)
CURRENCY	Y	A 3 character currency code of the transaction.
AMOUNT	Y	The amount of the transaction as a 2 digit decimal or an Integer value for JPY amounts.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.
AUTOREADY	N	Y or N. Automatically set the transaction to Ready in the batch. If not present the terminal default will be used.
DESCRIPTION	N	A description of the transaction.
EMAIL	N	An email address to send a confirmation

		email to. Normally this is cardholder email address.
RECEIPTPAGEURL	N	This is the URL of the page on your site that will display the result of the transaction. If sent this will override the terminal setting in the SelfCare System.
VALIDATIONURL	N	This will overwrite the default Background Validation URL and will display an error if this feature is not enabled and sent.
ADDRESS1	N	Will pre-populate the ADDRESS1 field on the Hosted Payment Page if there is also a valid POSTCODE sent and AVS is enabled for the terminal. Handling of display is managed by the WorldNet and can be to display read only, display editable or to hide them on form.
ADDRESS2	N	The same handling as ADDRESS1.
POSTCODE	N	If sent then AVS data will be populated.
COUNTRY	N	ISO 3166-1-alpha-2 code. List here .
PHONE	N	Customer phone number, to be stored against transaction. International format and numeric.
CUSTOMFIELD1	N	The merchant can configure any number of custom fields which will be added to the transaction and returned to the receipt page. (See Note 2 below)
CUSTOMFIELDN	N	

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RECEIPTPAGEURL+VALIDATIONURL+secret
 If the RECEIPTPAGEURL or VALIDATIONURL parameters are not being sent, they should not be included in the hash. n.b. In very specific occasions you may also need to include the CURRENCY in the hash, but only if specifically instructed to do so by WorldNet. If so it should be included after ORDERID and before AMOUNT.
2. Any non-standard field will be considered as Custom Field, the name does not have to start with 'CUSTOMFIELD'. Custom Fields are those that are set up in Terminal Setup. They will be included in posts to the Background Validation URL and may be prompted for on the payment page if not sent.
3. Any other fields that are sent to the HPP are considered to be 'extra fields'. These will be returned in the response to the Receipt Page, but will not be stored or sent

to the Background Validation URL.

The following HTML shows the minimum required to initiate a transaction.

```
<html>
  <body>
    <form action="https://testpayments.worldnettps.com/merchant/paymentpage" method="post">
      <input type="hidden" name="TERMINALID" value="6491002" />
      <input type="hidden" name="ORDERID" value="3281" />
      <input type="hidden" name="CURRENCY" value="EUR" />
      <input type="hidden" name="AMOUNT" value="10.00" />
      <input type="hidden" name="DATETIME" value="15-3-2006:10:43:01:673" />
      <input type="hidden" name="HASH" value="dd77fde79d1039d6b39e20d748211530" />
      <input type="submit" value="Pay Now" />
    </form>
  </body>
</html>
```

The URL where WorldNet TPS will send transaction processing results is set on the Terminal Setup screen (Receipt Page URL field). The following fields are returned in the response:

Field Name	Description
TERMINALID	The Terminal ID that the transaction was performed under
ORDERID	The original order ID of the transaction
AMOUNT	The value of the transaction
RESPONSETEXT	The text of the authorization
RESPONSECODE	A or D or R (Approved or Declined or Referral)
APPROVALCODE	Six digit AuthCode
DATETIME	The time of the transaction created by the bank. Format: YYYY-MM-DDTHH:MM:SS
AVSRESPONSE	The result of the AVS check (if AVS enabled)
CVVRESPONSE	The result of the CVV check (if CVV enabled)
UNIQUEREF	Generated reference that should be stored for tracking
EMAIL	If sent we will return this value
PHONE	If sent we will return this value
HASH	An MD5 hash. See Note1 below.
CUSTOMFIELD1-N	Any other fields sent in the request.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT
 +secret

Many code examples on how to generate an MD5 hash can be found in the Internet. For assistance, please contact WorldNet TPS.

4.2 Hosted Pre-Auth Page

Hosted Pre-Auth page enables pre-authorisation requests for merchant needs such requests are supported by pre-auth terminals only. Approved pre-auth transactions must be completed using Selfcare system before they will be settled. Final transaction amount can be adjusted on completion.

Hosted Pre-Auth Page looks for buyer exactly as [Hosted Payment Page](#), it has the same set of fields as Payment Page has, just different URL should be used:

<https://testpayments.worldnettps.com/merchant/preauthpage>

4.3 Background Validation

Background validation is a method of double checking the result of transactions using a server-side post. It is especially useful for Payment Page transactions as the result of the transaction, i.e. The response redirect, can sometimes fail, leaving the site without a result for the transaction, even though the transaction may have been authorised.

It is possible to enable background transaction validation on a terminal level. If this feature is enabled then all transactions sent through the Hosted Page or Direct Integration will be validated.

The Validation URL should be set for the terminal or sent in the payment request to the Payment Page, and WorldNet TPS will use this URL to send a HTTP POST request with transaction processing result and will expect to receive "OK" in the HTTP response body (2 characters only). Any other response or connection issue will be considered as not-validated and a subsequent attempt to reach the validation URL will be made later, this process will repeat until our maximum allowed time for validation has passed. If the maximum allowed time has pass and transaction was not successfully validated, the transaction will be marked as expired. Background Validation can be enabled through the SelfCare System in the Terminal Setup section.

The following parameters are sent in the validation request:

Field Name	Required	Description
TERMINALID	Y	Terminal Id
ORDERID	Y	Order ID supplied by merchant in request.
RESPONSECODE	Y	A, D or R (Approved, Declined or Referral)
RESPONSETEXT	Y	Text describing transaction state. This will be populated with an error message if there was an issue during processing.
APPROVALCODE	N	Transaction approval code if transaction was authorised otherwise empty
EMAIL	N	Cardholder e-mail
DATETIME	Y	Format: YYYY-MM-DDTHH:MM:SS
AVSRESPONSE	N	AVS response, available only when AVS is enabled for the terminal
CVVRESPONSE	N	CVV response, available only when CVV is enabled for the terminal
HASH	Y	An MD5 hash. See Note 1 below.
Custom Parameters	N	Configured Terminal Custom Parameters

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT
 +secret

5 XML Payments Integration

It is also possible to send XML directly to the WorldNet TPS payment server. This is useful in a scenario where your application needs full control of the payment process or where you wish to collect card details on your site.

The XML XSD description for all of the packet types below is available there:

<https://testpayments.worldnettps.com/merchant/worldnettpspayment.xsd>

5.1 Request Types

5.1.1 XML Payments

The following is a simple example of a payment via an XML POST:

```
<?xml version="1.0" encoding="UTF8"?>
<PAYMENT>
  <ORDERID>115010922465</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>10</AMOUNT>
  <DATETIME>12-06-2006:11:47:04:656</DATETIME>
  <CARDNUMBER>4111111111111111</CARDNUMBER>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDEXPIRY>0807</CARDEXPIRY>
  <CARDHOLDERNAME>Joe Bloggs</CARDHOLDERNAME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
  <CURRENCY>EUR</CURRENCY>
  <TERMINALTYPER>1</TERMINALTYPER>
  <TRANSACTIONTYPE>7</TRANSACTIONTYPE>
  <CVV>214</CVV>
</PAYMENT>
```

For testing, this XML is posted to:

<https://testpayments.worldnettps.com/merchant/xmlpayment>

A response for this transaction would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<PAYMENTRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>APPROVAL</RESPONSETEXT>
  <APPROVALCODE>475318</APPROVALCODE>
  <DATETIME>2005-11-14T12:53:18</DATETIME>
  <CVVRESPONSE>M</CVVRESPONSE>
  <HASH>afe4c8b57f3ea0df7c8f75fae7e90d</HASH>
</PAYMENTRESPONSE>
```

The WorldNet TPS payment system then handles subsequent transaction settlement and storage.

Payment request fields description:

Field Name	Required	Description
ORDERID	Y	A unique identifier for the order created by the merchant. (Max 12 Characters)
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
AMOUNT	Y	The amount of the transaction as a 2 digit decimal or an Integer value for JPY amounts.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
TRACKDATA	N	Track 2 data should be present for a swiped card holder present transaction.
CARDNUMBER	N	The payment card number, required if TRACKDATA is not being sent.
CARDTYPE	Y	See section 3.2 above.
CARDEXPIRY	N	4 digit expiry field (MMYY), required if TRACKDATA is not being sent.
CARDHOLDERNAME	Y	The name of the card holder
HASH	Y	An MD5 hash. See Note 1 below.
CURRENCY	Y	A 3 character currency code of the transaction.
FOREIGNCURRENCY INFORMATION	N	Tag contains Dynamic Currency Conversion information. It has to be present in the eDCC enabled transactions. See XML Payments with eDCC
TERMINALTYPE	Y	The type of the terminal: 1 = MOTO (Mail Order/Telephone Order) 2 = Internet
TRANSACTIONTYPE	Y	The transaction type: 0 = not applicable 1 = Single transaction 2 = Recurring transaction 3 = Installment payment 4 = Unknown classification 5 = Fully authenticated transaction 3D Secure transaction 6 = The merchant attempted to authenticate the cardholder, but the cardholder cannot or does not participate in 3D-Secure. 7 = Transaction when payment data was transmitted using SSL encryption, or Channel Encrypted 8 = Transaction in the clear, or Non Secure
AUTOREADY	N	Y or N. Automatically set the transaction to Ready in the batch. If not present the terminal default will be used.

EMAIL	N	Cardholder e-mail address
CVV	N	The security code entered by the card holder
ISSUENO	N	The issue no. of the card (Solo)
ADDRESS1	N	The first address field for AVS
ADDRESS2	N	The second address field for AVS
POSTCODE	N	The postcode for AVS
AVSONLY	N	Y or N – If this is set to Y no transaction will be processed and an address verification check will be performed against card details.
DESCRIPTION	N	A description of the transaction.
MOBILENUMBER	N	Used for SMS receipts. International format, numeric only.
PHONE	N	Card Holder Phone Number stored against transaction. International format, numeric only.
COUNTRY	N	ISO 3166-1-alpha-2 code. List here .
XID	N	The XID for a 3D Secure transaction
CAVV	N	The CAVV for a 3D Secure transaction
MPIREF	N	3D-Secure Worldnet Transaction Reference supplied in WorldNet TPS MPI transactions.
DEVICEID	N	The unique identifier string for a connecting device. Mandatory for non-server based devices such as handheld devices/cash registers etc.

The following fields are returned in the response:

Field Name	Description
RESPONSECODE	A or D or R (Approved or Declined or Referral)
RESPONSETEXT	The text of the authorization
APPROVALCODE	Six digit AuthCode
AUTHORIZEDAMOUNT	Only sent for specific acquirers. Partial amount authorised for some transactions
DATETIME	The time of the transaction created by the bank. Format: YYYY-MM-DDTHH:MM:SS
AVSRESPONSE	The result of the AVS check
CVVRESPONSE	The result of the CVV check
HASH	An MD5 hash. See Note2 below.

Notes:

1. The MD5 hash is generated using the following as an input string:

TERMINALID+ORDERID+AMOUNT+DATETIME+secret

2. The MD5 hash is generated using the following as an input string:

TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT

+secret

3. The DATETIME is the time returned by the bank for the transaction.

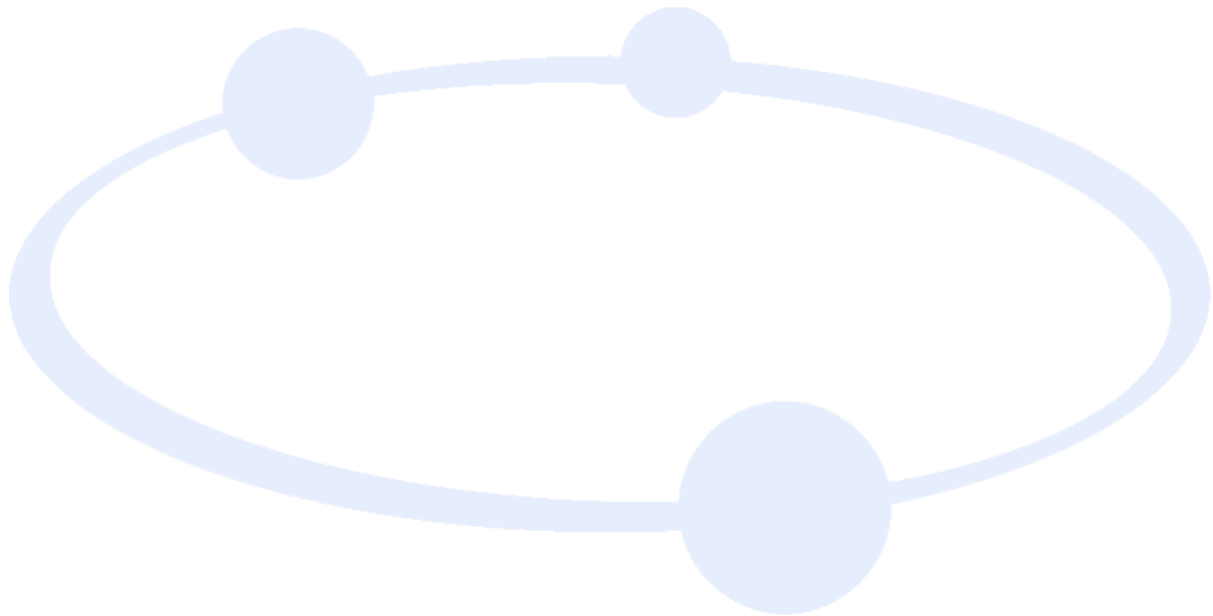
Many code examples on how to generate an MD5 hash can be found in the Internet. For assistance, please contact WorldNet TPS.

Error handling

If there is an error processing the transaction, the error string is returned in an XML message with the simple:

```
<ERROR><ERRORSTRING></ERRORSTRING></ERROR>
```

tags.



5.1.2 Pre-Authorisation Request

Pre-authorisation transactions are supported by the acquirer Elavon only. 3D Secure pre-auth transactions are not supported due to scheme restrictions.

Example of a XML Pre-Auth request:

```
<?xml version="1.0" encoding="UTF8"?>
<PREAUTH>
  <ORDERID>100028374319</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>15.62</AMOUNT>
  <DATETIME>18-12-2008:09:24:16:105</DATETIME>
  <CARDNUMBER>4111111111111111</CARDNUMBER>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDEXPIRY>1109</CARDEXPIRY>
  <CARDHOLDERNAME>Joe Bloggs</CARDHOLDERNAME>
  <HASH>9c58e8d7ff9eb98db4ece2af75dec6ae</HASH>
  <CURRENCY>EUR</CURRENCY>
  <TERMINALTYPE>1</TERMINALTYPE>
  <TRANSACTIONTYPE>7</TRANSACTIONTYPE>
  <CVV>214</CVV>
</PREAUTH>
```

Pre-Auth request can have the same fields as XML **PAYMENT** except for **AUTOREADY, XID, CAVV and MPIREF fields**. Please note that Pre-Auths do not support 3D secure tr CARDCURRENCYRATERESPONSE ansactions.

For testing, this XML is posted to:

<https://testpayments.worldnettps.com/merchant/xmlpayment>

A response for this transaction would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<PREAUTHRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>APPROVAL</RESPONSETEXT>
  <APPROVALCODE>475318</APPROVALCODE>
  <DATETIME>2008-12-18T09:24:17</DATETIME>
  <CVVRESPONSE>M</CVVRESPONSE>
  <HASH>afe4c8b57f3ea0dfef7c8f75fae7e90d</HASH>
</PREAUTHRESPONSE>
```

PREAUTHRESPONSE and PAYMENTRESPONSE have mostly the same fields set except 3D Secure fields (CAVV, XID, MPIREF), AVSONLY and AUTOREADY. Please refer to the PAYMENTRESPONSE section for details.

Errors handling

If there is an error processing the transaction, the error string is returned in an XML message with the simple:

```
<ERROR><ERRORSTRING></ERRORSTRING></ERROR>
```

tags.

5.1.3 Pre-Auth Completion Request

Example of a Pre-Auth completion request:

```
<?xml version="1.0" encoding="UTF-8"?>
<PREAUTHCOMPLETION>
  <ORDERID>100028374123</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>12.31</AMOUNT>
  <DATETIME>19-12-2008:14:47:51:307</DATETIME>
  <CVV>785</CVV>
  <HASH>ff2e84856d7debbf07d3dfeffad5898c</HASH>
</PREAUTHCOMPLETION>
```

For testing, this XML is posted to:

<https://testpayments.worldnettps.com/merchant/xmlpayment>

A response for this transaction would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<PREAUTHCOMPLETIONRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>APPROVAL</RESPONSETEXT>
  <APPROVALCODE>515658</APPROVALCODE>
  <DATETIME>2008-12-18T14:47:51</DATETIME>
  <HASH>93527dbb00534a4b33546161aefe5222</HASH>
</PREAUTHCOMPLETIONRESPONSE>
```

Pre-Auth Completion request fields description:

Field Name	Required	Description
ORDERID	Y	A unique identifier for the order created by the merchant. (Max 12 Characters)
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
AMOUNT	Y	The amount of the transaction as a 2 digit decimal or an integer value for JPY amounts.
FOREIGNCURRENCY INFORMATION	N	Tag contains Dynamic Currency Conversion information. It is required when completing out of the 15% margin eDCC transaction. See XML Payments with eDCC
DESCRIPTION	N	An optional description, overrides original pre-auth description if available.
DATETIME	Y	Format DD-MM-YYYY:HH:MM:SS:SSS
CVV	N	The security code entered by the card holder. It should be available when CVV is enabled for a terminal and completing out of the 15% margin transaction.
HASH	Y	An MD5 hash (See Note 1 below)

The following fields are returned in the response:

Field Name	Description
RESPONSECODE	A or D or R(Approved or Declined or Referral)
RESPONSETEXT	The text of the authorization
APPROVALCODE	Six digit AuthCode
DATETIME	The time of the transaction created by the bank. Format: YYYY-MM-DDTHH:MM:SS
AVSRESPONSE	The result of the AVS check
CVVRESPONSE	The result of the CVV check
HASH	An MD5 hash. See Note2 below.

Notes:

- 1) The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+secret
- 2) The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT
 +secret

Errors handling

If there is an error processing the transaction, the error string is returned in an XML message with the simple:

```
<ERROR><ERRORSTRING></ERRORSTRING></ERROR>
```

tags.

5.1.4 Refunds

The following is a simple example of a refund via an XML POST:

```
<?xml version="1.0" encoding="UTF-8"?>
<REFUND>
  <ORDERID>115073356875</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>10</AMOUNT>
  <DATETIME>20-06-2006:12:28:02:171</DATETIME>
  <HASH>cfa094f53a508d2031c7895f9f766cbb</HASH>
  <OPERATOR>Test Operator</OPERATOR>
  <REASON>Faulty Goods</REASON>
</REFUND>
```

For testing, this XML is posted to:

<https://testpayments.worldnettps.com/merchant/xmlpayment>

A response for this transaction would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<REFUNDRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>SUCCESS</RESPONSETEXT>
  <ORDERID>115073356875</ORDERID>
  <TERMINALID>1001</TERMINALID>
  <AMOUNT>10</AMOUNT>
  <DATETIME>20-06-2006:12:28:03:875</DATETIME>
  <HASH>6a06aa6f14fe539f4dedd305465811ab</HASH>
</REFUNDRESPONSE>
```

The WorldNet TPS payment system then handles subsequent transaction settlement and storage.

The following is a description of each field:

Field Name	Required	Description
ORDERID	Y	The original order ID of the transaction.
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
AMOUNT	Y	The amount of the transaction as a 2 digits decimal or an Integer value for JPY amounts.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.
OPERATOR	Y	An identifier for who executed this transaction
REASON	Y	The reason for the refund

The following fields are returned in the response:

Field Name	Description
RESPONSECODE	A or D (Approved or Declined)
RESPONSETEXT	The text of the authorization
ORDERID	A unique identifier for the order created by the merchant.
TERMINALID	A Terminal ID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
AMOUNT	The amount of the transaction as a 2 digit decimal or an integer value for JPY amounts.
DATETIME	Format DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See note 2 below.

Notes:

- 1) The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+secret
- 2) The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT
 +secret

5.1.5 XML Requests with eDCC

Direct XML transactions (Payment, Pre-Auth and Pre-Auth Completion) can be DCC (Dynamic Currency Conversion) enabled. This is useful when card and terminal currencies are different. WorldNet TPS support Currency Conversion Rate request, merchant application can request Conversion Rate for the card, then cardholder have to decide if he/she would like to use eDCC service, and after this appropriate request to the TPS will be sent. eDCC enabled XML transaction request should include additional tag - 'FOREIGNCURRENCYINFORMATION' with all required nested tags.

DCC transactions are allowed for the eDCC-enabled terminals only. DCC support for the terminal can be enabled or disabled by the WorldNet TPS support team only.

5.1.5.1 eDCC Exchange Rate request

The following is an example of a Conversion Rate request for the Terminal ID and BIN:

```
<?xml version="1.0" encoding="UTF-8"?>
<GETCARDCURRENCYRATE>
  <TERMINALID>1001</TERMINALID>
  <CARDBIN>411111</CARDBIN>
  <DATETIME>27-06-2007:16:50:02:123</DATETIME>
  <HASH>15f6c0f0b51faff9cbb77220ab8ddfce</HASH>
</GETCARDCURRENCYRATE>
```

Fields description:

Field Name	Required	Description
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
CARDBIN	Y	BIN. The first 6 digits from the Card Number

DATETIME	Y	Request Date and Time. Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+CARDBIN+DATETIME+secret

A response for this request would be:

```
<CARDCURRENCYRATERESPONSE>
  <TERMINALCURRENCY>EUR</TERMINALCURRENCY>
  <CARDCURRENCY>GBP</CARDCURRENCY>
  <CONVERSIONRATE>0.667157</CONVERSIONRATE>
  <DATETIME>27-06-2007:16:50:02:999</DATETIME>
  <EXCHANGERATESOURCENAME>Imaginary Bank</EXCHANGERATESOURCENAME>
  <MARGINPERCENTAGE>1.50</MARGINPERCENTAGE>
  <COMMISSIONPERCENTAGE>1.00</COMMISSIONPERCENTAGE>
  <FOREIGNAMOUNT>15.98</FOREIGNAMOUNT>
  <HASH>a12a10322f5af4a8a419f7dc1c6dd39f</HASH>
</CARDCURRENCYRATERESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
TERMINALCURRENCY	Terminal's currency code
CARDCURRENCY	Card's currency code
CONVERSIONRATE	Conversion rate. See Note 2 below
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
EXCHANGERATESOURCENAME	Source of rates. Display on decision page.
MARGINPERCENTAGE	Margin percentage applied.
COMMISSIONPERCENTAGE	Commission percentage applied.
FOREIGNAMOUNT	Converted amount.
HASH	An MD5 hash. See Note 1 below

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALCURRENCY+CARDCURRENCY+CONVERSIONRATE+DATETIME+secret
2. In this string CONVERSIONRATE must be a decimal value with 6 decimal places separated by dot character ('.'), example: '0.123000'. The secret should be set by merchant in the selfcare section.

Errors handling

If there is an error processing the request, the error string is returned in an XML message with the simple:

```
<ERROR><ERRORSTRING></ERRORSTRING></ERROR>
```

tags.

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Integer-value error code
ERRORSTRING	Brief textual description

There is list of error codes and their brief descriptions:

Error Code	Description
101	Terminal not found
102	BIN not found
103	Currencies are the same
104	eDCC is not allowed for the terminal
105	Invalid card currency/Unknown currency
106	Conversion rate not found
107	Invalid request format
108	Invalid hash in the request
109	Other error
110	Internal error
111	Unsupported card currency

Notes:

1. Some errors can have more informative message. For example error with code 107 may have detailed information on wrong or expected tag(s) in the XML.

5.1.5.2 eDCC information in the XML requests

eDCC enabled XML requests must include FOREIGNCURRENCYINFORMATION tag and it nested tags.

There is an example of Foreign Currency information in the XML payment request:

```
<FOREIGNCURRENCYINFORMATION>
  <CARDCURRENCY>GBP</CARDCURRENCY>
  <CARDAMOUNT>6.67</CARDAMOUNT>
  <CONVERSIONRATE>0.667157</CONVERSIONRATE>
</FOREIGNCURRENCYINFORMATION>
```

Description of FOREIGNCURRENCYINFORMATION fields:

Field Name	Required	Description
FOREIGNCURRENCYINFORMATION	N	Outer tag for Currency Conversion Rate informative fields
CARDCURRENCY	Y	Card's currency code
CARDAMOUNT	Y	Amount which supposed to be charged in the home currency

CONVERSIONRATE	Y	Value received in the Conversion Rate request should be there. Processing bank (EuroConex) will decline transaction if wrong rate will be there.
----------------	---	--

Example of a Payment transaction with eDCC:

```
<?xml version="1.0" encoding="UTF-8"?>
<PAYMENT>
  <ORDERID>1150109224656</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>10</AMOUNT>
  <DATETIME>12-06-2006:11:47:04:656</DATETIME>
  <CARDNUMBER>4111111111111111</CARDNUMBER>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDEXPIRY>0807</CARDEXPIRY>
  <CARDHOLDERNAME>Joe Bloggs</CARDHOLDERNAME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
  <CURRENCY>EUR</CURRENCY>
  <FOREIGNCURRENCYINFORMATION>
    <CARDCURRENCY>GBP</CARDCURRENCY>
    <CARDAMOUNT>6.67</CARDAMOUNT>
    <CONVERSIONRATE>0.667157</CONVERSIONRATE>
  </FOREIGNCURRENCYINFORMATION>
  <TERMINALTYPE>1</TERMINALTYPE>
  <TRANSACTIONTYPE>7</TRANSACTIONTYPE>
  <CVV>214</CVV>
</PAYMENT>
```

Example of an eDCC Pre-Auth transaction:

```
<?xml version="1.0" encoding="UTF8"?>
<PREAUTH>
  <ORDERID>100028374319</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>15.62</AMOUNT>
  <DATETIME>18-12-2008:09:24:16:105</DATETIME>
  <CARDNUMBER>4111111111111111</CARDNUMBER>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDEXPIRY>1109</CARDEXPIRY>
  <CARDHOLDERNAME>Joe Bloggs</CARDHOLDERNAME>
  <HASH>9c58e8d7ff9eb98db4ece2af75dec6ae</HASH>
  <CURRENCY>EUR</CURRENCY>
  <FOREIGNCURRENCYINFORMATION>
    <CARDCURRENCY>GBP</CARDCURRENCY>
    <CARDAMOUNT>10.42</CARDAMOUNT>
    <CONVERSIONRATE>0.667157</CONVERSIONRATE>
  </FOREIGNCURRENCYINFORMATION>
  <TERMINALTYPE>1</TERMINALTYPE>
  <TRANSACTIONTYPE>7</TRANSACTIONTYPE>
  <CVV>214</CVV>
</PREAUTH>
```

Example of out of 15% margin eDCC Pre-Auth Completion transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<PREAUTHCOMPLETION>
  <ORDERID>100028374123</ORDERID>
  <TERMINALID>1001</TERMINALID>
  <AMOUNT>22.38</AMOUNT>
  <FOREIGNCURRENCYINFORMATION>
    <CARDCURRENCY>GBP</CARDCURRENCY>
    <CARDAMOUNT>14.93</CARDAMOUNT>
    <CONVERSIONRATE>0.667157</CONVERSIONRATE>
  </FOREIGNCURRENCYINFORMATION>
```

```
<DATETIME>19-12-2008:14:47:51:307</DATETIME>
<CVV>785</CVV>
<HASH>ff2e84856d7debbf07d3dfeffad5898c</HASH>
</PREAUTHCOMPLETION>
```

Note, that foreign currency information in the completion request is useful when completing an “out of 15% tolerance” transaction, because the original pre-auth transaction will be reversed and a new PAYMENT transaction will be authorized instead, and the foreign currency details provided will be used for the new transaction.

The original pre-auth exchange rate is used when an eDCC transaction within the 15% tolerance is completed

5.1.6 VoiceID & VoicePay

VoicePay lets your customers buy products online securely. All they need is their mobile phone. Voicepay uses the cardholders own voice to authenticate every transaction and since all of our voices are unique this makes shopping with VoicePay completely secure, and every transaction is guaranteed. More information can be found [here](#).

There are two types of Voice verification:

- VoiceID verifies the users identity, but does not perform a transaction.
- VoicePay verifies the users identity and uses it to authorise a transaction.

The following is a simple example of a VoiceID XML POST:

```
<?xml version="1.0" encoding="UTF-8"?>
<VOICEIDREQUEST>
  <ORDERID>qxic8324hrtb</ORDERID>
  <TERMINALID>1009</TERMINALID>
  <DATETIME>19-04-2011:10:46:57:000</DATETIME>
  <MOBILENUMBER>0789123456</MOBILENUMBER>
  <EMAIL>random@email.com</EMAIL>
  <HASH>6856accb08230a6665db9c2a90667eee</HASH>
  <DESCRIPTION>Sample VoiceID request</DESCRIPTION>
</VOICEIDREQUEST>
```

The following is a simple example of a VoicePay XML POST:

```
<?xml version="1.0" encoding="UTF-8"?>
<VOICEIDREQUEST>
  <ORDERID>a23t4va23d6y</ORDERID>
  <TERMINALID>1009</TERMINALID>
  <DATETIME>19-04-2011:10:43:13:000</DATETIME>
  <MOBILENUMBER>0789123456</MOBILENUMBER>
  <EMAIL>random@email.com</EMAIL>
  <VOICEIDPAYMENT>
    <AMOUNT>30.00</AMOUNT>
    <CURRENCY>GBP</CURRENCY>
  </VOICEIDPAYMENT>
  <HASH>7f86816681f6aef9bb3613468660f04c</HASH>
```

```
<DESCRIPTION>Order Desc</DESCRIPTION>
</VOICEIDREQUEST>
```

A response for this transaction would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<VOICEIDRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>SUCCESS</RESPONSETEXT>
  <ORDERID>115073356875</ORDERID>
  <DATETIME>20-06-2006:12:28:03:875</DATETIME>
  <HASH>6a06aa6f14fe539f4dedd305465811ab</HASH>
</VOICEIDRESPONSE>
```

The WorldNet TPS payment system then handles subsequent transaction settlement and storage.

The following is a description of each field:

Field Name	Required	Description
ORDERID	Y	The original order ID of the transaction.
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
MOBILENUMBER	Y	The cardholders VoiceID account registered phone number.
EMAIL	Y	The cardholders VoiceID account email address.
AMOUNT	N	The amount of the transaction as a 2 digits decimal or an Integer value for JPY amounts.
CURRENCY	N	A 3 character currency code of the transaction.
HASH	Y	An MD5 hash. See note 1 below.
OPERATOR	Y	An identifier for who executed this transaction
DESCRIPTION	N	An optional description for the transaction.

The following fields are returned in the response:

Field Name	Description
RESPONSECODE	A or D (Approved or Declined)
RESPONSETEXT	The text of the authorization
ORDERID	A unique identifier for the order created by the merchant.
DATETIME	Format DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See note 2 below.

Notes:

1) The MD5 hash is generated using the following as an input string:

TERMINALID+ORDERID+DATETIME+MOBILENUMBER+EMAIL+CURRENCY+AMOUNT+secret

- 2) The MD5 hash is generated using the following as an input string:
RESPONSECODE+RESPONSETEXT+ORDERID+AMOUNT+CURRENCY+DATETIME+secret

5.2 3D Secure for XML transactions (WorldNet TPS MPI)

To simplify 3D Secure integration using XML payments, WorldNet TPS provides a simple MPI redirect. To allow 3D Secure transactions for a terminal it should be configured and registered with the card schemes, please contact the WorldNet TPS support team for details.

The merchants application should redirect the cardholder's browser to the URL:

<https://testpayments.worldnettps.com/merchant/mpi>

The above URL should be used in test mode only, please contact the WorldNet TPS support team to receive the live URL.

Cardholder will have to pass the 3D Secure check, check result will be sent back to the merchant application as a GET request. Processing result response will include MPIREF parameter, which should be included in the XML payment request.

The following parameters should be passed in the request:

Field Name	Required	Description
TERMINALID	Y	A Terminal ID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
CARDNUMBER	Y	The payment card number
CARDEXPIRY	Y	4 digit expiry field (MMYY)
CARDTYPE	Y	See section 3.2 above.
AMOUNT	Y	The amount of the transaction as a 2 digit decimal or an Integer value for JPY amounts.
CURRENCY	Y	A 3 character currency code of the transaction.
ORDERID	Y	A unique identifier for the order created by the merchant. (Max 12 Characters)
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.

Notes:

- 1) The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+CARDNUMBER+CARDEXPIRY+CARDTYPE+AMOUNT+DA
 TETIME+secret

The following parameter are returned to a merchant application:

Field Name	Required	Description
RESULT		MPI processing result: A – Approved D – Declined
MPIREF		MPI reference, this value should be sent in the XML payment request if received from the WorldNet TPS MPI.
ORDERID		Original order identifier
DATETIME		Format: DD-MM- YYYY:HH:MM:SS:SSS
HASH		An MD5 hash. See Note 1 below.

Notes:

- 1) The MD5 hash is generated using the following as an input string:
 RESULT+MPIREF+ORDERID+DATETIME+secret

After the merchant application will receives the 3D Secure check result, it should send an XML payment request. If the 3D Secure check was successful ('A' Result) the payment request should contain the fields MPIREF, Order ID and Terminal ID and they should be the same as in the 3D Secure request. If the 3D Secure check was not successful ('D' Result) the application can send a non-3D Secure transaction (MPIREF will not be available in such case) or don't send payment transaction at all. We recommend that the transaction should be marked as declined in your system if our MPI rejects the transaction.

6 Secure Card Storage

Secure Card Storage is the storage of sensitive card information in the WorldNet system for use at a later date. It is a requirement for Subscription processing. It is useful for merchants that are required to perform regular payments without the card holder entering their information. Only PCI-DSS certified merchants are allowed to store card details themselves.

6.1 Secure Card Registration and Updating from the Hosted Page

Secure Card details can be registered or updated using the WorldNet TPS hosted page by the cardholder, card details will be stored using WorldNet TPS Secure Card Storage.

To initiate a Secure Card registration or update a POST must be made to the following URL:

<https://testpayments.worldnettps.com/merchant/securecardpage>

The following table describes the form fields to be posted:

Field Name	Required	Description
ACTION	Y	"register" or "update".
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
MERCHANTREF	Y	Unique Merchant Reference. Length is limited to 48 chars.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+ACTION+secret

Below is an example HTML form to open card details registration page.

```
<html>
  <body>
    <form action="https://testpayments.worldnettps.com/merchant/securecardpage" method="post">
      <input type="hidden" name="ACTION" value="register" />
      <input type="hidden" name="TERMINALID" value="6491002" />
```

```

        <input type="hidden" name="MERCHANTREF" value="1234321" />
        <input type="hidden" name="DATETIME" value="15-03-2006:10:43:01:673" />
        <input type="hidden" name="HASH" value="d5d3441fb0e8318ce6d03976c2e93749" />
        <input type="submit" value="Register" />
    </form>
</body>
</html>
    
```

To initiate card details updating, the value of the ACTION parameter should be changed to “update”. A Secure Card of MERCHANTREF 1234321 must be already existing under your account. Please note that the TERMINALID here is not valid and must be changed.

Assuming valid details were sent, the Hosted Registration or Update page will be displayed, clicking on “Register” or “Update” will save the card details, result GET parameters will be forwarded to the Secure Card URL that is configured on the Terminal Setup page.

Following parameters will be sent to the Secure Card Receipt URL:

Field Name	Required	Description
RESPONSECODE	Y	Response Code “A” - Approval, check the Response Codes table below for a full list of all supported codes.
RESPONSETEXT	Y	Response Text
MERCHANTREF	Y	Original Merchant Reference.
CARDREFERENCE	Y	Generated Card Reference
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+RESPONSECODE+RESPONSETEXT+MERCHANTREF+CARDREFERENCE+DATETIME+secret

Response Codes:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E02	CARD ALREADY EXISTS
E03	OPERATION NOT ALLOWED
E04	INVALID REFERENCE DETAILS
E05	INVALID CARD TYPE
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E09	INVALID DATETIME
E10	INVALID CARDNUMBER

E11	INVALID CARDEXPIRY
E12	INVALID CARDHOLDERNAME
E13	INVALID HASH

If invalid parameter values are sent, an Error Page will appear and the web browser will not be redirected to the Secure Card Receipt Page. This should not happen in a production environment after integration is completed.

6.2 XML Secure Card Integration

6.2.1 Secure Card Details Registration and Updating

The following is an example of a Secure Card Details Registration request for a terminal:

```
<?xml version="1.0" encoding="UTF-8"?>
<SECURECARDREGISTRATION>
  <MERCHANTREF>77001</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-12-2008:23:59:59:001</DATETIME>
  <CARDNUMBER>4444333322221111</CARDNUMBER>
  <CARDEXPIRY>1208</CARDEXPIRY>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDHOLDERNAME>Joe Bloggs<CARDHOLDERNAME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDREGISTRATION>
```

The following is an example of a Secure Card Details Updating request:

```
<?xml version="1.0" encoding="UTF-8"?>
<SECURECARDUPDATE>
  <MERCHANTREF>77001</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-12-2008:23:59:59:001</DATETIME>
  <CARDNUMBER>4444333322221111</CARDNUMBER>
  <CARDEXPIRY>1208</CARDEXPIRY>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDHOLDERNAME>Joe Bloggs<CARDHOLDERNAME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDUPDATE>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique Merchant Reference. Length is limited to 48 chars.
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
CARDNUMBER	Y	The payment card number
CARDEXPIRY	Y	4 digit expiry field (MMYY)
CARDTYPE	Y	Card type supported by terminal
CARDHOLDERNAME	Y	Cardholder name

HASH	Y	An MD5 hash. See note 1 below.
DONTCHECKSECURITY	N	Send "Y" if you would not like CVV sent online for this registration.
CVV	N	The security code entered by the card holder. If sent (and "DONTCHECKSECURITY" not "Y") then WorldNet will perform an authorisation for 0.05. If authorised WorldNet will void the transaction so that it is not charged to the cardholder and add the SecureCard. If declined or referred WorldNet will return an error to the SecureCard registration request.
ISSUENO	N	The issue no. of the card (Solo)

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+CARDNUMBER+CARDEXPIRY+CARD
 TYPE+CARDHOLDERNAME+secret

If the card was successfully registered, response for registration request would be:

```
<SECURECARDREGISTRATIONRESPONSE>
  <MERCHANTREF>77001</MERCHANTREF>
  <CARDREFERENCE>2999990000000001</CARDREFERENCE>
  <DATETIME>31-12-2008:23:59:59:002</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDREGISTRATIONRESPONSE>
```

Example of a successful card updating response:

```
<SECURECARDUPDATERESPONSE>
  <MERCHANTREF>77001</MERCHANTREF>
  <CARDREFERENCE>2999990000000001</CARDREFERENCE>
  <DATETIME>31-12-2008:23:59:59:002</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDUPDATERESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
CARDREFERENCE	System-Generated Card Reference (Secure Card)
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string: TERMINALID + MERCHANTREF + CARDREFERENCE + DATETIME + secret

Error handling

If card was not registered or updated, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

There is list of error codes and corresponding messages:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E02	CARD ALREADY EXISTS
E03	OPERATION NOT ALLOWED
E04	INVALID REFERENCE DETAILS
E05	INVALID CARD TYPE
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E09	INVALID DATETIME
E10	INVALID CARDNUMBER
E11	INVALID CARDEXPIRY
E12	INVALID CARDHOLDERNAME
E13	INVALID HASH

6.2.2 Card Details Removal

Card details removal request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<SECURECARDREMOVAL>
  <MERCHANTREF>77001</MERCHANTREF>
  <CARDREFERENCE>2967534771694736</CARDREFERENCE>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-12-2008:23:59:59:001</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDREMOVAL>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique Merchant Reference. Length is

		limited to 48 chars.
CARDREFERENC E	Y	System-Generated Card Reference (Secure Card)
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+CARDREFERENCE+secret

Card detail successful deletion response format:

```
<SECURECARDREMOVALRESPONSE>
  <DATETIME>31-12-2008:23:59:59:002</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDREMOVALRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If request was not successful, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

There is list of error codes and corresponding messages:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN

E03	OPERATION NOT ALLOWED
E04	INVALID REFERENCE DETAILS
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E13	INVALID HASH

6.2.3 Card Details Search

Secure Card search by Merchant Reference can be performed as needed:

```
<?xml version="1.0" encoding="UTF-8"?>
<SECURECARDSEARCH>
  <MERCHANTREF>77001</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-12-2008:23:59:59:001</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDSEARCH>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique Merchant Reference. Length is limited to 48 chars.
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+secret

Secure Card detail successful deletion response format:

```
<SECURECARDSEARCHRESPONSE>
  <MERCHANTREF>77001</MERCHANTREF>
  <CARDREFERENCE>2967532702149716</CARDREFERENCE>
  <CARDTYPE>VISA</CARDTYPE>
  <CARDEXPIRY>1208</CARDEXPIRY>
  <CARDHOLDERNAME>Joe Bloggs</CARDHOLDERNAME>
  <DATETIME>31-12-2008:23:59:59:001</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</SECURECARDSEARCHRESPONSE>
```

The following fields will be returned in the response:

Field Name	Required	Description
MERCHANTREF	Y	Unique Merchant Reference. Length is limited to 48 chars.
CARDREFERENCE	Y	Card Reference
CARDTYPE	Y	Card type supported by terminal
CARDEXPIRY	Y	4 digit expiry field (MMYY)

CARDHOLDERNAME	Y	Cardholder name
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+CARDREFERENCE+CARDTYPE+CARDEXPIRY+CARDHOLDERNAME+DATETIME+secret

Errors handling

If request was not successful, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E04</ERRORCODE>
  <ERRORSTRING>INVALID REFERENCE DETAILS</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

There is list of error codes and corresponding messages:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E03	OPERATION NOT ALLOWED
E04	INVALID REFERENCE DETAILS
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E13	INVALID HASH

6.2.4 XML Payments using Registered Card

To send a payment transaction using a registered card, a standard PAYMENT request should be sent. The Card Type should be set to 'SECURECARD', the CARDNUMBER should contain the Secure Card Reference, both CARDEXPIRY and CARDHOLDERNAME tags should be omitted from the request.

7 Subscriptions

WorldNet Subscriptions is a versatile and complete recurring payments solution. It can be used in two main ways:

1. Automatic payments - This is a fully automated solution that will manage the lifetime of a recurring payment once it is registered and notify the merchant of any issues that happen during its lifetime.
2. Manual payments - With this solution, recurring payments are set up in our system just as they are for automatic payments. The main difference is that our system does not actually process payments automatically. Instead, when a payment is pending, the merchant should initiate the payment, either via an "XML Payment Request" or through the SelfCare system. Another difference with this method is that you can modify the amount of the payment.

Subscriptions can only be set up on card details already stored in our system using the Secure Card feature above. Subscriptions are set up in two levels:

1. Stored Subscriptions - Stored subscriptions are not subscriptions in their own right, but instead are templates for multiple subscriptions that are registered under them. They define the period (daily / weekly / monthly / quarterly / annually), the number of those periods (if it's a fixed number), setup price, recurring price, etc. They are intended to represent a product, for example.
2. Subscriptions - Every subscription set up has to be under a Stored Subscription. However some of the settings of the stored subscription can be overruled by the Subscription itself, as you will see below. Subscriptions are intended to represent a specific order of a product represented by the stored subscription that it's under.

7.1 Subscription Registration from the Hosted Page

New Subscription can be registered from the WorldNet TPS hosted page. When new subscription is created its name, description, set-up price, recurring price, length, period type and type are copied from the corresponding stored subscription,

To get Subscription Registration Page opened in a client browser a POST must be made to the following URL:

<https://testpayments.worldnettps.com/merchant/subscriptionpage/register>

Subscription registration POST parameters description:

Field Name	Required	Description
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
MERCHANTREF	Y	Unique Merchant Reference. Length is limited to 48 chars.
STOREDSUBSCRIPTIONREF	N	This field is required if new Subscription being created should be based on already existing Stored Subscription
SECURECARDMERCHANTREF	Y	Merchant Reference of a Sucre Card which will be used to do set-up and recurring payments
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
STARTDATE	Y	Subscription Start Date
ENDDATE	N	Subscription End Date, if it is not set subscription will continue until manually canceled or length reached (if it is set)
HASH	Y	An MD5 hash. See Note 1 below.
Following parameters should be posted if new Stored Subscription should be created (STOREDSUBSCRIPTIONREF shouldn't be posted in such case)		
NEWSTOREDSUBSCRIPTIONREF	N	Merchant Ref to be assigned for new Stored Subscription being created
NAME	Y	Display name for subscription
DESCRIPTION	Y	Description explaining subscription
PERIODTYPE	Y	Integer code of Period Type, can be: 1 - DAILY, 2 - WEEKLY, 3 - FORTNIGHTLY, 4 - MONTHLY, 5 - QUARTERLY, 6 - YEARLY
LENGTH	Y	0 for non ending / multiplier of period. This does not take effect if (Subscription length * Period Type) > (End Date – Current Date)
RECURRINGAMOUNT	Y	Cost of each payment (will be ignored if manual)
INITIALAMOUNT	Y	Initial (set-up) payment to be taken off card. Payment will not be taken if it is 0.
TYPE	Y	Integer code of subscription type: 1 – AUTOMATIC / 2 - MANUAL
ONUPDATE	Y	Integer code of onupdate: 1- CONTINUE/2 – UPDATE (Let all depending subscriptions finish their subscription prior to update / Update name, description, recurringprice,

		setupprice, subscriptionlength, periodtype, type for all subscriptions)
ONDELETE	Y	Integer code of ondelete:1 - CONTINUE/2 - CANCEL (Continue subscriptions until cancelled manually or reach end date or length / Cancel all subscriptions)

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+SECURECARDMERCHANTREF+DATETIME+STARTDATE+secret

Below is an example HTML form to open subscription registration page.

```
<html>
  <body>
    <form action="https://testpayments.worldnettps.com/merchant/subscriptionpage/register"
method="post">
      <input type="hidden" name="TERMINALID" value="6491002">
      <input type="hidden" name="MERCHANTREF" value="26352">
      <input type="hidden" name="STOREDSUBSCRIPTIONREF" value="6523423">
      <input type="hidden" name="SECURECARDMERCHANTREF" value="237498">
      <input type="hidden" name="DATETIME" value="03-08-2009:17:32:18:329">
      <input type="hidden" name="STARTDATE" value="04-08-2009">
      <input type="hidden" name="ENDDATE" value="03-08-2010">
      <input type="hidden" name="HASH" value="b9a034421808a80dc8f1a5657da80f95">
      <input type="submit" value="Register">
    </form>
  </body>
</html>
```

Assuming valid details were sent, the Subscription Registration Hosted page will be displayed, clicking on "Accept & Subscribe" button will create the subscription only if the setup amount authorises successfully, and the resulting GET parameters will be forwarded to the Subscription Receipt URL that is configured on the Terminal Setup page. If Subscription Secure Card currency is other than Stored Subscription currency then eDCC Decision Page will be displayed, and the customer will have to decide if eDCC should be used for the initial and all subsequent payments for the subscription.

Following parameters will be sent to the Subscription Receipt URL:

Field Name	Required	Description
RESPONSECODE	Y	Response Code: "A" - Approval, "C" - Cancelled. If subscription was not registered because of invalid date then WorldNet TPS error page with detailed message will be displayed in client browser.
RESPONSETEXT	Y	Response Text
MERCHANTREF	Y	Original Merchant Reference.
CARDREFERENCE	Y	Generated Card Reference

DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See Note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+RESPONSECODE+RESPONSETEXT+s
 ecret

If invalid parameter values will be sent, an Error Page will appear and the web browser will not be redirected to the Subscription Receipt Page. This should not happen in a production environment after integration is completed.

7.2 XML Subscriptions Integration

Stored Subscription and Subscriptions can be managed through XML Gateway.

7.2.1 Stored Subscription Creation Request

The following is an example of a Stored Subscription Registration request for a terminal:

```
<?xml version="1.0" encoding="UTF8"?>
<ADDSTOREDSUBSCRIPTION>
  <MERCHANTREF>MR001</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>30-07-2009:15:26:38:027</DATETIME>
  <NAME>Animal Life</NAME>
  <DESCRIPTION>Magazine membership</DESCRIPTION>
  <PERIODTYPE>MONTHLY</PERIODTYPE>
  <LENGTH>12</LENGTH>
  <CURRENCY>EUR</CURRENCY>
  <RECURRINGAMOUNT>15.87</RECURRINGAMOUNT>
  <INITIALAMOUNT>10.99</INITIALAMOUNT>
  <TYPE>AUTOMATIC</TYPE>
  <ONUPDATE>CONTINUE</ONUPDATE>
  <ONDELETE>CANCEL</ONDELETE>
  <HASH>750f7c545a3d63ecaf3b48c149b95555</HASH>
</ADDSTOREDSUBSCRIPTION>
```

Example of a Stored Subscription Updating request:

```
<?xml version="1.0" encoding="UTF8"?>
<UPDATESTOREDSUBSCRIPTION>
  <MERCHANTREF>13231</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-07-2009:16:07:21:000</DATETIME>
  <NAME>Animal Life</NAME>
  <DESCRIPTION>Magazine membership</DESCRIPTION>
  <PERIODTYPE>MONTHLY</PERIODTYPE>
  <LENGTH>12</LENGTH>
  <CURRENCY>EUR</CURRENCY>
```

```

<RECURRINGAMOUNT>15.99</RECURRINGAMOUNT>
<INITIALAMOUNT>10.99</INITIALAMOUNT>
<TYPE>AUTOMATIC</TYPE>
<ONUPDATE>CONTINUE</ONUPDATE>
<ONDELETE>CANCEL</ONDELETE>
<HASH>5023bbb6726d1b5d2dcb7c77fb11b94f</HASH>
</UPDATESTOREDSUBSCRIPTION>

```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique merchant identifier per terminal. Length is limited to 48 chars.
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
NAME	Y	Display name for subscription
DESCRIPTION	Y	Description explaining subscription
PERIODTYPE	Y	Period Type, can be: DAILY, WEEKLY, FORTNIGHTLY, MONTHLY, QUARTERLY, YEARLY
LENGTH	Y	0 for non ending / multiplier of period. This does not take effect if (Subscription length * Period Type) > (End Date - Current Date)
CURRENCY	Y	Currency of subscription, this must either the base currency of the terminal or if supported, one of the configured allowed currencies
RECURRINGAMOUNT	Y	Cost of each payment (will be ignored if manual)
INITIALAMOUNT	Y	Initial (set-up) payment to be taken off card. Payment will not be taken if it is 0.
TYPE	Y	MANUAL / AUTOMATIC / AUTOMATIC (WITHOUT AMOUNTS)
ONUPDATE	Y	UPDATE/CONTINUE (Update name, description, recurringprice, setupprice, subscriptionlength, periodtype, type for all subscriptions/Let them finish their subscription prior to update)
ONDELETE	Y	CANCEL/CONTINUE (Cancel all subscriptions / Continue subscriptions until cancelled manually or reach end date or length)
HASH	Y	An MD5 hash. See note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+TYPE+NAME+PERIODTYPE+CURRENCY+RECURRINGAMOUNT+INITIALAMOUNT+LENGTH+secret

If new stored subscription was successfully registered, response would be:

```
<ADDSTOREDSUBSCRIPTIONRESPONSE>
  <MERCHANTREF>13231</MERCHANTREF>
  <DATETIME>30-07-2009:15:26:39:745</DATETIME>
  <HASH>d04c3bab519095ecb046eff91722e8df</HASH>
</ADDSTOREDSUBSCRIPTIONRESPONSE>
```

Example of a successful stored subscription updating response:

```
<UPDATESTOREDSUBSCRIPTIONRESPONSE>
  <MERCHANTREF>13231</MERCHANTREF>
  <DATETIME>31-07-2009:16:07:21:329</DATETIME>
  <HASH>0af49616cad0fd1e19bc709de7d7c934</HASH>
</UPDATESTOREDSUBSCRIPTIONRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If stored subscription was not registered or updated, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

Stored Subscription creation and updating error codes:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E03	OPERATION NOT ALLOWED
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E09	INVALID DATETIME
E13	INVALID HASH
E20	INVALID LENGTH
E21	INVALID PERIOD TYPE

E22	INVALID NAME
E23	INVALID DESCRIPTION
E24	INVALID RECURRINGAMOUNT
E25	INVALID INITIALAMOUNT
E26	INVALID TYPE
E27	INVALID ONUPDATE
E28	INVALID ONDELETE
E29	INVALID TERMINAL CURRENCY

7.2.2 Stored Subscription Deletion Request

To delete stored subscription following XML Gateway request should be send:

```
<?xml version="1.0" encoding="UTF8"?>
<DELETESTOREDSSUBSCRIPTION>
  <MERCHANTREF>13231</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <DATETIME>31-07-2009:20:49:34:798</DATETIME>
  <HASH>efc5a04b5a98be9bd59ec5383abb9161</HASH>
</DELETESTOREDSSUBSCRIPTION>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique merchant identifier per terminal. Length is limited to 48 chars.
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
TERMINALID+MERCHANTREF+DATETIME+secret

Example of a successful stored subscription deletion response:

```
<DELETESTOREDSSUBSCRIPTIONRESPONSE>
  <MERCHANTREF>13231</MERCHANTREF>
  <DATETIME>31-07-2009:20:49:35:381</DATETIME>
  <HASH>8a8f462278c730e9de5561d8f186d7dc</HASH>
</DELETESTOREDSSUBSCRIPTIONRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- 1) The MD5 hash is generated using the following as an input string:

TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If stored subscription was not registered or updated, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

There is list of error codes and corresponding messages:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E03	OPERATION NOT ALLOWED
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E09	INVALID DATETIME
E13	INVALID HASH

7.2.3 Subscription Creation Request

Each subscription should be created based on some stored subscription. When new subscription is created its name, description, set-up price, recurring price, length, period type and type are copied from the corresponding stored subscription, most subscription fields can be changed by Subscription Updating request.

To create new subscription based on an existing Stored Subscription following XML Gateway request should be sent:

```
<?xml version="1.0" encoding="UTF8"?>
<ADDSUBSCRIPTION>
  <MERCHANTREF>MR01-02</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <STOREDSUBSCRIPTIONREF>MR01</STOREDSUBSCRIPTIONREF>
  <SECURECARDMERCHANTREF>7126</SECURECARDMERCHANTREF>
  <DATETIME>30-07-2009:15:34:23:671</DATETIME>
  <STARTDATE>01-08-2009</STARTDATE>
  <ENDDATE>31-07-2010</ENDDATE>
  <EDCCDECISION>Y</EDCCDECISION>
  <HASH>8515ccc5605651c12ab0645f79eb0271</HASH>
```

```
</ADDSUBSCRIPTION>
```

If Stored Subscription doesn't yet exist it can be created putting all its details into the nested **NEWSTOREDSUBSCRIPTIONINFO** tag, **STOREDSUBSCRIPTIONREF** in such case should be omitted. There is an example of such request:

```
<?xml version="1.0" encoding="UTF8"?>
<ADDSUBSCRIPTION>
  <MERCHANTREF>MR02-02</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <SECURECARDMERCHANTREF>7126</SECURECARDMERCHANTREF>
  <DATETIME>30-07-2009:15:34:23:671</DATETIME>
  <STARTDATE>01-08-2009</STARTDATE>
  <ENDDATE>31-07-2010</ENDDATE>
  <EDCCDECISION>Y</EDCCDECISION>
  <NEWSTOREDSUBSCRIPTIONINFO>
    <MERCHANTREF>MR001</MERCHANTREF>
    <NAME>Animal Life</NAME>
    <DESCRIPTION>Magazine membership</DESCRIPTION>
    <PERIODTYPE>MONTHLY</PERIODTYPE>
    <LENGTH>12</LENGTH>
    <CURRENCY>EUR</CURRENCY>
    <RECURRINGAMOUNT>15.87</RECURRINGAMOUNT>
    <INITIALAMOUNT>10.99</INITIALAMOUNT>
    <TYPE>AUTOMATIC</TYPE>
    <ONUPDATE>CONTINUE</ONUPDATE>
    <ONDELETE>CANCEL</ONDELETE>
  </NEWSTOREDSUBSCRIPTIONINFO>
  <HASH>8515ccc5605651c12ab0645f79eb0271</HASH>
</ADDSUBSCRIPTION>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique merchant identifier per terminal. Length is limited to 48 chars.
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
STOREDSUBSCRIPTIONREF	N	Stored Subscription Merchant Reference, it is allowed only if <i>NEWSTOREDSUBSCRIPTIONINFO</i> do not present.
SECURECARDMERCHANTREF	Y	Merchant Reference of a Sucre Card which will be used to do set-up and recurring payments
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
STARTDATE	Y	Subscription Start Date. Format: DD-MM-YYYY
ENDDATE	N	Subscription End Date, if it is not set subscription will continue until manually canceled or length reached (if it is set). Format: DD-MM-YYYY
EDCCDECISION	N	This field is supported by eDCC-enabled terminals only and will be ignored if terminal doesn't support eDCC. Can be "Y" or "N"
NEWSTOREDSUBSCRIPTIONINFO	N	It is allowed only if <i>STOREDSUBSCRIPTIONREF</i> is not set. This tag and all its children should be set if Stored Subscription on which new Subscription being added should be based doesn't exist yet and should be created. Please

		<i>check NEWSTOREDSUBSCRIPTIONINFO fields description table for details.</i>
HASH	Y	An MD5 hash. See note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+STOREDSUBSCRIPTIONREF+SECURECARDMER
 CHANTREF+DATETIME+STARTDATE+secret
2. STOREDSUBSCRIPTIONREF should be omitted if it is not set.

NEWSTOREDSUBSCRIPTIONINFO fields description:

Field Name	Required	Description
MERCHANTREF	Y	Unique merchant identifier per terminal. Length is limited to 48 chars.
NAME	Y	Display name for subscription
DESCRIPTION	Y	Description explaining subscription
PERIODTYPE	Y	Period Type, can be: DAILY, WEEKLY, FORTNIGHTLY, MONTHLY, QUARTERLY, YEARLY
LENGTH	Y	0 for non ending / multiplier of period. This does not take effect if (Subscription length * Period Type) > (End Date - Current Date)
CURRENCY	Y	Currency of subscription, this must either the base currency of the terminal or if supported, one of the configured allowed currencies
RECURRINGAMOUNT	N	Cost of each payment (should not be sent if TYPE is "MANUAL")
INITIALAMOUNT	Y	Initial (set-up) payment to be taken off card. Payment will not be taken if it is 0.
TYPE	Y	MANUAL / AUTOMATIC
ONUPDATE	Y	UPDATE/CONTINUE (Update name, description, recurringprice, setupprice, subscriptionlength, periodtype, type for all subscriptions/Let them finish their subscription prior to update)
ONDELETE	Y	CANCEL/CONTINUE (Cancel all subscriptions / Continue subscriptions until cancelled manually or reach end date or length)

Example of a successful subscription creation response:

```
<ADDSUBSCRIPTIONRESPONSE>
  <MERCHANTREF>MR02-02</MERCHANTREF>
  <DATETIME>30-07-2009:15:34:24:305</DATETIME>
  <HASH>8bb39be67a1f05bf73fe334e12037257</HASH>
</ADDSUBSCRIPTIONRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If new subscription was not registered, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

Subscription creation and updating error codes:

Error Code	Description
E01	SYSTEM ERROR – TRY AGAIN
E03	OPERATION NOT ALLOWED
E06	INVALID TERMINALID
E07	METHOD NOT SUPPORTED
E08	INVALID MERCHANTREF
E09	INVALID DATETIME
E13	INVALID HASH
E20	INVALID LENGTH
E21	INVALID PERIOD TYPE
E22	INVALID NAME
E23	INVALID DESCRIPTION
E24	INVALID RECURRINGAMOUNT
E25	INVALID INITIALAMOUNT
E26	INVALID TYPE
E27	INVALID ONUPDATE
E28	INVALID ONDELETE
E29	INVALID TERMINAL CURRENCY
E30	INVALID STORED SUBSCRIPTION REF
E31	INVALID STORED SUBSCRIPTION MERCHANT REF

E32	INVALID SECURE CARD MERCHANT REF
E33	INVALID STARTDATE
E34	INVALID ENDDATE
E35	INVALID EDCCDECISION
E36	SETUP PAYMENT PROCESSING ERROR

7.2.4 Subscription Updating Request

The following is an example of a Subscription Updating request:

```
<?xml version="1.0" encoding="UTF8"?>
<UPDATESUBSCRIPTION>
  <MERCHANTREF>MR001</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <SECURECARDMERCHANTREF>8328</SECURECARDMERCHANTREF>
  <DATETIME>30-07-2009:09:59:38:921</DATETIME>
  <NAME>Animal Life</NAME>
  <DESCRIPTION>Magazine membership</DESCRIPTION>
  <PERIODTYPE>MONTHLY</PERIODTYPE>
  <LENGTH>12</LENGTH>
  <RECURRINGAMOUNT>15.87</RECURRINGAMOUNT>
  <STARTDATE>23-08-2009</STARTDATE>
  <ENDDATE>22-08-2010</ENDDATE>
  <EDCCDECISION>Y</EDCCDECISION>
  <HASH>53b6917aac8eb179e8b80f754c4afd5c</HASH>
</UPDATESUBSCRIPTION>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Merchant Ref of subscription which should be updated
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
SECURECARDMERCHANTREF	Y	Merchant Reference of a Sucre Card which will be used to do recurring payments
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
NAME	N	Subscription Name
DESCRIPTION	N	Subscription Description
PERIODTYPE	N	New Period Type
LENGTH	N	Subscription Length
RECURRINGAMOUNT	N	New Recurring Amount
STARTDATE	N	Subscription Start Date
ENDDATE	N	Subscription End Date, if it is not set subscription will continue until manually canceled or length reached (if it is set)
EDCCDECISION	N	This field is supported by a eDCC-enabled terminals only and will be ignored if terminal doesn't supports eDCC. Can be "Y" or "N"

HASH	Y	An MD5 hash. See note 1 below.
------	---	--------------------------------

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+SECURECARDMERCHANTREF+DATETIME+STAR
 TDATE+secret

Example of a successful subscription updating response:

```
<UPDATESUBSCRIPTIONRESPONSE>
  <MERCHANTREF>MR02-02</MERCHANTREF>
  <DATETIME>30-07-2009:15:34:24:305</DATETIME>
  <HASH>8bb39be67a1f05bf73fe334e12037257</HASH>
</UPDATESUBSCRIPTIONRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If subscription was not updated, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
ERRORCODE	Error code
ERRORSTRING	Textual message

Possible error codes are covered I the Subscription creation and updating error codes.

7.2.5 Subscription Deletion Request

The following is an example of a Subscription Deletion request:

```
<?xml version="1.0" encoding="UTF8"?>
<DELETESUBSCRIPTION>
  <MERCHANTREF>MR002</MERCHANTREF>
  <TERMINALID>6491002</TERMINALID>
  <SECURECARDMERCHANTREF>8328</SECURECARDMERCHANTREF>
  <DATETIME>31-07-2009:11:03:42:328</DATETIME>
  <HASH>53b6917aac8eb179e8b80f754c4afd5c</HASH>
</DELETESUBSCRIPTION>
```

Fields description:

Field Name	Required	Description
MERCHANTREF	Y	Merchant Ref of subscription which should be deleted
TERMINALID	Y	A TerminalID provided by WorldNet TPS.
DATETIME	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	Y	An MD5 hash. See note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
TERMINALID+MERCHANTREF+DATETIME+secret

Example of a successful subscription deletion response:

```
<DELETESUBSCRIPTIONRESPONSE>
  <MERCHANTREF>MR02-02</MERCHANTREF>
  <DATETIME>30-07-2009:15:34:24:305</DATETIME>
  <HASH>8bb39be67a1f05bf73fe334e12037257</HASH>
</DELETESUBSCRIPTIONRESPONSE>
```

The following fields will be returned in the response:

Field Name	Description
MERCHANTREF	Original Merchant Reference sent in registration request
DATETIME	Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
TERMINALID+MERCHANTREF+DATETIME+secret

Errors handling

If subscription was not deleted, error code and error message will be returned:

```
<ERROR>
  <ERRORCODE>E08</ERRORCODE>
  <ERRORSTRING>INVALID MERCHANTREF</ERRORSTRING>
</ERROR>
```

The following fields are returned in the response if error has occurred:

Field Name	Description
------------	-------------

ERRORCODE	Error code
ERRORSTRING	Textual message

Possible error codes are covered I the Subscription creation and updating error codes.

7.2.6 Subscription Payment Request

Manual subscription recurring payment can be done from the XML Gateway. If automatic subscription was not paid automatically because of card details expiration or other issue it also can be paid in the same way as manual after Secure Card issue was solved. The following is an example of a Subscription Payment request:

```
<?xml version="1.0" encoding="UTF8"?>
<SUBSCRIPTIONPAYMENT>
  <ORDERID>8362</ORDERID>
  <TERMINALID>6491002</TERMINALID>
  <AMOUNT>87.78</AMOUNT>
  <SUBSCRIPTIONREF>311</SUBSCRIPTIONREF>
  <FOREIGNCURRENCYINFORMATION>
    <CARDCURRENCY>JPY</CARDCURRENCY>
    <CARDAMOUNT>10638</CARDAMOUNT>
    <CONVERSIONRATE>121.186190</CONVERSIONRATE>
  </FOREIGNCURRENCYINFORMATION>
  <DATETIME>31-07-2009:14:09:59:121</DATETIME>
  <EMAIL>cardholder_email@worldnettps.com</EMAIL>
  <HASH>53b6917aac8eb179e8b80f754c4afd5c</HASH>
</SUBSCRIPTIONPAYMENT>
```

Fields description:

Field Name	Required	Description
ORDERID	Y	A unique identifier for the order created by the merchant. (Max 12 Characters)
TERMINALID	Y	A TerminalID provided by WorldNet TPS. NB – Please contact WorldNet TPS to be issued with a test terminal ID.
AMOUNT	Y	The amount of the transaction as a 2 digit decimal or an Integer value for JPY amounts.
SUBSCRIPTIONREF	Y	Merchant reference of a subscription being paid
DESCRIPTION	N	Transaction Description
FOREIGNCURRENC YINFORMATION	N	It is accepted for eDCC enabled subscriptions only.
DATETIME	Y	Format: DD-MM- YYYY:HH:MM:SS:SSS
EMAIL	N	Cardholder e-mail address

HASH	Y	An MD5 hash. See note 1 below.
------	---	--------------------------------

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+SUBSCRIPTIONREF+AMOUNT+DATETIME+secret
2. 1. FOREIGNCURRENCYINFORMATION tag requires inter eDCC tags please check Error: Reference source not found for details.

Example of a successful subscription payment response:

```
<SUBSCRIPTIONPAYMENTRESPONSE>
  <RESPONSECODE>A</RESPONSECODE>
  <RESPONSETEXT>APPROVAL</RESPONSETEXT>
  <APPROVALCODE>406243</APPROVALCODE>
  <DATETIME>31-07-2009:14:10:03:834</DATETIME>
  <HASH>6dd32c4b61f180dd791310f9c07d76a1</HASH>
</SUBSCRIPTIONPAYMENTRESPONSE>
```

The following fields are returned in the response:

Field Name	Description
RESPONSECODE	A or D or R (Approved or Declined or Referral)
RESPONSETEXT	The text of the authorization
APPROVALCODE	Six digit AuthCode
DATETIME	The time of the transaction created by the bank. Format: DD-MM-YYYY:HH:MM:SS:SSS
HASH	An MD5 hash. See Note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT+secret

Errors handling

If subscription payment was not accepted, error message will be returned:

```
<ERROR>
  <ERRORSTRING>Invalid HASH field</ERRORSTRING>
</ERROR>
```

8 Bulk Payments

Bulk payments are useful for merchants that need to process a large amount of transaction periodically for the customers.

We allow submission of these transactions in a csv file. We will immediately return a response based on file format and field validation.

An e-mail notification will be sent when the bulk file has been processed. This will only be sent if the notification email is configured. Please see the Selfcare User Guide for details.

If the customer does not wish to automate their bulk payments, all of these features are available inside our Selfcare system. Please see the Selfcare User Guide for details.

8.1 Request File Submission

A HTTP POST will be sent to:

<https://testpayments.worldnettps.com/merchant/bulkpayments>

during testing. The live URL will be supplied when the merchant is ready to go live.

The parameters for the HTTP POST are:

Field Name	Required	Description
terminalid	Y	Terminal ID Provided by Worldnet TPS
transactioncount	Y	The count of transactions in the bulk payment file
batchtotal	Y	The net total of all amount fields in the bulk payment file.
datetime	Y	The date time of submission. Format: DD-MM-YYYY:HH:MM:SS:SSS
hash	Y	MD5(terminalid + transactioncount+batchtotal+datetime+secret) This is an MD5 hash of the above described string without +'s. The secret should be set by merchant in the selfcare section.

8.2 Request CSV File Format

Field Name	Required	Description
Order ID	Y	A unique reference generated by Merchant system to identify the transaction. (Max 12 Characters)
Currency	Y	ISO 4217 Currency Code. List here .
Amount	Y	Amount formatted to two decimal places. E.g. 1653.00
Card Number	Y	Card PAN
Card Type	Y	See section 3.2 above.
Card Expiry	Y	MMYY
Card Holder Name	Y	
Address 1	N	AVS Address Line 1
Address 2	N	AVS Address Line 2
Post Code	N	AVS Post Code
Date Time	Y	Format: DD-MM-YYYY:HH:MM:SS:SSS
Hash	Y	An MD5 hash of TerminalID + OrderID + Amount + DateTime + secret Amount should be formatted to 2 decimal places.
Auto Ready	N	Set to Y for setting auto ready or N to mark as pending
Description	N	Optional transaction description
Email	N	Card holder email for notification

8.3 Request File Submission Response

The response is returned in csv format as a string, e.g. "200","76528"

The response contains the following fields :

Field Name	Required	Description
Response Code	Y	Code defining the result of the bulk payment submission. Code is a 3 digit numeric code. Possible responses codes : 200 VALIDATION OK 001 INVALID FILE ITEM COUNT 002 INVALID FILE FORMAT

		003 FILE UPLOAD ERROR
		004 INVALID TRANSACTION COUNT
		005 INVALID BATCH TOTAL
		006 INVALID TERMINAL ID
		007 INVALID DATETIME
		008 INVALID HASH
		009 NOTHING TO SETTLE
		010 INVALID NUMBER OF BATCH FILES
		011 METHOD NOT SUPPORTED
		012 UNKNOWN ERROR
		013 INVALID BULK ID
		014 INVALID BULK ID TERMINAL ID COMBINATION
		015 BULK PAYMENTS ARE NOT ALLOWED
		016 BULK PROCESSING IN PROGRESS

8.4 Response File Request

The Response file is a csv file containing the results of all of the transactions submitted in a bulk payment. This file is available for download in the the merchant Selfcare system. Please see Selfcare User Guide for details.

The response file request is a HTTP GET request. The test URL to submit to is:

<https://testpayments.worldnettps.com/merchant/bulkpayments/result>

The required parameters are :

Field Name	Required	Description
bulkid	Y	The bulk id supplied to merchant after submitting bulk payments file.
terminalid	Y	Terminal ID Provided by Worldnet TPS
hash	Y	An MD5 hash. See Note 1 below.

Notes:

1. The MD5 hash is generated using the following as an input string:
terminalid+bulkid+secret

If the file is still being progressed the response to this request will be error code

016 Which signifies BULK PROCESSING IN PROGRESS

8.5 Response File Format

The response data is returned in a csv file. It will contain the results of the transactions in a specified bulkid.

Field Name	Required	Description
Order ID	Y	Order ID supplied by merchant in request. (Max 12 Characters)
Approval Code	N	Will be present for a successful authorisation.
Response Code	N	A, D or R (Approved, Declined or Referral) In the case of an error there is an 3 digit numeric error code contained in this column. 100 Order Already Processed 101 System Error
Response Text	Y	Text describing state of transaction. Error message will be displayed here if an issue was encountered while processing transactions.
Date time	N	Only sent in the case of no error, same format as in request. YYYY-MM-DD:HH:mm:ss
Hash	Y	An MD5 hash. See Note 1 below.

Notes:

- The MD5 hash is generated using the following as an input string:
 TERMINALID+ORDERID+AMOUNT+DATETIME+RESPONSECODE+RESPONSETEXT+secret

Appendix A: CVV & AVS Responses

CVV results:

- M - CVV Match
- N - CVV No Match
- P - Not Processed
- S - CVV should be on the card but the merchant indicates it is not.
- U - User is unregistered

AVS results:

- A - Address matches, ZIP does not. The first five numerical characters contained in the address match with those stored at the VIC or issuer's center. However, the zip code does not match.
- E - Ineligible transaction.
- N - Neither address nor ZIP matches. Neither the first five numerical characters contained in the address match with those stored at the VIC nor issuer's center nor the zip code match.
- R - Retry (system unavailable or timed out).
- S - Card type not supported. The card type for this transaction is not supported by AVS. AVS can verify addresses for Visa cards, MasterCard, proprietary cards, and private label transactions.
- U - Address information unavailable.
- G - Address information unavailable, International - Visa Only The address information was not available at the VIC or issuer's center.
- W - Nine-digit zip match, address does not. The nine-digit Postal zip code matches that stored at the VIC or card issuer's center. However, the first five numerical characters contained in the address do not match.
- X - Exact match (nine-digit zip and address). Both the nine-digit Postal zip code as well as the first five numerical characters contained in the address match.
- Y - Address and five-digit zip match. Both the five-digit Postal zip code as well as the first five numerical characters contained in the address match.
- Z - Five-digit zip matches, address does not. The five-digit Postal zip code matches that stored at the VIC or card issuer's centre.

Glossary

AVS	Address Verification System
BIN	Bank Identification Number
CVV	Card Verification Value
eDCC	Electronic Dynamic Currency Conversion
HTML	Hypertext Mark Up Language
HTTPS	Hypertext Transfer Protocol Secure
MIS	Management Information System
TPS	Transaction Processing Services
URL	Universal Resource Locator

