



VSP Server and Direct Shared Protocols

IMPORTANT: Before reading this document, you should have read through the VSP Server or VSP Direct Protocol and Integration Guidelines that accompany it. These explain the terms used here and will give you an understanding of how the VSP Systems work.

If you are a VSP Form customer, this document does not apply to you, and you should use the VSP Admin interface to perform actions such as transaction RELEASEs or REFUNDs.



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Automating More than Payments

VSP Direct and VSP Server place you in control of your transactions. Because you will invariably have your own secure database servers and web servers on which you store details of your customers and their transactions, you may well wish to automate many of the daily procedures, such as RELEASEing and ABORTing DEFERRED transactions, requesting an AUTHORISE against an AUTHENTICATE, REPEATing payments or issuing REFUNDs to customers.

All these actions can be performed via the VSP Admin screens (which can be found at the URLs below), so it is not necessary to implement these additional parts of the VSP protocols if you do not wish to. The VSP Admin system, however, was designed for people to use and is not friendly to automated systems. If you wished to release 100 transactions per day at 11pm, it would be a chore to have to log into VSP Admin every night to do so.

Test Site VSP Admin: <https://ukvpstest.protx.com/VSPAdmin>

Live Site VSP Admin: <https://ukvps.protx.com/VSPAdmin>

The processes of RELEASEing a payment, or REFUNDing a transaction, are essentially the same as registering a VSP Server or VSP Direct payment. Your server sends an HTTPS POST containing a collection of Name=Value pairs directly to the VSP system, which validates the information and either carries out the instruction returning an **OK** status and any relevant transaction ids and authorisation codes for you to store in your database, or generates an **INVALID**, **MALFORMED**, **NOTAUTHED** or **ERROR** Status with a description of the error in the **StatusDetail** field.

Whether you use VSP Server or VSP Direct for Payment registration, all additional protocol messages are sent to the same set of services. The URLs for the system are:

VSP Simulator: <https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway?service={service}>

Test Site: <https://ukvpstest.protx.com/vspgateway/service/{service}>

Live Site: <https://ukvps.protx.com/vspgateway/service/{service}>

In each case the {service} is replaced with the name of the Service you are requesting, which is shown at the top of each section of the protocol in the Appendix.

So, for example, if you wished to VOID a payment (see Appendix A9) on the Test Server, you would retrieve the VendorTxCode, VPSTxId, SecurityKey and TxAuthNo of the payment from your database and send them as Name=Value pairs in an HTTPS POST to <https://ukvpstest.protx.com/vspgateway/service/void.vsp>, then check the RESPONSE fields for a Status of OK or examine StatusDetail to determine what went wrong.



Additional Protocol Components

Using the transaction ids from your original transactions that are held in your database, you can perform the following actions:

- **RELEASE** a DEFERRED or REPEATDEFERRED transaction. This marks such transactions as ready to be settled with your acquiring bank. Until RELEASEd no funds are taken for such transactions.
- **ABORT** a DEFERRED or REPEATDEFERRED transaction. This cancels a transaction in the DEFERRED state to ensure it can never be settled with your acquiring bank.
- **REFUND** either an entire transaction or any part of it. You can perform multiple refunds against a payment as long as the total value of those refunds does not exceed the amount of the original transaction.
- **REPEAT** or **REPEATDEFERRED** a transaction. Any authorised transaction can be used as the basis for a REPEAT. A REPEAT transaction simply uses the card that was used in the original authorised transaction, and charges it again with the Amount specified in the REPEAT. The REPEAT amount can be any amount. It does not have to match the value of the original transaction.

REPEAT effectively takes a PAYMENT from a card that has been used before, which means that a REPEAT payment is always settled with your bank the following morning. If you wish to take a DEFERRED payment using a card that has been used in a previous transaction, you should use REPEATDEFERRED instead of REPEAT. Like a DEFERRED payment, these must be RELEASEd before funds are transferred to your account.

- **VOID** an authorised transaction. If you have taken a PAYMENT or RELEASEd a DEFERRED transaction and do not wish it to be settled because the customer has cancelled their order, you can send a VOID message to prevent the transaction from ever being settled. **This only works BEFORE the transaction has been settled.** As soon as a transaction has been settled, it can no longer be VOIDed and must be REFUNDed instead.

The advantage with a VOID over a REFUND is that because the transaction is never settled, you will not be charged Merchant Fees by your bank. In a REFUND situation you will normally be charged for both the initial payment the refund.

- Take a **MANUAL** payment. MANUAL payments allow you to settle transactions with your bank that you have not authorised through the VSP Systems. Some transactions, for example high value payments, will not be authorised online, but if you call your acquiring bank as perform a Code 10 check and manual authorisation, the transaction may well be authorised and you will be given an authorisation code. You can use the MANUAL payment to submit the transaction details and authorisation code to our system for settlement with the bank.



- Request a **DIRECTREFUND** against a payment. If you wish to REFUND transactions, they must have been taken via the VSP systems in the first place. In some circumstances this is not the case. You may have taken the original payment via a PDQ machine or using a different payment processor. DIRECTREFUND is like a MANUAL payment but credits the supplied card instead of debiting it. This part of the protocol is never enabled by default because of the associated risks of fraud.
- **AUTHORISE** an AUTHENTICATED transaction. If you used a transaction type of AUTHENTICATE when you registered your transaction and received either an AUTHENTICATED or REGISTERED response, then the card details and any authentication information from the 3D-Secure process are being held a Protx for up to 90 days, awaiting an authorisation to be performed against them. Sending an AUTHORISE request does just that.

Like REFUNDS, you can perform any number of AUTHORISE requests against an AUTHENTICATED transaction so long as (i) the 90 day period has not expired (30 days for International Maestro cards) and (ii) the total amount of all authorisations does not exceed 115% of the authentication value (for International Maestro the limit is 100%).

- **CANCEL** an AUTHENTICATED transaction. If you do not wish to AUTHORISE an AUTHENTICATED or REGISTERED transaction, you can send a CANCEL message to archive it away so that it can no longer be used.

A CANCEL cannot be reversed, so only send a cancel when you are certain you no longer need the original transaction.

CANCELS happen automatically after (i) 90 days (30 days for International Maestro) or (ii) you AUTHORISE between 100% and 115% of the Authentication value.

Not all message types are available by default, and if you wish to use them, you may need to mail support@protx.com to ask for them to be activated on your account.

Additional Transaction Types and VSP Simulator

VSP Simulator can handle all the additional transaction types discussed above. It will accept PAYMENT, AUTHENTICATE and DEFERRED transactions at the registration stage, plus it has services that emulate those of the real VSP Server when you send REFUND, RELEASE, ABORT, REPEAT, AUTHORISE, CANCEL and VOID messages to it.

The additional transaction types, however, do not have a user configurable interface associated with them. By default they are all set to Automatic mode, so they will respond with an OK unless the data you send would generate a MALFORMED or INVALID response.



Appendix A – Additional Transaction Protocols

All transactions are simple synchronous HTTPS POSTs sent from a script on your servers to the VSP systems, with the same script reading the Response component of that POST to determine success or failure. These POSTs can be sent using any HTTPS compatible objects (such as cURL in PHP or the WinHTTP object on Windows platforms).

The data should be sent as URL encoded Name=Value pairs separated with & characters and sent to the VSP Server URL with a Service name set to the message type in question.

Whether you use VSP Server or VSP Direct for Payment registration, all additional protocol messages are sent to the same set of services. The URLs for the system are:

VSP Simulator: <https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway?service={service}>

Test Site: <https://ukvpstest.protx.com/vspgateway/service/{service}>

Live Site: <https://ukvps.protx.com/vspgateway/service/{service}>

In each case the {service} is replaced with the name of the Service you are requesting, which is shown at the top of each section of the protocol in this Appendix.

The pages that follow list the message types you can send and the responses from VSP Server.



A1: Releasing a DEFERRED or REPEATDEFERRED Payment

This is performed via an HTTPS POST request, sent to the Release URL service **release.vsp**. The details must be URL encoded, with Name=Value fields separated by '&' characters.

Request format

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"RELEASE"	Should be in capital letters
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by ProtX when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code of the DEFERRED payment to be RELEASED	This should be your own reference code to the original DEFERRED transaction
VPSTxId	Alphanumeric 38 characters	The VPS Transaction ID for the DEFERRED transaction.	As sent back by the VSP system when the DEFERRED transaction was registered.
SecurityKey	Alphanumeric 10 characters	Security Key for the deferred transaction	The SecurityKey of the DEFERRED payment as sent back by the VSP System when the transaction occurred.
TxAuthNo	Long Integer	Authorisation code for the deferred transaction.	The TxAuthNo of the DEFERRED payment as returned by the VSP system.
ReleaseAmount	Numeric 1.00 to 100,000.00	Amount to release	The amount of the DEFERRED transaction to release. You can only RELEASE a DEFERRED transaction once. If you wish to perform multiple partial payments, you should use the AUTHENTICATE and AUTHORISE transaction types.



A2: Protx Response to the Release POST

This is the plain text response part of the POST sent in A1. Encoding will be as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VPSProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	The current system version.
Status	Alphanumeric Max 15 characters.	<p>"OK" – Process executed without error. The DEFERRED payment was released.</p> <p>"MALFORMED" – Input message was malformed – normally will only occur during development. The StatusDetail (next field) will give more information</p> <p>"INVALID" – Unable to authenticate you or find the transaction, or the data provided is invalid. If the Deferred payment was already released, an INVALID response is returned. See StatusDetail for more information.</p> <p>"ERROR" – Only returned if there is a problem at Protx.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 char.	Human-readable text providing extra detail for the Status message.	



A3: Aborting a Deferred Payment

This is performed via an HTTPS POST sent to the Abort URL service **abort.vsp**. The details must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Values	Comments
VPSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"ABORT"	Should be in capital letters
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by ProtX when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code of the DEFERRED payment to be ABORTED	This should be your own reference code to the original DEFERRED transaction
VPSTxId	Alphanumeric 38 characters	The VPS Transaction ID for the DEFERRED transaction.	As sent back by the VSP system when the DEFERRED transaction was registered.
SecurityKey	Alphanumeric 10 characters	Security Key for the DEFERRED transaction	The SecurityKey of the DEFERRED payment as sent back by the VSP System when the transaction occurred.
TxAuthNo	Long Integer	Authorisation code for the deferred transaction.	The TxAuthNo of the DEFERRED payment as returned by the VSP system.

A4: ProtX Response to the Abort POST

This is the plain text response part of the POST sent in A3. Encoding will be as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VPSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	The current system version.
Status	Alphanumeric Max 15 characters.	<p>"OK" – Process executed without error. The DEFERRED payment was aborted.</p> <p>"MALFORMED" – Input message was malformed – normally will only occur during development. The StatusDetail (next field) will give more information</p> <p>"INVALID" – Unable to authenticate you or find the transaction, or the data provided is invalid. If the Deferred payment was already released, an INVALID response is returned. See StatusDetail for more information.</p> <p>"ERROR" – Only returned if there is a problem at ProtX.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify ProtX if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 char.	Human-readable text providing extra detail for the Status message.	



A5: Refund registration

Refunds are performed via a HTTPS POST to the Protx Refund URL service **refund.vsp**. The request must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Value	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"REFUND"	Transaction type. Should be in Capital letters.
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by Protx when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code	This should be your own reference code to this REFUND transaction. Your servers should provide a completely unique VendorTxCode for each transaction.
Amount	Numeric 1.00 to 100,000.00	Amount to Refund	IMPORTANT NOTE: You can make multiple refunds against a single transaction but the total value of all refunds CANNOT exceed the amount of the original transaction.
Currency	Alphanumeric 3 characters	Three-letter currency code to ISO 4217 e.g: "GBP", "EUR" and "USD"	The currency must be supported by one of your VSP merchant accounts or the transaction will be rejected. It must also match the currency of the transaction being refunded.
Description	Alphanumeric 100 characters	Free text description of reason for Refund	Stored against the refund for your future reference via the VSP Admin screens.
RelatedVPSTxId	Alphanumeric 38 characters	Transaction ID the original Transaction	VPSTxId of the original Transaction against which the Refund is required.
RelatedVendorTx Code (all one word)	Alphanumeric Max 40 characters	Vendor Transaction Code original transaction	VendorTxCode of the original Transaction being refunded
RelatedSecurityKey	Alphanumeric 10 characters	Security Key for the original transaction	The SecurityKey of the original transaction sent back by the VSP System when the transaction was registered.
RelatedTxAuthNo	Long Integer	Authorisation code for the original transaction.	The TxAuthNo of the original transaction as returned by the VSP system when it was authorised.



A6: Refund results

This is the response part of the Refund POST originated by A5. Encoding is as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	Version number of the protocol of the system. This release will return "2.23"	This will match the protocol version supplied in A5.
Status	Alphanumeric Max 15 characters.	<p>"OK" – The refund was authorised by the bank and funds will be returned to the customer.</p> <p>"NOTAUTHED" – The refund was not authorised by the acquiring bank. No funds will be returned to the card</p> <p>"MALFORMED" – Input message was missing fields or badly formatted – normally will only occur during development and vendor integration.</p> <p>"INVALID" – Transaction was not registered because although the POST format was valid, some information supplied was invalid. E.g. incorrect vendor name or currency.</p> <p>"ERROR" – Only returned if there is a problem at Protx.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 characters	Human-readable text providing extra detail for the Status message.	Always check StatusDetail is the Status is not OK
VPSTxId	Alphanumeric 38 characters	Protx ID to uniquely identify the Transaction on our system.	Only present if Status is OK .
TxAuthNo	Numeric Long integer	The Protx authorisation code (also called VPSAuthCode) for this transaction.	Only present if Status is OK .



A7: Repeat Payment Registration

Repeat Payments are performed via a HTTPS POST to the Repeat Payment URL service **repeat.vsp**. The request must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Value	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"REPEAT" or "REPEATDEFERRED"	Transaction type. Should be in Capital letters.
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by Protix when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code	This should be your own reference code to this REPEAT transaction. Your servers should provide a completely unique VendorTxCode for each transaction.
Amount	Numeric 1.00 to 100,000.00	Amount of the REPEAT payment	You can take a REPEAT transaction for any amount, irrespective of the amount of the original transaction.
Currency	Alphanumeric 3 characters	Three-letter currency code to ISO 4217 e.g: "GBP", "EUR" and "USD"	The currency must be supported by one of your VSP merchant accounts or the transaction will be rejected. You can REPEAT any currency that is active on your account, irrespective of the currency of the original transaction.
Description	Alphanumeric 100 characters	Free text description of the Repeat payment	Any information you wish to supply to further identify this REPEAT payment.
RelatedVPSTxId	Alphanumeric 38 characters	Transaction ID the original Transaction	VPSTxId of the transaction against which the Repeat is required.
RelatedVendorTx Code (all one word)	Alphanumeric Max 40 characters	Vendor Transaction Code original transaction	VendorTxCode for the original transaction to Repeat against
RelatedSecurityKey	Alphanumeric 10 characters	Security Key for the original transaction	The SecurityKey of the original transaction sent back by the VSP System when the transaction was registered.
RelatedTxAuthNo	Long Integer	Authorisation code for the original transaction.	The TxAuthNo of the original transaction as returned by the VSP system when it was authorised.



A8: Repeat Payment Results

This is the response part of the Repeat POST originated by A7. Encoding is as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	Version number of the protocol of the system. This release will return "2.23"	This will match the protocol version supplied in A7.
Status	Alphanumeric Max 15 characters.	<p>"OK" – The Repeat payment was authorised by the bank and funds will be charged to the customer's card.</p> <p>"NOTAUTHED" – The Repeat was not authorised by the acquiring bank. No funds will be charged to the card.</p> <p>"MALFORMED" – Input message was missing fields or badly formatted – normally will only occur during development and vendor integration.</p> <p>"INVALID" – Transaction was not registered because although the POST format was valid, some information supplied was invalid. E.g. incorrect vendor name or currency.</p> <p>"ERROR" – Only returned if there is a problem at Protx.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 characters	Human-readable text providing extra detail for the Status message.	Always check StatusDetail is the Status is not OK
VPSTxId	Alphanumeric 38 characters	Protx ID to uniquely identify the Repeat Transaction on our system.	Only present if Status is OK .
TxAuthNo	Numeric Long integer	The Protx authorisation code (also called VPSAuthCode) for this Repeat.	Only present if Status is OK .
SecurityKey	Alphanumeric 10 characters	Security key for this Repeat payment.	Should be kept secret from the Customer. Only present if Status is OK .



A9: Voiding a Transaction

Voids are performed via HTTPS POSTs sent to the Void URL service **void.vsp**. The details must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Values	Comments
VPSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"VOID"	Should be in capital letters
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by Protx when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code of the original transaction to be VOIDed	This should be your own reference code to the original transaction
VPSTxId	Alphanumeric 38 characters	The VPS Transaction ID for the transaction being VOIDed.	As sent back by the VSP system when the original transaction was registered.
SecurityKey	Alphanumeric 10 characters	Security Key of the transaction being VOIDed	The SecurityKey of the original transaction.
TxAuthNo	Long Integer	Authorisation code of the transaction being VOIDed.	The TxAuthNo of the original transaction as returned by the VSP system.

A10: Void transaction results

This is the plain text response part of the POST sent in A9. Encoding will be as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VPSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	The current system version.
Status	Alphanumeric Max 15 characters.	<p>"OK" – Process executed without error. The transaction was VOIDed successfully.</p> <p>"MALFORMED" – Input message was malformed – normally will only occur during development. The StatusDetail (next field) will give more information</p> <p>"INVALID" – Unable to authenticate you or find the transaction, or the data provided is invalid. See StatusDetail for more information.</p> <p>"ERROR" – Only returned if there is a problem at Protx.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 char.	Human-readable text providing extra detail for the Status message.	



A11: Manual Payment Transaction registration

This is performed via a HTTPS POST sent to the Manual payment service **manualpayment.vsp**. The details should be URL encoded Name=Value fields separated by '&' characters.

Request format (continued overleaf)

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"MANUAL"	Should be in capital letters.
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by ProtX when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code	This should be your own reference code to the transaction. Your servers should provide a completely unique VendorTxCode for each transaction.
Amount	Numeric. 1.00 to 100,000.00	Amount for the Transaction containing minor digits formatted to 2 decimal places where appropriate.	Must be positive and numeric, and may include a decimal place where appropriate. Minor digits should be formatted to two decimal places. e.g. 5.10, or 3.29. Values such as 3.235 and 2.3 will be rejected.
Currency	Alphanumeric 3 characters	Three-letter currency code to ISO 4217 Examples: "GBP", "EUR" and "USD"	The currency must be supported by one of your VSP merchant accounts or the transaction will be rejected.
Description	Alphanumeric Max 100 characters	Free text description of goods or services being purchased	The description of good purchased is displayed in the Administrative screens for your future reference.
CardHolder	Alphanumeric Max 50 characters	The card holder's name	This should be the name displayed on the card.
CardNumber	Alphanumeric Max 20 characters	The credit or debit card number with no spaces.	The full card number is required.
Optional: StartDate	Numeric 4 characters	The Start date (required for some Maestro, Solo and Amex) in MMYY format	The start date MUST be in MMY format i.e. 0699 for June 1999. No / or – characters should be included.
ExpiryDate	Numeric 4 characters	The Expiry date (required for ALL cards) in MMYY format	The expiry date MUST be in MMY format i.e. 1206 for December 2006. No / or – characters should be included.
Optional: IssueNumber	Numeric Max 2 characters	The card Issue Number (some Maestro and Solo cards only)	The issue number MUST be entered EXACTLY as it appears on the card. e.g. some cards have issue number "4" others have "04".
Optional: CV2	Numeric Max 4 characters	The extra security 3 digits on the signature strip of the card, or the extra 4 digits on the front for American Express Cards	NB: If AVS/CV2 is ON for your account this field becomes compulsory.



Request format continued (continued overleaf)

CardType	Alphanumeric Max 15 characters	"VISA", "MC", "DELTA", "SOLO", "MAESTRO", "UKE", "AMEX", "DC" or "JCB" NB: "SWITCH" will still be accepted but use "MAESTRO"	MC is MasterCard, UKE is Visa Electron. AMEX and DC (DINERS) can only be accepted if you have additional merchant accounts with those acquirers.
Optional: AuthCode	Alphanumeric Max 15 characters	The manual Authorisation Code obtained from your acquirer during Code 10 checks, for example.	This field is optional since Auth Codes may not be required for transactions below the floor limit on your account. Check with your acquirer.
Optional: BillingAddress	Alphanumeric Max 200 characters	The Card Holder's Billing Address (the address at which the card is registered) WITHOUT the Post/Zip code. (previous called Address)	NB: If AVS/CV2 is ON for your account this field becomes compulsory. Ensure the Post code is not included or Address Verification checks will fail.
Optional: BillingPostCode	Alphanumeric Max 10 characters	The Post/Zip code of the Card Holder's Billing Address (the address at which the card is registered). Previous called PostCode)	NB: If AVS/CV2 is ON for your account this field becomes compulsory.
Optional: DeliveryAddress	Alphanumeric Max 200 characters	Free format field for the customer's Delivery Address without the Post/Zip code	The information, whilst not used for authorisation purposes, IS used by our fraud screening partner
Optional: DeliveryPostCode	Alphanumeric Max 10 characters	The Post code or Zip code of the customer's delivery address	The information, whilst not used for authorisation purposes, IS used by our fraud screening partner
Optional: CustomerName	Alphanumeric Max 100 characters	The name of the customer.	This is the name of customer to whom the goods are ordered. This field is provided because it is not necessarily the same as the CardHolder name above (which is compulsory).
Optional: ContactNumber	Alphanumeric Max 20 characters	The telephone number on which to contact the customer.	The information, whilst not used for authorisation purposes, IS used by our fraud screening partner. You should request a land line where possible.
Optional: ContactFax	Alphanumeric Max 20 characters	The fax number on which to contact	The information is not used in customer validation at present and is available for reporting purposes only.
Optional: CustomerEMail	Alphanumeric Max 255 characters	The customer's e-mail address	The current version of VSP Server does not send confirmation e-mails to the customer (although future version will). This field is provided for your records only.
Optional: Basket	Alphanumeric Max 7500 characters	See the main Protocol documents for the format of the Basket field	This field can use to supply details of the customer's order.



Optional: GiftAidPayment	Flag	0 = This transaction is not a Gift Aid charitable donation(default) 1 = This payment is a Gift Aid charitable donation and the customer has AGREED to donate the tax.	Only of use if your vendor account is Gift Aid enabled. Setting this field means the customer has ticked a box on your site to indicate they wish to donate the tax. See Gift Aid rules for more details.
Optional: AccountType	Alphanumeric 1 character	E = Use the e-commerce merchant account. (default) C = Use the continuous authority merchant account (if present). M = Use the mail order, telephone order account (if present).	This optional flag is used to tell the VSP System which merchant account to use for this transaction in situations where more than one type of merchant account is set up for your ProtX vendor account. If omitted, the system will use E, then M then C by default.

A12: Response to the Manual Payment POST

This is the plain text response part of the POST originated by your servers in A11. Encoding will be as Name=Value fields separated by return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VPSPProtocol	Alphanumeric. Fixed 4 characters.	Version number of the protocol of the system. This release will return "2.23"	Matches the protocol supplied in A11
Status	Alphanumeric Max 15 characters.	"OK" – The transaction was accepted by VSP Server and will be settled in the next batch. "MALFORMED" – Input message was missing fields or badly formatted – normally will only occur during development and vendor integration. "INVALID" – Transaction was not registered because although the POST format was valid, some information supplied was invalid. E.g. incorrect vendor name or currency. "ERROR" – Only returned if there is a problem at ProtX.	If the status is not OK, the StatusDetail field will give more information about the problem. Please notify ProtX if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.
StatusDetail	Alphanumeric Max 255 characters	Human-readable text providing extra detail for the Status message.	Always check StatusDetail is the Status is not OK
VPSTxId	Alphanumeric 38 characters	ProtX ID to uniquely identify the Transaction on our system.	Only present if Status is OK .
TxAuthNo	Numeric Long integer	The ProtX authorisation code (also called VPSPAuthCode) for this transaction.	Only present if Status is OK . NB: This is NOT the same as the AuthCode you provide above. This is a ProtX generated code.
SecurityKey	Alphanumeric 10 characters	Security key for this Manual Transaction.	Should be kept secret from the Customer. Only present if Status is OK .



A13: Direct Refund Registration

This is performed via a HTTPS POST sent to the Direct Refund service **directrefund.vsp**. The details should be URL encoded Name=Value fields separated by '&' characters.

Request format (continued overleaf)

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"DIRECTREFUND"	Should be in capital letters.
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by ProtX when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code	This should be your own reference code to the transaction. Your servers should provide a completely unique VendorTxCode for each transaction.
Amount	Numeric. 1.00 to 100,000.00	Amount for the Transaction containing minor digits formatted to 2 decimal places where appropriate.	Must be positive and numeric, and may include a decimal place where appropriate. Minor digits should be formatted to two decimal places. e.g. 5.10, or 3.29. Values such as 3.235 and 2.3 will be rejected.
Currency	Alphanumeric 3 characters	Three-letter currency code to ISO 4217 Examples: "GBP", "EUR" and "USD"	The currency must be supported by one of your VSP merchant accounts or the transaction will be rejected.
Description	Alphanumeric Max 100 characters	Free text description of the reason for the refund.	The description of good purchased is displayed in the Administrative screens for your future reference.
CardHolder	Alphanumeric Max 50 characters	The card holder's name	This should be the name displayed on the card.
CardNumber	Alphanumeric Max 20 characters	The credit or debit card number with no spaces.	The full card number is required.
Optional: StartDate	Numeric 4 characters	The Start date (required for some Maestro, Solo and Amex) in MMYY format	The start date MUST be in MMYY format i.e. 0699 for June 1999. No / or – characters should be included.
ExpiryDate	Numeric 4 characters	The Expiry date (required for ALL cards) in MMYY format	The expiry date MUST be in MMYY format i.e. 1206 for December 2006. No / or – characters should be included.
Optional: IssueNumber	Numeric Max 2 characters	The card Issue Number (some Maestro and Solo cards only)	The issue number MUST be entered EXACTLY as it appears on the card. e.g. some cards have issue number "4" others have "04".



Request format continued

CardType	Alphanumeric Max 15 characters	"VISA", "MC", "DELTA", "SOLO", "MAESTRO", "UKE", "AMEX", "DC" or "JCB" NB: "SWITCH" is still accepted by you should use "MAESTRO"	MC is MasterCard, UKE is Visa Electron. AMEX and DC (DINERS) can only be accepted if you have additional merchant accounts with those acquirers.
Optional: AccountType	Alphanumeric 1 character	E = Use the e-commerce merchant account. (default) C = Use the continuous authority merchant account (if present). M = Use the mail order, telephone order account (if present).	This optional flag is used to tell the VSP System which merchant account to use for this transaction in situations where more than one type of merchant account is set up for your Protx vendor account. If omitted, the system will use E, then M then C by default.

A14: Direct Refund results

This is the response part of the Refund POST originated by A13. Encoding is as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	Version number of the protocol of the system. This release will return "2.23"	This will match the protocol version supplied in A13.
Status	Alphanumeric Max 15 characters.	"OK" – The refund was accepted by Protx and funds will be returned to the customer. "NOTAUTHED" – The refund was not accepted by Protx. No funds will be returned to the card "MALFORMED" – Input message was missing fields or badly formatted – normally will only occur during development and vendor integration. "INVALID" – Transaction was not registered because although the POST format was valid, some information supplied was invalid. E.g. incorrect vendor name or currency. "ERROR" – Only returned if there is a problem at Protx.	If the status is not OK, the StatusDetail field will give more information about the problem. Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.
StatusDetail	Alphanumeric Max 255 characters	Human-readable text providing extra detail for the Status message.	Always check StatusDetail is the Status is not OK
VPSTxId	Alphanumeric 38 characters	Protx ID to uniquely identify the Transaction on our system.	Only present if Status is OK .
TxAuthNo	Numeric Long integer	The Protx authorisation code (also called VPSAuthCode) for this transaction.	Only present if Status is OK .



A15: Authorising an Authenticated/Registered Transaction

Authorise requests are performed via a HTTPS POST to the Authorise URL service **authorise.vsp**. The request must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Value	Comments
VPSProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"AUTHORISE"	Transaction type. Should be in Capital letters.
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by Protix when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code	This should be your own reference code to this Authorisation. Your servers should provide a completely unique VendorTxCode for each transaction.
Amount	Numeric 1.00 to 100,000.00	Amount of the Authorisation	IMPORTANT NOTE: You can make multiple Authorisations against a single Authentication but the total value of all refunds CANNOT exceed 115% of the amount of the original transaction (100% for non-UK Maestro cards)
Description	Alphanumeric 100 characters	Free text description of the Repeat payment	Any information you wish to supply to further identify this REPEAT payment.
RelatedVPSTxId	Alphanumeric 38 characters	Transaction ID of the Authenticate Transaction	VPSTxId of the authenticate transaction against which the authorisation is required.
RelatedVendorTx Code (all one word)	Alphanumeric Max 40 characters	Vendor Transaction Code of the Authenticate Transaction	VendorTxCode of the authenticate transaction against which the authorisation is required
RelatedSecurityKey	Alphanumeric 10 characters	Security Key of the Authenticate Transaction	The SecurityKey of the authenticate transaction sent back by the VSP System when the transaction was registered.
Optional: ApplyAVSCV2	Flag	0 = If AVS/CV2 enabled then check them. If rules apply, use rules. (default) 1 = Force AVS/CV2 checks even if not enabled for the account. If rules apply, use rules. 2 = Force NO AVS/CV2 checks even if enabled on account. 3 = Force AVS/CV2 checks even if not enabled for the account but DON'T apply any rules.	Using this flag you can fine tune the AVS/CV2 checks and rule set you've defined at a transaction level. This is useful in circumstances where direct and trusted customer contact has been established and you wish to override the default security checks.



A16: Authorisation Results

This is the response part of the Repeat POST originated by A15. Encoding is as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	Version number of the protocol of the system. This release will return "2.23"	This will match the protocol version supplied in A15.
Status	Alphanumeric Max 15 characters.	"OK" – The Authorisation was authorised by the bank and funds will be charged to the customer's card. "NOTAUTHED" – The Authorisation was not authorised by the acquiring bank. No funds will be charged to the card. "MALFORMED" – Input message was missing fields or badly formatted – normally will only occur during development and vendor integration. "INVALID" – Transaction was not registered because although the POST format was valid, some information supplied was invalid. E.g. incorrect vendor name or currency. "ERROR" – Only returned if there is a problem at Protx.	If the status is not OK, the StatusDetail field will give more information about the problem. Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.
StatusDetail	Alphanumeric Max 255 characters	Human-readable text providing extra detail for the Status message.	Always check StatusDetail is the Status is not OK
VPSTxId	Alphanumeric 38 characters	Protx ID to uniquely identify the Authorise Transaction on our system.	Only present if Status is OK .
TxAuthNo	Numeric Long integer	The Protx authorisation code (also called VPSEAuthCode) for this Authorise.	Only present if Status is OK .
SecurityKey	Alphanumeric 10 characters	Security key for this Authorisation.	Should be kept secret from the Customer. Only present if Status is OK .
AVSCV2	Alphanumeric Max 50 characters	Response from AVS and CV2 checks. Will be one of the following: "ALL MATCH" , "SECURITY CODE MATCH ONLY" , "ADDRESS MATCH ONLY" , "NO DATA MATCHES" or "DATA NOT CHECKED" .	Provided for Vendor info and backward compatibility with the banks. Rules set up at the VSP server will accept or reject the transaction based on these values. More detailed results are split out in the next three fields. Not present if the Status is AUTHENTICATED or REGISTERED .
AddressResult	Alphanumeric Max 20 characters	"NOTPROVIDED" , "NOTCHECKED" , "MATCHED" , "NOTMATCHED"	The specific result of the checks on the cardholder's address numeric from the AVS/CV2 checks. Not present if the Status is AUTHENTICATED or REGISTERED
PostCodeResult	Alphanumeric Max 20 characters	"NOTPROVIDED" , "NOTCHECKED" , "MATCHED" , "NOTMATCHED"	The specific result of the checks on the cardholder's Post Code from the AVS/CV2 checks. Not present if the Status is AUTHENTICATED or REGISTERED
CV2Result	Alphanumeric Max 20 characters	"NOTPROVIDED" , "NOTCHECKED" , "MATCHED" , "NOTMATCHED"	The specific result of the checks on the cardholder's CV2 code from the AVS/CV2 checks. Not present if the Status is AUTHENTICATED or REGISTERED



A17: Cancelling an Authenticated/Registered Transaction

Cancellations are performed via HTTPS POSTs sent to the Cancel URL service **cancel.vsp**. The details must be URL encoded, with Name=Value fields separated by '&' characters.

Request format:

Name	Values	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	Default or incorrect value is taken to be 2.23
TxType	Alphanumeric Max 15 characters.	"CANCEL"	Should be in capital letters
Vendor	Alphanumeric Max 15 characters.	Vendor Login Name	Used to authenticate your site. This should contain the VSP Vendor Name supplied by Protx when your account was created.
VendorTxCode	Alphanumeric Max 40 characters	Vendor Transaction Code of the original transaction to be CANCELED	This should be your own reference code to the original transaction
VPSTxId	Alphanumeric 38 characters	The VPS Transaction ID for the transaction being CANCELED.	As sent back by the VSP system when the original transaction was registered.
SecurityKey	Alphanumeric 10 characters	Security Key of the transaction being CANCELED	The SecurityKey of the original transaction.

A18: Cancel Authentication results

This is the plain text response part of the POST sent in A17. Encoding will be as Name=Value fields separated by carriage-return-linefeeds (CRLF).

Response format:

Name	Format	Values	Comments
VSPProtocol	Alphanumeric. Fixed 4 characters.	"2.23" in this release	The current system version.
Status	Alphanumeric Max 15 characters.	<p>"OK" – Process executed without error. The transaction was CANCELED successfully.</p> <p>"MALFORMED" – Input message was malformed – normally will only occur during development. The StatusDetail (next field) will give more information</p> <p>"INVALID" – Unable to authenticate you or find the transaction, or the data provided is invalid. See StatusDetail for more information.</p> <p>"ERROR" – Only returned if there is a problem at Protx.</p>	<p>If the status is not OK, the StatusDetail field will give more information about the problem.</p> <p>Please notify Protx if a Status report of ERROR is seen, together with your VendorTxCode and the StatusDetail text.</p>
StatusDetail	Alphanumeric Max 255 char.	Human-readable text providing extra detail for the Status message.	



A19: VSP System Full URL Summary

The table below shows the complete web addresses to which you send the messages detailed above.

RELEASE	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorReleaseTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/release.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/release.vsp

ABORT	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorAbortTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/abort.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/abort.vsp

REFUND	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorRefundTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/refund.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/refund.vsp

REPEAT	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorRepeatTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/repeat.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/repeat.vsp

VOID	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorVoidTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/void.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/void.vsp

MANUAL	
VSP Simulator:	Not supported in VSP Simulator at present
TEST System:	https://ukvpstest.protx.com/vspgateway/service/manualpayment.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/manualpayment.vsp

DIRECTREFUND	
VSP Simulator:	Not supported in VSP Simulator at present
TEST System:	https://ukvpstest.protx.com/vspgateway/service/directrefund.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/directrefund.vsp

AUTHORISE	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorAuthoriseTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/authorise.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/authorise.vsp

CANCEL	
VSP Simulator:	https://ukvpstest.protx.com/VSPSimulator/VSPServerGateway.asp?service=VendorCancelTx
TEST System:	https://ukvpstest.protx.com/vspgateway/service/cancel.vsp
Live System:	https://ukvps.protx.com/vspgateway/service/cancel.vsp

Please ensure that you use allow Ports 80 and 443 in order to communicate with our servers (on Simulator/Test/Live).