



Gateway Web Service Sage Payment Solutions

June 2015

Table of contents

Overview	7
Authentication header	7
Example	7
Troubleshooting	8
Other headers	8
Healthcare transactions	9
POST	9
URL	9
Field definitions	10
Field definitions	12
DELETE	12
URL	12
DELETE Response	12
Cash transactions	13
POST	13
URL	13
Supported HTTP VERBS	13
Field definitions	14
Field definitions	15
GET	15
URL	15
Field definitions	16
DELETE	16
URL	16
DELETE Response	16
Retail transactions	17
POST	17
URL	17
Field definitions	17
Field definitions	19
DELETE	20
URL	20
DELETE Response	20
PUT	20
URL	20
PUT Response	20
MOTO/eCommerce transactions	22
POST	22
URL	22
Field definitions	23
Field definitions	24
PUT	25

URL	25
PUT Response	25
Field definitions	25
DELETE	26
URL	26
DELETE Response	26
 Credit card refund transactions	 27
POST	27
URL	27
Field definitions	27
Field definitions	28
DELETE	28
URL	28
DELETE Response	28
 Credit card settlements	 29
POST	29
URL	29
Field definitions	29
Field definitions	30
GET	30
URL	30
Field definitions	31
GET	31
URL	31
Field definitions	34
 Credit card batch	 35
GET	35
URL	35
Field definitions	37
 Vault credit card tokens	 38
POST	38
URL	38
Field definitions	38
Field definitions	38
PUT	39
URL	39
Field definitions	39
Field definitions	40
 Transaction image	 41
POST	41
URL	41
Field definitions	41
POST Response	41

GET	41
URL	41
Account service	43
GET	43
URL	43
Field definitions	44
Credit card BIN	45
GET	45
URL	45
CreditCardBinResponse field definitions	45
ARDF field definitions	45
GCMCResponse field definitions	46
Account updater	47
GET	47
URL	47
Field definitions	47
Credit card repayment	48
GET	48
URL	48
CreditCardRepayment field definitions	48
Virtual check repayment	50
GET	50
URL	50
VirtualCheckRepayment field definitions	50
Order detail	52
POST	52
URLs	52
OrderRequest field definitions	52
InvoiceEmail field definitions	53
OrderItem field definitions	53
POST Response	53
GET	53
URLs	53
OrderResponse field definitions	55
InvoiceEmail field definitions	55
OrderItem field definitions	55
Merchant details	56
GET	56
URL	56
Field definitions	57

Settled batch summary	58
Get	58
URL	58
Parameter definitions	58
Field definitions	59
 Transaction search	 60
POST	60
URL	60
Field definitions	60
Field descriptions	62
 Bank card transaction detail	 64
GET	64
URL	64
Field definitions	65
 Virtual check transaction detail	 67
GET	67
URL	67
Field definitions	68
 Transaction volume	 70
GET	70
URL	70
Parameter definitions	70
Field definitions	70
 Virtual check rejects	 71
GET	71
URL	71
Parameter definitions	71
Field definitions	72
 HMAC	 74
POST	74
URL	74
Field definitions	74
Field definitions	75
 XML complex types	 76
AddressInfo	76
Field definitions	76
 VaultTransactionRequest	 77
Field definitions	77
VaultTransactionResponse	77
Field definitions	77

GatewayTransactionResponseToken	78
Field definitions	78
Data ID listing	78
CreditCardTransaction	79
Field definitions	80
CashTransaction	82
Field definitions	82
AccountUpdaterVaultResult	84
Field definitions	84
Appendix A	85
Table 1.1	85
Table 1.2	86

Overview

The Gateway Web Services are designed to support Healthcare and Retail transaction processing.

Authentication header

Every web request made to the web service will require an Authentication request header. This header value is made up of your M_ID and a HMAC of the request being made. The HMAC is a specific construction for calculating a message authentication code (MAC) involving a cryptographic hash function in combination with a secret cryptographic key. The result should be base 64 encoded for HTTP transport. The secret cryptographic key is your M_KEY.

$$\text{HMAC} = \text{base64encode}(H(K, m))$$

H = HMAC SHA-1 hash algorithm

K = M_KEY

m = The combined request data, based on the HTTP verb used.

HTTP Verb	m
GET	"GET" + URL
POST	"POST" + URL + Message Body
PUT	"PUT" + URL + Message Body
DELETE	"DELETE" + URL

***The URL should be all lower case when creating the HMAC.**

Example

Below is an example of an HTTP POST with the Authentication request header. The calculated HMAC value is in red.

HTTP POST with the Authentication request header

```
POST /web_services/gateway/api/healthcaretransactions HTTP/1.1
Host: www.sagepayments.net
Content-Type: application/xml; charset=utf-8
Content-Length: 218
Accept: application/xml
Authentication: 123456789012:1ropGMzgNaomkwam+lNzYLH8rds=

<?xml version="1.0" encoding="utf-8"?><HealthcareTransactionRequest
xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"></Healthc
areTransactionRequest>
```

Upon inspection you will notice that the M_KEY value is not disclosed in the communication. The M_KEY is a private key only known to you and the Gateway Web Service.

M_KEY = ABCDEF123456

M_ID = 123456789012

```
HMAC = base64encode( hmacsha1( "ABCDEF123456" , "POST" +  
"https://gateway.sagepayments.net/web_services/gateway/api/healthcaretransactions" +  
"<?xml version='1.0' encoding='utf-8'?><HealthcareTransactionRequest  
xmlns:i='http://www.w3.org/2001/XMLSchema-instance'  
xmlns='http://schemas.datacontract.org/2004/07/wapiGateway.Models'></HealthcareTransactio  
nRequest>" ) )
```

Troubleshooting

If you are having trouble calculating the HMAC value there is a [HMAC](#) web service call you can use during your development process to confirm you are correctly calculating the HMAC. However, this should NOT be used in production to calculate the HMAC value.

HMAC C# sample .Net 4.0

```
using (HMACSHA1 hmac = new  
HMACSHA1(System.Text.UTF8Encoding.UTF8.GetBytes(K)) )  
{  
    string result =  
Convert.ToBase64String(hmac.ComputeHash(System.Text.UTF8Encoding.UTF8.GetByt  
es(m)) );  
}
```

Other headers

The following is a listing of other request headers to be used with the web service.

Header	Description
ContentType	The content type of the message body "application/xml" should be used with for POST and PUT operations.
ContentLength	This is the length of the message body and is required for POST and PUT operations.
Accept	This defines the content type your application can accept, "application/xml" should be used.

Healthcare transactions

A healthcare transaction requires the use of a valid FSA card. The response data will indicate if the card used qualified for FSA processing. Healthcare data will be ignored if a card does not qualify as a valid FSA card. The FSA qualification does affect the Approval/Decline of a transaction. It is up to the POS to determine if a non-qualified FSA transaction should be honored.

POST

Creates a new healthcare transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/healthcaretransactions

POST Request Message Body - HealthcareTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<HealthcareTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <C_ADDRESS>string</C_ADDRESS>
  <C_CARDNUMBER>string</C_CARDNUMBER>
  <C_CITY>string</C_CITY>
  <C_COUNTRY>string</C_COUNTRY>
  <C_EXP>string</C_EXP>
  <C_NAME>string</C_NAME>
  <C_STATE>string</C_STATE>
  <C_ZIP>string</C_ZIP>
  <T_AMT>0</T_AMT>
  <T_APPLICATION_ID>string</T_APPLICATION_ID>
  <T_AUTH>string</T_AUTH>
  <T_CARD_PRESENT>true</T_CARD_PRESENT>
  <T_CLINIC_AMT>0</T_CLINIC_AMT>
  <T_CODE>0</T_CODE>
  <T_CVV>0</T_CVV>
  <T_DENTAL_AMT>0</T_DENTAL_AMT>
  <T_DEVICE_ID>string</T_DEVICE_ID>
  <T_HEALTHCARE_AMT>0</T_HEALTHCARE_AMT>
  <T_IIAS_VERIFICATION>0</T_IIAS_VERIFICATION>
  <T_PARTIAL_AUTH>true</T_PARTIAL_AUTH>
  <T_PRESCRIPTION_AMT>0</T_PRESCRIPTION_AMT>
  <T_TAX>0</T_TAX>
  <T_TERMINAL_NUMBER>string</T_TERMINAL_NUMBER>
  <T_TRACKDATA>string</T_TRACKDATA>
  <T_TRACKDATA_FORMAT>0</T_TRACKDATA_FORMAT>
  <T_UTI>string</T_UTI>
  <T_VISION_AMT>0</T_VISION_AMT>
  <VaultTransactionRequest>
    <RequestType>READ</RequestType>
    <Token>string</Token>
  </VaultTransactionRequest>
</HealthcareTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
C_CARDNUMBER	string	The card number, used for manually keyed transactions.	Yes*
C_EXP	string	The card expiration date MMY, used for manually keyed transactions.	Yes*
T_AMT	decimal	The total amount of the transaction.	Yes
T_CODE	integer	The transaction code to be used: 1 = Sale, 3 = Yes* Force	
T_CVV	string	The card verification value read from the from physical card	
T_AUTH	string	The 6 character authorization code for use withNo Force transaction code.	
T_TRACKDATA	string	The Track 1 or Track 2 magnetic strip data obtained from a card reader device.	Yes*
T_TRACKDATA_FORMAT	integer	The format of the track data: 0 = Clear Text, 1 = Magtek Encrypted	Yes*
T_TAX	decimal	The total tax amount for the transaction.	No
T_CARD_PRESENT	boolean	Used with manually keyed transactions: True =No the card was present but could not be read by a card reader, False = the card was not present	
T_PARTIAL_AUTH	boolean	Used to indicate the POS capabilities regarding Partial Authorization: True = POS supports partial authorizations, False = POS does not support partial authorizations	No
T_HEALTHCARD_AMT	decimal	The total amount of qualified healthcare for the transaction	No
T_PERSCRIPTION_AMT	decimal	The amount paid towards prescriptions	No
T_VISION_AMT	decimal	The amount paid towards vision	No
T_CLINIC_AMT	decimal	The amount paid towards other health care	No
T_DENTAL_AMT	decimal	The amount paid towards dental	No
T_IAS_VERIFICATION	integer	Identifies if the purchase items were verified against an Inventory Information Approval System (IIAS): 0 = Did not verify, 1 = Verified, 2 = Exempt based on 90 percent rule	No
C_ADDRESS	string	The billing house number and street. Used with manually keyed transactions for AVS.	Yes*
C_ZIP	string	The billing zip / postal code. Used with manually keyed transactions for AVS.	Yes*
T_APPLICATION_ID	string	This is used to identify your software solution. You need to apply for a value.	Yes

Name	Data type	Description	Required
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No
T_UTI	string	A unique transaction identifier, this field is used for communication protocol purposes. The value provided is echo'd in the response.	No
VaultTransactionRequest	complexType	Use to perform Vault operations during the transaction. See section VaultTransactionRequest	No
C_NAME	string	Cardholder name	No
C_CITY	string	Billing city	No
C_STATE	string	Billing state	No

*** Fields requirements are based on manually keyed versus swiped mode of entry, AVS data is recommended for manually key transactions.**

POST Response Message Body - HealthcareTransactionResponse

```
<?xml version="1.0" encoding="utf-8"?>
<HealthcareTransactionResponse xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Indicator>A</Indicator>
  <Code>123456</Code>
  <Message>APPROVED 123456</Message>
  <NetworkId>00</NetworkId>
  <RiskCode>00</RiskCode>
  <Reference>A1234567890</Reference>
  <OrderNumber>My Order Number</OrderNumber>
  <ResponseTokens>
    <GatewayTransactionResponseToken>
      <DataId>FSA </DataId>
      <Value>1</Value>
    </GatewayTransactionResponseToken>
    <GatewayTransactionResponseToken>
      <DataId>PAA </DataId>
      <Value>2.00</Value>
    </GatewayTransactionResponseToken>
  </ResponseTokens>
</HealthcareTransactionResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = APPROVED, X = ERROR, E = DECLINED
Code	string	The Approval, Error, or Decline code.
Message	string	A textual message that can be displayed on a terminal.
NetworkId	string	The authorization network
RiskCode	string	A code representing the SPS risk threshold that was triggered
Reference	string	A unique transaction identifier generated by the Gateway
OrderNumber	string	The user defined order number provided in the request, if one was not provided the auto generated order number is returned.
ResponseTokens	complexType	This is an array of GatewayTransactionResponseToken elements. Please see the section GatewayTransactionResponseToken
VaultTransactionResponse	complexType	Please see the section VaultTransactionResponse

DELETE

Deletes/Voids an unsettled healthcare transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/healthcaretransactions/{reference}

DELETE Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Cash transactions

A cash transaction is used to record transactions in which cash was the payment method.

POST

Creates a new cash transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/cashtransactions

Supported HTTP VERBS

POST

POST Request Message Body - CashTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?><CashTransactionRequest
xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
<C_ADDRESS>string</C_ADDRESS>
<C_CITY>string</C_CITY>
<C_COUNTRY>string</C_COUNTRY>
<C_EMAIL>string</C_EMAIL>
<C_FAX>string</C_FAX>
<C_NAME>string</C_NAME>
<C_SHIP_ADDRESS>string</C_SHIP_ADDRESS>
<C_SHIP_CITY>string</C_SHIP_CITY>
<C_SHIP_COUNTRY>string</C_SHIP_COUNTRY>
<C_SHIP_NAME>string</C_SHIP_NAME>
<C_SHIP_STATE>string</C_SHIP_STATE>
<C_SHIP_ZIP>string</C_SHIP_ZIP>
<C_STATE>string</C_STATE>
<C_TELEPHONE>string</C_TELEPHONE>
<C_ZIP>string</C_ZIP>
<T_AMT>1.00</T_AMT>
<T_APPLICATION_ID>string</T_APPLICATION_ID>
<T_DEVICE_ID>string</T_DEVICE_ID>
<T_ORDERNUM>string</T_ORDERNUM>
<T_SHIPPING>0.00</T_SHIPPING>
<T_TAX>0.00</T_TAX>
<T_UTI>string</T_UTI>
</CashTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
T_AMT	decimal	The total amount of the transaction.	Yes
T_TAX	decimal	The total tax amount for the transaction.	No
T_SHIPPING	decimal	The shipping amount for the transaction.	No
T_ORDERNUM	string	The merchant defined order number.	No
C_NAME	string	The billing name	No
C_ADDRESS	string	The billing house number and street.	No
C_STATE	string	The billing state/region.	No
C_COUNTRY	string	The billing country.	No
C_ZIP	string	The billing zip / postal code.	No
C_TELEPHONE	string	The billing telephone number.	No
C_FAX	string	The billing fax number.	No
C_SHIP_NAME	string	The shipping recipient name	No
C_SHIP_ADDRESS	string	The shipping recipient house number and street.	No
C_SHIP_STATE	string	The shipping recipient state/region.	No
C_SHIP_COUNTRY	string	The shipping recipient country.	No
C_SHIP_ZIP	string	The shipping recipient zip / postal code.	No
T_APPLICATION_ID	string	This is used to identify your software solution. Yes You need to apply for a value.	Yes
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_UTI	string	A unique transaction identifier, this field is used for communication protocol purposes. The value provided is echo'd in the response.	No

POST Response Message Body - CashTransactionResponse

```
<CashTransactionResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
<Code></Code>
<Indicator>A</Indicator>
<Message>ACCEPTED</Message>
<OrderNumber>MyOrder1</OrderNumber>
<Reference>W3ID7tH000</Reference>
<ResponseTokens />
</CashTransactionResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = ACCEPTED, X = ERROR, E = DECLINED
Code	string	The Error or Decline code.
Message	string	A textual message that can be displayed on a terminal.
Reference	string	A unique transaction identifier generated by the Gateway
OrderNumber	string	The user defined order number provided in the request, if one was not provided the auto generated order number is returned.
ResponseTokens	complexType	This is an array of GatewayTransactionResponseToken elements. Please see the section GatewayTransactionResponseToken

GET

Returns a list of cash transactions within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/cashtransactions/report?startdate={datetime}&enddate={datetime}

GET Response Message Body - ArrayOfCashTransaction

```
<ArrayOfCashTransaction xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"><CashTransaction><Application>SPS Third Party Applications (APIs, Web Services)</Application><BillingAddress><Address>12345 Street</Address><City>McLean</City><Country>US</Country><EmailAddress i:nil="true" /><FaxNumber>123-123-1224</FaxNumber><Name>Martin Henderson</Name><PostalCode>22012</PostalCode><StateRegion>VA</StateRegion><TelephoneNumber>123-123-1235</TelephoneNumber></BillingAddress><Code></Code><DeviceIdentifier>ThirdPar
```

GET Repsonse Message Body - ArrayOfCashTransaction

```
ty -
999999999990</DeviceIdentifier><Message>ACCEPTED</Message><NetworkResponse
i:nil="true" /><OrderNotes i:nil="true"
/><OrderNubmer>MyOrder1</OrderNubmer><Reference>WAREGd5BQ0</Reference><Settlem
entDate i:nil="true" /><SettlementReference i:nil="true"
/><ShippingAddress><Address>12345
Road</Address><City>McLean</City><Country>US</Country><EmailAddress
i:nil="true" /><FaxNumber i:nil="true" /><Name>Martin
Henderson</Name><PostalCode>22012</PostalCode><StateRegion>VA</StateRegion><Te
lephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Batch</TransactionStatus><TransactionType>Sale</Transacti
onType><UniqueTransactionIdentifier i:nil="true"
/></CashTransaction></ArrayOfCashTransaction>
```

Field definitions

Name	Data type	Description
CashTransaction	complexType	CashTransaction element. See section CashTransaction

DELETE

Deletes/Voids an unsettled cash transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/cashtransactions/{reference}

DELETE Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Retail transactions

A retail transaction is for transactions in which the card is present at the POS.

POST

Creates a new retail transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/retailtransactions

POST Request Message Body - RetailTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<RetailTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <C_ADDRESS>string</C_ADDRESS>
  <C_CARDNUMBER>string</C_CARDNUMBER>
  <C_EXP>string</C_EXP>
  <C_ZIP>string</C_ZIP>
  <T_AMT>0</T_AMT>
  <T_APPLICATION_ID>string</T_APPLICATION_ID>
  <T_AUTH>string</T_AUTH>
  <T_CARD_PRESENT>true</T_CARD_PRESENT>
  <T_CODE>0</T_CODE>
  <T_CVV>0</T_CVV>
  <T_DEVICE_ID>string</T_DEVICE_ID>
  <T_PARTIAL_AUTH>true</T_PARTIAL_AUTH>
  <T_TAX>0</T_TAX>
  <T_TERMINAL_NUMBER>string</T_TERMINAL_NUMBER>
  <T_TRACKDATA>string</T_TRACKDATA>
  <T_TRACKDATA_FORMAT>0</T_TRACKDATA_FORMAT>
  <T_UTI>string</T_UTI>
  <VaultTransactionRequest>
    <RequestType>READ</RequestType>
    <Token>string</Token>
  </VaultTransactionRequest>
</RetailTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
C_CARDNUMBER	string	The card number, used for manually keyed transactions.	Yes*
C_EXP	string	The card expiration date MMY, used for manually keyed transactions.	Yes*
T_AMT	decimal	The total amount of the transaction.	Yes

Name	Data type	Description	Required
T_CODE	integer	The transaction code to be used: 1 = Sale, 2 Yes* = Authorization, 3 = Force	
T_CVV	string	The card verification value read from the from physical card	
T_AUTH	string	The 6 character authorization code for use with Force transaction code.	No
T_TRACKDATA	string	The Track 1 or Track 2 magnetic strip data obtained from a card reader device.	Yes*
T_TRACKDATA_FORMAT	integer	The format of the track data: 0 = Clear Text, 1 = Magtek Encrypted	Yes*
T_TAX	decimal	The total tax amount for the transaction.	No
T_CARD_PRESENT	boolean	Used with manually keyed transactions: True = the card was present but could not be read by a card reader, False = the card was not present	No
T_PARTIAL_AUTH	boolean	Used to indicate the POS capabilities regarding Partial Authorization: True = POS supports partial authorizations, False = POS does not support partial authorizations	No
C_ADDRESS	string	The billing house number and street. Used with manually keyed transactions for AVS.	Yes*
C_ZIP	string	The billing zip / postal code. Used with manually keyed transactions for AVS.	Yes*
T_APPLICATION_ID	string	This is used to identify your software solution. You need to apply for a value.	Yes
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No
T_UTI	string	A unique transaction identifier, this field is used for communication protocol purposes. The value provided is echo'd in the response.	No
VaultTransactionRequest	complexType	Use to perform Vault operations during the transaction. See section VaultTransactionRequest	

***Fields requirements are based on manually keyed versus swiped mode of entry, AVS data is recommended for manually key transactions.**

POST Response Message Body - RetailTransactionResponse

```
<?xml version="1.0" encoding="utf-8"?>
<RetailTransactionResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Indicator>A</Indicator>
  <Code>123456</Code>
  <Message>APPROVED 123456</Message>
  <NetworkId>00</NetworkId>
  <RiskCode>00</RiskCode>
  <Reference>A1234567890</Reference>
  <OrderNumber>My Order Number</OrderNumber>
  <ResponseTokens>
    <GatewayTransactionResponseToken>
      <DataId>FSA </DataId>
      <Value>1</Value>
    </GatewayTransactionResponseToken>
    <GatewayTransactionResponseToken>
      <DataId>PAA </DataId>
      <Value>2.00</Value>
    </GatewayTransactionResponseToken>
  </ResponseTokens>
</RetailTransactionResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = APPROVED, X = ERROR, E = DECLINED
Code	string	The Approval, Error, or Decline code.
Message	string	A textual message that can be displayed on a terminal.
NetworkId	string	The authorization network
RiskCode	string	A code representing the SPS risk threshold that was triggered
Reference	string	A unique transaction identifier generated by the Gateway
OrderNumber	string	The user defined order number provided in the request, if one was not provided the auto generated order number is returned.
ResponseTokens	complexType	This is an array of GatewayTransactionResponseToken elements. Please see the section GatewayTransactionResponseToken
VaultTransactionResponse	complexType	Please see the section VaultTransactionResponse

DELETE

Deletes/Voids an unsettled retail transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/retailtransactions/{reference}

DELETE Response

The response will be a HTTP Status Code, a code of 200 indicates success.

PUT

Updates/Captures an unsettled retail authorization while allowing the final adjustment of the amount and tax.

URL

https://gateway.sagepayments.net/web_services/gateway/api/retailtransactions/{reference}

PUT Request Message Body - CreditCardCaptureTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<CreditCardCaptureTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <T_AMT>0</T_AMT>
  <T_TAX>0</T_TAX>
</CreditCardCaptureTransactionRequest>
```

PUT Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Name	Data type	Description	Required
C_CARDNUMBER	string	The card number, used for manually keyed transactions.	Yes*
C_EXP	string	The card expiration date MMY, used for manually keyed transactions.	Yes*
T_AMT	decimal	The total amount of the transaction.	Yes
T_CODE	integer	The transaction code to be used: 1 = Sale, 2 = Authorization, 3 = Force	Yes*
T_CVV	string	The card verification value read from the from physical card	
T_AUTH	string	The 6 character authorization code for use with Force transaction code.	No
T_TRACKDATA	string	The Track 1 or Track 2 magnetic strip data obtained from a card reader device.	Yes*
T_TRACKDATA_FORMAT	integer	The format of the track data: 0 = Clear Text, 1 = Magtek Encrypted	Yes*

Name	Data type	Description	Required
T_TAX	decimal	The total tax amount for the transaction.	No
T_CARD_PRESENT	boolean	Used with manually keyed transactions: True = the card was present but could not be read by a card reader, False = the card was not present	No
T_PARTIAL_AUTH	boolean	Used to indicate the POS capabilities regarding Partial Authorization: True = POS supports partial authorizations, False = POS does not support partial authorizations	No
C_ADDRESS	string	The billing house number and street. Used with manually keyed transactions for AVS.	Yes*
C_ZIP	string	The billing zip / postal code. Used with manually keyed transactions for AVS.	Yes*
T_APPLICATION_ID	string	This is used to identify your software solution. You need to apply for a value.	Yes
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No
T_UTI	string	A unique transaction identifier, this field is used for communication protocol purposes. The value provided is echo'd in the response.	No
VaultTransactionRequest	complexType	Use to perform Vault operations during the transaction. See section VaultTransactionRequest	

***Fields requirements are based on manually keyed versus swiped mode of entry, AVS data is recommended for manually key transactions.**

MOTO/eCommerce transactions

POST

Creates a new MOTO/eCommerce transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/ecommercetransactions

POST Request Message Body - ECommerceTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<ECommTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <C_ADDRESS>string</C_ADDRESS>
  <C_CARDNUMBER>string</C_CARDNUMBER>
  <C_CITY>string</C_CITY>
  <C_CVV>string</C_CVV>
  <C_COUNTRY>string</C_COUNTRY>
  <C_EMAIL>string</C_EMAIL>
  <C_EXP>string</C_EXP>
  <C_FAX>string</C_FAX>
  <C_NAME>string</C_NAME>
  <C_SHIP_ADDRESS>string</C_SHIP_ADDRESS>
  <C_SHIP_CITY>string</C_SHIP_CITY>
  <C_SHIP_COUNTRY>string</C_SHIP_COUNTRY>
  <C_SHIP_NAME>string</C_SHIP_NAME>
  <C_SHIP_STATE>string</C_SHIP_STATE>
  <C_SHIP_ZIP>string</C_SHIP_ZIP>
  <C_STATE>string</C_STATE>
  <C_TELEPHONE>string</C_TELEPHONE>
  <C_ZIP>string</C_ZIP>
  <T_AMT>0</T_AMT>
  <T_APPLICATION_ID>string</T_APPLICATION_ID>
  <T_CODE>0</T_CODE>
  <T_CUSTOMER_NUMBER>string</T_CUSTOMER_NUMBER>
  <T_DEVICE_ID>string</T_DEVICE_ID>
  <T_ORDERNUM>string</T_ORDERNUM>
  <T_SHIPPING>0</T_SHIPPING>
  <T_TAX>0</T_TAX>
  <T_UTI>string</T_UTI>
  <VaultTransactionRequest>
    <RequestType>READ</RequestType>
    <Token>string</Token>
  </VaultTransactionRequest>
</ECommTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
C_CARDNUMBER	string	The card number, used for manually keyed transactions.	Yes
C_EXP	string	The card expiration date MMY, used for manually keyed transactions.	Yes
T_AMT	decimal	The total amount of the transaction.	Yes
T_CODE	integer	The transaction code to be used: 1 = Sale, 2 = Authorization, 3 = Force	Yes
T_CVV	string	The card verification value read from the from physical card	No
T_AUTH	string	The 6 character authorization code for use with Force transaction code.	No
T_TAX	decimal	The total tax amount for the transaction.	No
VaultTransactionRequest	complexType	Use to perform Vault operations during the transaction. See section VaultTransactionRequest	No
C_NAME	string	Cardholder name	Yes
C_ADDRESS	string	The billing house number and street. Used for AVS.	Yes
C_CITY	string	Billing city	Yes
C_STATE	string	Billing state	Yes
C_ZIP	string	The billing zip / postal code. Used for AVS.	Yes
C_COUNTRY	string	Billing country	Yes
C_SHIP_ADDRESS	string	The shipping house number and street.	No
C_SHIP_CITY	string	Shipping city	No
C_SHIP_STATE	string	Shipping state	No
C_SHIP_ZIP	string	The shipping zip / postal code.	No
C_SHIP_COUNTRY	string	Shipping country	No
C_TELEPHONE	string	Customer telephone	No
C_FAX	string	Customer fax	No
C_EMAIL	string	Customer email address	Yes

POST Response Message Body - ECommerceTransactionResponse

```
<?xml version="1.0" encoding="utf-8"?>
<ECommerceTransactionResponse xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Indicator>A</Indicator>
  <Code>123456</Code>
  <Message>APPROVED 123456</Message>
  <NetworkId>00</NetworkId>
  <RiskCode>00</RiskCode>
  <Reference>A1234567890</Reference>
  <OrderNumber>My Order Number</OrderNumber>
  <ResponseTokens>
    <GatewayTransactionResponseToken>
      <DataId>FSA </DataId>
      <Value>1</Value>
    </GatewayTransactionResponseToken>
    <GatewayTransactionResponseToken>
      <DataId>PAA </DataId>
      <Value>2.00</Value>
    </GatewayTransactionResponseToken>
  </ResponseTokens>
</ECommerceTransactionResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = APPROVED, X = ERROR, E = DECLINED
Code	string	The Approval, Error, or Decline code.
Message	string	A textual message that can be displayed on a terminal.
NetworkId	string	The authorization network
RiskCode	string	A code representing the SPS risk threshold that was triggered
Reference	string	A unique transaction identifier generated by the Gateway
OrderNumber	string	The user defined order number provided in the request, if one was not provided the auto generated order number is returned.
ResponseTokens	complexType	This is an array of GatewayTransactionResponseToken elements. Please see the section GatewayTransactionResponseToken
VaultTransactionResponse	complexType	Please see the section VaultTransactionResponse

PUT

Updates/Captures an unsettled retail authorization while allowing the final adjustment of the amount and tax.

URL

https://gateway.sagepayments.net/web_services/gateway/api/ecommercetransactions/{reference}

PUT Request Message Body - CreditCardCaptureTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<CreditCardCaptureTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <T_AMT>0</T_AMT>
  <T_TAX>0</T_TAX>
</CreditCardCaptureTransactionRequest>
```

PUT Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Field definitions

Name	Data type	Description	Required
C_CARDNUMBER	string	The card number, used for manually keyed transactions.	Yes*
C_EXP	string	The card expiration date MMY, used for manually keyed transactions.	Yes*
T_AMT	decimal	The total amount of the transaction.	Yes
T_CODE	integer	The transaction code to be used: 1 = Sale, 2 = Authorization, 3 = Force	Yes*
T_CVV	string	The card verification value read from the from physical card	
T_AUTH	string	The 6 character authorization code for use with No Force transaction code.	No
T_TRACKDATA	string	The Track 1 or Track 2 magnetic strip data obtained from a card reader device.	Yes*
T_TRACKDATA_FORMAT	integer	The format of the track data: 0 = Clear Text, 1 = Yes* Magtek Encrypted	Yes*
T_TAX	decimal	The total tax amount for the transaction.	No
T_CARD_PRESENT	boolean	Used with manually keyed transactions: True = No the card was present but could not be read by a card reader, False = the card was not present	No
T_PARTIAL_AUTH	boolean	Used to indicate the POS capabilities regarding No Partial Authorization: True = POS supports	No

Name	Data type	Description	Required
		partial authorizations, False = POS does not support partial authorizations	
C_ADDRESS	string	The billing house number and street. Used with Yes* manually keyed transactions for AVS.	
C_ZIP	string	The billing zip / postal code. Used with manually keyed transactions for AVS.	Yes*
T_APPLICATION_ID	string	This is used to identify your software solution. You need to apply for a value.	Yes
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No
T_UTI	string	A unique transaction identifier, this field is used for communication protocol purposes. The value provided is echo'd in the response.	No
VaultTransactionRequest	complexType	Use to perform Vault operations during the transaction. See section VaultTransactionRequest	No

DELETE

Deletes/Voids an unsettled MOTO/eCommerce transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/ecommercetransactions/{reference}

DELETE Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Credit card refund transactions

A refund transaction is for returning money to the customer after a transaction has been settled. A refund can only be issued to a corresponding settled Sale/Authorization. The refund amount cannot exceed the amount of the original Sale/Authorization.

POST

Creates a new refund transaction based on an existing credit card transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardrefundtransactions

POST Request Message Body - CreditCardRefundTransactionRequest

```
<?xml version="1.0" encoding="utf-8"?>
<CreditCardRefundTransactionRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <T_AMT>0</T_AMT>
  <T_APPLICATION_ID>string</T_APPLICATION_ID>
  <T_DEVICE_ID>string</T_DEVICE_ID>
  <T_REFERENCE>string</T_REFERENCE>
  <T_TERMINAL_NUMBER>string</T_TERMINAL_NUMBER>
  <T_UTI>string</T_UTI>
</CreditCardRefundTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
T_AMT	decimal	The total amount of the refund transaction, this cannot exceed the total amount of the original Sale/Authorization.	Yes
T_APPLICATION_ID	string	This is used to identify your software solution. You need to apply for a value.	Yes
T_DEVICE_IDENTIFIER	string	This is used to identify the POS device using your solution. An example could be a terminal's serial number.	Yes
T_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No
T_UTI	string	A unique transaction identifier, this field is not used for communication protocol purposes. The value provided is echo'd in the response.	No
T_REFERENCE	string	The Gateway transaction reference number for the Sale/Authorization to be credited.	Yes

POST Repsonse Message Body - CreditCardRefundTransactionResponse

```
<?xml version="1.0" encoding="utf-8"?>
<RefundTransactionResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Indicator>A</Indicator>
  <Code>123456</Code>
  <Message>APPROVED 123456</Message>
  <NetworkId>00</NetworkId>
  <RiskCode>00</RiskCode>
  <Reference>A1234567890</Reference>
  <OrderNumber>My Order Number</OrderNumber>
  <ResponseTokens>
  </ResponseTokens>
</RefundTransactionResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = APPROVED, X = ERROR, E = DECLINED
Code	string	The Approval, Error, or Decline code.
Message	string	A textual message that can be displayed on a terminal.
NetworkId	string	The authorization network
RiskCode	string	A code representing the SPS risk threshold that was triggered
Reference	string	A unique transaction identifier generated by the Gateway
OrderNumber	string	The user defined order number provided in the request, if one was not provided the auto generated order number is returned.
ResponseTokens	complexType	This is an array of GatewayTransactionResponseToken elements. Please see the section GatewayTransactionResponseToken

DELETE

Deletes/Voids an unsettled credit card refund transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardrefundtransactions/{reference}

DELETE Response

The response will be a HTTP Status Code, a code of 200 indicates success.

Credit card settlements

A credit card settlement is used to finalize credit card transactions in the open batch, collecting the funds on hold from the card holders. Sales, Refunds, Captures, and Forces are all settled. Authorizations are not settled until they have been captured.

POST

Settles transactions in the open batch.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardsettlements

POST Request Message Body - CreditCardSettlementRequest

```
<?xml version="1.0" encoding="utf-8"?>
<CreditCardSettlementRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <B_COUNT>0</B_COUNT>
  <B_NET>0</B_NET>
  <B_TERMINAL_NUMBER>string</B_TERMINAL_NUMBER>
</CreditCardSettlementRequest>
```

Field definitions

Name	Data type	Description	Required
B_COUNT	integer	The number of transactions in the open batch (excluding Authorizations). This is used to reconcile/verify the number of transactions being settled. If the number does not match what is on file the batch will not close. A value of -1 will result in a Batch Inquiry providing the Count and Net on file of the open batch. This does not close the batch and is for reporting purposes.	No
B_NET	decimal	The net (debit – credit) of the transactions in the open batch to be settled (excluding Authorizations). This is used to reconcile/verify the net of transactions being settled. If the amount does not match what is on file the batch will not close.	Yes
B_TERMINAL_NUMBER	string	The Gateway terminal configuration number. This is optional. If it is not present the default Gateway terminal configuration will be used.	No

POST Repsonse Message Body - CreditCardRefundTransactionResponse

```
<?xml version="1.0" encoding="utf-8"?>
<CreditCardSettlementResponse xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <BatchCount>1</BatchCount>
  <BatchNet>1.00</BatchNet>
  <BatchNumber>A23456</BatchNumber>
  <Indicator>A</Indicator>
  <Message>BATCH CLOSED</Message>
  <Reference>A1234567890</Reference>
</CreditCardSettlementResponse>
```

Field definitions

Name	Data type	Description
Indicator	string	The response indicator: A = APPROVED, X = ERROR, E = DECLINED
Batch Number	string	The starting batch number.
Message	string	A textual message that can be displayed on a terminal.
BatchNet	decimal	The net of the batch (debit – credit).
BatchCount	integer	The number of transaction in the batch
Reference	string	A unique batch/settlement identifier generated by the Gateway

GET

Returns a list of credit card settlements within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardsettlements?startdate={datetime}&enddate={datetime}

GET Repsonse Message Body - ArrayOfCreditCardSettlement

```
<ArrayOfCreditCardSettlement xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <CreditCardSettlement>
    <Count>4</Count>
    <Date>2013-03-12T07:55:19.047</Date>
    <Net>4</Net>
    <Reference>A3CD7uI9t0</Reference>
    <TerminalNumber>001</TerminalNumber>
  </CreditCardSettlement>
  <CreditCardSettlement>
```

GET Repsonse Message Body - ArrayOfCreditCardSettlement

```
<Count>4</Count>
<Date>2013-03-12T07:55:26.593</Date>
<Net>4</Net>
<Reference>A3CD7uQ9u0</Reference>
<TerminalNumber>001</TerminalNumber>
</CreditCardSettlement>
</ArrayOfCreditCardSettlement>
```

Field definitions

Name	Data type	Description
Count	string	The number of transactions in the settlement.
Date	string	The date of the settlement.
Net	string	The net of the settlement (debit – credit).
Reference	decimal	A unique batch/settlement identifier generated by the Gateway
TerminalNumber	integer	The Gateway terminal configuration number.

GET

Returns a list of credit card settlements within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardsettlements/{reference}

GET Response Message Body - ArrayOfCreditCardSettlement

```
<CreditCardSettlement xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"><Count>4</C
ount><Date>2013-03-
12T07:55:19.047</Date><Net>4</Net><Reference>A3CD7uI9t0</Reference><TerminalNu
mber>001</TerminalNumber><Transactions><CreditCardTransaction><Application>SPS
Third Party Applications (APIs, Web
Services)</Application><BillingAddress><Address>12345
Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Na
me>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><Tele
phoneNumber></TelephoneNumber></BillingAddress><Code>093355</Code><DeviceIdent
ifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED
093355</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7iCR8</OrderNubmer><Reference>B3CD7iCR70</Reference><Settl
ementDate>2013-03-
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
erence><ShippingAddress><Address></Address><City></City><Country></Country><Fa
```

GET Response Message Body - ArrayOfCreditCardSettlement

```
xNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</TransactionType><AddressVerificationResult>A</AddressVerificationResult><CardExpirationDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><CardType>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResult><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumber></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party Applications (APIs, Web Services)</Application><BillingAddress><Address>12345 Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Name>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><TelephoneNumber></TelephoneNumber></BillingAddress><Code>094562</Code><DeviceIdentifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED 094562</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uHET</OrderNubmer><Reference>A3CD7uHES0</Reference><SettlementDate>2013-03-12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementReference><ShippingAddress><Address></Address><City></City><Country></Country><FaxNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</TransactionType><AddressVerificationResult>Y</AddressVerificationResult><CardExpirationDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><CardType>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResult><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumber></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party Applications (APIs, Web Services)</Application><BillingAddress><Address>12345 Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Name></Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><TelephoneNumber></TelephoneNumber></BillingAddress><Code>094563</Code><DeviceIdentifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED 094563</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uHEU</OrderNubmer><Reference>A3CD7uHET0</Reference><SettlementDate>2013-03-
```


GET Response Message Body - ArrayOfCreditCardSettlement

```
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
erence><ShippingAddress><Address></Address><City></City><Country></Country><Fa
xNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneN
umber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</Transac
tionType><AddressVerificationResult>Z</AddressVerificationResult><CardExpirati
onDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><Card
Type>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResul
t><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level
2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumb
er></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party
Applications (APIs, Web Services)</Application><BillingAddress><Address>12345
Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Na
me>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><Tele
phoneNumber></TelephoneNumber></BillingAddress><Code>094564</Code><DeviceIdent
ifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED
094564</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uICv</OrderNubmer><Reference>A3CD7uICu0</Reference><Settl
ementDate>2013-03-
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
erence><ShippingAddress><Address></Address><City></City><Country></Country><Fa
xNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneN
umber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</Transac
tionType><AddressVerificationResult>Z</AddressVerificationResult><CardExpirati
onDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><Card
Type>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResul
t><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level
2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumb
er></CreditCardTransaction></Transactions></CreditCardSettlement>
```

Field definitions

Name	Data type	Description
Count	string	The number of transactions in the settlement.
Date	string	The date of the settlement.
Net	string	The net of the settlement (debit – credit).
Reference	decimal	A unique batch/settlement identifier generated by the Gateway
TerminalNumber	integer	The Gateway terminal configuration number.
Transactions	complexType	Array of CreditCardTransaction

Credit card batch

The current list of open transactions awaiting settlement.

GET

Returns a list of credit card transactions in the current open batch.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardbatch

GET Response Message Body - CreditCardBatch

```
<CreditCardBatch xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"><Transactio
ns><CreditCardTransaction><Application>SPS Third Party Applications (APIs, Web
Services)</Application><BillingAddress><Address>12345
Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Na
me>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><Tele
phoneNumber></TelephoneNumber></BillingAddress><Code>093355</Code><DeviceIdent
ifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED
093355</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7iCR8</OrderNubmer><Reference>B3CD7iCR70</Reference><Settl
ementDate>2013-03-
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
erence><ShippingAddress><Address></Address><City></City><Country></Country><Fa
xNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneN
umber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</Transac
tionType><AddressVerificationResult>A</AddressVerificationResult><CardExpirati
onDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><Card
Type>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResul
t><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level
2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumb
er></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party
Applications (APIs, Web Services)</Application><BillingAddress><Address>12345
Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Na
me>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><Tele
phoneNumber></TelephoneNumber></BillingAddress><Code>094562</Code><DeviceIdent
ifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED
094562</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uHET</OrderNubmer><Reference>A3CD7uHES0</Reference><Settl
ementDate>2013-03-
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
```

GET Response Message Body - CreditCardBatch

```
erence><ShippingAddress><Address></Address><City></City><Country></Country><FaxNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</TransactionType><AddressVerificationResult>Y</AddressVerificationResult><CardExpirationDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><CardType>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResult><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumber></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party Applications (APIs, Web Services)</Application><BillingAddress><Address>12345 Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Name></Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><TelephoneNumber></TelephoneNumber></BillingAddress><Code>094563</Code><DeviceIdentifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED 094563</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uHEU</OrderNubmer><Reference>A3CD7uHET0</Reference><SettlementDate>2013-03-12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementReference><ShippingAddress><Address></Address><City></City><Country></Country><FaxNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</TransactionType><AddressVerificationResult>Z</AddressVerificationResult><CardExpirationDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><CardType>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResult><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumber></CreditCardTransaction><CreditCardTransaction><Application>SPS Third Party Applications (APIs, Web Services)</Application><BillingAddress><Address>12345 Road</Address><City>McLean</City><Country></Country><FaxNumber></FaxNumber><Name>Test</Name><PostalCode>22102</PostalCode><StateRegion>VA</StateRegion><TelephoneNumber></TelephoneNumber></BillingAddress><Code>094564</Code><DeviceIdentifier>ThirdParty - 999999999990</DeviceIdentifier><Message>APPROVED 094564</Message><OrderNotes i:nil="true"
/><OrderNubmer>ID3CD7uICv</OrderNubmer><Reference>A3CD7uICu0</Reference><Settl
```

GET Response Message Body - CreditCardBatch

```
ementDate>2013-03-
12T07:55:18.603</SettlementDate><SettlementReference>A3CD7uI9t0</SettlementRef
erence><ShippingAddress><Address></Address><City></City><Country></Country><Fa
xNumber i:nil="true"
/><Name></Name><PostalCode></PostalCode><StateRegion></StateRegion><TelephoneN
umber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Settled</TransactionStatus><TransactionType>Sale</Transac
tionType><AddressVerificationResult>Z</AddressVerificationResult><CardExpirati
onDate>0199</CardExpirationDate><CardNumber>411111XXXXXX1111</CardNumber><Card
Type>Visa</CardType><CardVerificationValueResult>M</CardVerificationValueResul
t><EntryMode>Keyed</EntryMode><Level2><CustomerNumber></CustomerNumber></Level
2><Level3 i:nil="true"
/><NetworkBatchNumber>30</NetworkBatchNumber><TerminalNumber>001</TerminalNumb
er></CreditCardTransaction></Transactions></CreditCardBatch>
```

Field definitions

Name	Data type	Description
Transactions	complexType	Array of CreditCardTransaction

Vault credit card tokens

Used to tokenize credit card data so future transactions can be run via the token instead of submitting the card data.

POST

Creates a new Vault token based on the card data provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/vaultcreditcardtokens

POST Request Message Body - VaultCreditCardTokenRequest

```
<?xml version="1.0" encoding="utf-8"?>
<VaultCreditCardTokenRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <ApplicationId>string</ApplicationId>
  <CardExpirationDate>string</CardExpirationDate>
  <CardNumber>string</CardNumber>
</VaultCreditCardTokenRequest>
```

Field definitions

Name	Data type	Description
CardNumber	string	The card number for the Vault record.
CardExpirationDate	string	The card expiration date for the Vault record
ApplicationId	decimal	This is used to identify your software solution. You need to apply for a value.

POST Response Message Body - VaultCreditCardTokenResponse

```
<?xml version="1.0" encoding="utf-8"?>
<VaultCreditCardTokenResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Result>SUCCESS</Result>
  <Token>string</Token>
</VaultCreditCardTokenResponse>
```

Field definitions

Name	Data type	Description
Result	enumeration	The result of operation being requested: SUCCESS = The operation was successful, FAILURE = The operation failed

Name	Data type	Description
Token	string	The Vault record token.

PUT

Updates an existing Vault token with the new card data provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/vaultcreditcardtokens/{token}

PUT Request Message Body - VaultCreditCardTokenRequest

```
<?xml version="1.0" encoding="utf-8"?>
<VaultCreditCardTokenRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <ApplicationId>string</ApplicationId>
  <CardExpirationDate>string</CardExpirationDate>
  <CardNumber>string</CardNumber>
</VaultCreditCardTokenRequest>
```

Field definitions

Name	Data type	Description
CardNumber	string	The card number for the Vault record.
CardExpirationDate	string	The card expiration date for the Vault record
ApplicationId	decimal	This is used to identify your software solution. You need to apply for a value.

PUT Response Message Body - VaultCreditCardTokenResponse

```
<?xml version="1.0" encoding="utf-8"?>
<VaultCreditCardTokenResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Result>SUCCESS</Result>
  <Token>string</Token>
</VaultCreditCardTokenResponse>
```

Field definitions

Name	Data type	Description
Result	enumeration	The result of operation being requested: SUCCESS = The operation was successful, FAILURE = The operation failed
Token	string	The Vault record token.

Transaction image

Transaction Image is used to attach an image to a transaction, such as a Signature image.

POST

Attached a binary image to an existing transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactionimages/{reference}

POST Request Message Body - TransactionImage

```
<?xml version="1.0" encoding="utf-8"?>
<TransactionImage xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <ImageData>string</ImageData>
  <ImageType>string</ImageType>
</TransactionImage>
```

Field definitions

Name	Data type	Description	Required
ImageData	string	Base 64 encoded binary image data	Yes
ImageType	string	The type of image, PNG is the preferred format: GIF, PNG, JPG	ImageType

POST Response

The response will be a HTTP Status Code, a code of 201 indicates success.

GET

Returns an array of binary images attached to a transaction.

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactionimages/{reference}

GET Response Message Body – ArrayOfTransactionImage

```
<ArrayOfTransactionImage xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"><Transactio
nImage><ImageData>R0lGODlhqAApAMQAAP//wQEBIaGhsDAwEJCQiIiIt3d3RYWFmZmZurq6pmZ
mbKysszMzFVVVTMzM3d3dxwCHICAgF9fXwwMDDk5OdfX1/Hx8ePj46Cgpe1NTZaWlikpKQAAAAA
AAAAAACH5BAAAAAALAAAAACoACkAAAX/ICCOZGmeaKqubOu+cCzPdG23A1IUd+/wKBqcQgYG8Kk
cSk0DSaBQxHRrFqvskQh0GA0AgKseEWaQIEESEWYBkY5bgcxjAaAAlH4K5SFMNzgQkwCQhtSgtcIg
MBEysVRQEogUIKDQ0XLQEPLwhGS1t8jBQRW0YBlD0La6dGkytHbhmns3YiX5woflwCjTa9GHIVEqcH
BBQEUMEqehsrecWlAYMAa3wmvVwWCmg1GEW5ZF9GCAokjGkqAw6AKAlHEAFUSrgiATxOrIC9SDOMRh
HIJGD1qoSBBjagFTiI78SAXjUuGBHAqJ0IBg+MHMikhg2NLX8ML1PC7R41E3XS/9HQEqVCPSetDs0g
```

GET Response Message Body – ArrayOfTransactionImage

```
0ooAAQEOIh2YN2INDU8aIJbIaBFIXgDmUngKN4MVgAEHHJwcgSCSkakyGGRrZUSCAKxPVMi4mOYLiQ
imrgHR4zHFgB1qY2SEMGhLUhIZCyhgVLAGowICALOMSzXAAhZvNbYqQKCIzcZGCBwOkuDLAZknDKyR
UMOTgzaJxOL58hnA17s19PBc4WChiwEDFghgxSpy4L1YayhIOosAHBWeIHCUwQ1CG0gBfve8BycR3R
vv2rJAGGMLxQDGMQfZBMazC24HlMeoc+CwhXhF9eCLLp5GccInMmpvkegAgF6rhRwEkLGfimyTzaBH
Ltw4Q0IiDXmSH/8Na</ImageData><ImageType>GIF</ImageType></TransactionImage></Ar
rayOfTransactionImage>
```

Account service

Account Service is used to determine the services available for the account. The presence of an AccountService element in the response indicates that the service is available.

GET

Returns an array of active services for the account.

URL

https://gateway.sagepayments.net/web_services/gateway/api/accountservices

GET Response Message Body – ArrayOfAccountService

```
<ArrayOfAccountService xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <AccountService>
    <Features>
      <AccountServiceFeature>
        <Detail>22 Hour EST</Detail>
        <Name>AutoClose</Name>
      </AccountServiceFeature>
    </Features>
    <Name>CreditCard</Name>
  </AccountService>
  <AccountService>
    <Features>
      <AccountServiceFeature>
        <Detail>22 Hour EST</Detail>
        <Name>AutoClose</Name>
      </AccountServiceFeature>
    </Features>
    <Name>ACH</Name>
  </AccountService>
  <AccountService>
    <Features i:nil="true" />
    <Name>Cash</Name>
  </AccountService>
</ArrayOfAccountService>
```

Field definitions

Name	Data type	Description
Name	string	The name of the service: CreditCard, ACH, Cash
Features	complexType	An array of AccountServiceFeatures
Name	string	The name of the service feature
Detail	string	Additional information about the feature

Credit card BIN

Credit Card BIN is used to determine the type of credit card that is being used.

GET

Returns card bin information.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardbin/{BIN}

GET Response Message Body – CreditCardBinResponse

```
<CreditCardBinResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
<ARDF>
<Combo>string</Combo>
<FundingSource>string</FundingSource>
<ProductDescription>string</ProductDescription>
<ProductID>string</ProductID>
<Usage>string</Usage>
</ARDF>
<BIN>402451</BIN>
<GCMCs>
<GCMCResponse>
<Code>string</Code>
<Description>string</Description>
</GCMCResponse>
</GCMCs>
</CreditCardBinResponse>
```

CreditCardBinResponse field definitions

Name	Data type	Description
ARDF	complexType	VISA BIN information
GCMCs	complexType	Array of GCMCResponse
BIN	string	The BIN

ARDF field definitions

Name	Data type	Description
Combo	string	"Y" = Combo Card, Credit and Debit "C" = Credit Card, Credit and Prepaid " " = Not a combo card
FundingSource	string	"C" = Credit Card "D" Debit Card

Name	Data type	Description
		"P" = Prepaid "H" = Charge
ProductDescription	string	The textual description of the ProductID
ProductID	string	Please see table 1.1 in Appendix A
Usage	string	"C" = Credit Card "D" = Debit Card

GCMCResponse field definitions

Name	Data type	Description
Code	string	Please see table 1.2 in Appendix A
Description	string	The textual description of the Code

Account updater

Account Updater is a report of Vault records that have been updated on your behalf based on changes at the card issuer. Updates include changes in the card number or card expiration date.

GET

Returns an Account Updater response for updates that occurred within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/accountupdater?startdate={datetime}&enddate={datetime}

GET Repsonse Message Body - ArrayOfCreditCardSettlement

```
<AccountUpdaterResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models"><VaultResults><AccountUpdaterVaultResult><ExpirationDate>1015</ExpirationDate><GUID>0016dae4g4hq23</GUID><Last4>1111</Last4></AccountUpdaterVaultResult><AccountUpdaterVaultResult><ExpirationDate>0816</ExpirationDate><GUID>2257820f1349015</GUID><Last4>5454</Last4></AccountUpdaterVaultResult></VaultResults></AccountUpdaterResponse>
```

Field definitions

Name	Data type	Description
VaultResults	complexType	Array of AccountUpdaterVaultResult

Credit card repayment

Credit Card Repayment is used to pull a report of repayments done to the ACH account within the date range provided.

GET

Returns an array of credit card repayments made to the account within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/creditcardrepayment?startdate={datetime}&enddate={datetime}

GET Response Message Body – ArrayOfCreditCardRepayment

```
<ArrayOfCreditCardRepayment xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <CreditCardRepayment>
    <AccountNumber>1111</AccountNumber>
    <Amount>45787.13</Amount>
    <BatchDate>2014-10-23T00:00:00</BatchDate>
    <DBCR>CR</DBCR>
    <FileDate>2014-10-25T00:00:00</FileDate>
    <MID>3948907919841111</MID>
    <RoutingNumber>2894</RoutingNumber>
  </CreditCardRepayment>
  <CreditCardRepayment>
    <AccountNumber>1111</AccountNumber>
    <Amount>50307.17</Amount>
    <BatchDate>2014-10-22T00:00:00</BatchDate>
    <DBCR>CR</DBCR>
    <FileDate>2014-10-24T00:00:00</FileDate>
    <MID>3948907919841111</MID>
    <RoutingNumber>2894</RoutingNumber>
  </CreditCardRepayment>
</ArrayOfCreditCardRepayment>
```

CreditCardRepayment field definitions

Name	Data type	Description
AccountNumber	string	Bank account number
RoutingNumber	string	Bank Routing number
Amount	decimal	Repayment amount
BatchDate	datetime	The effective batch date and time
DBCR	string	Debit/Credit

Name	Data type	Description
FileDate	datetime	The date and time the file is imported
MID	string	Internal merchant number

Virtual check repayment

Virtual Check Repayment is used to pull a report of repayments done to the ACH account within the date range provided.

GET

Returns an array of virtual check repayments made to the account within the date range provided.

URL

https://gateway.sagepayments.net/web_services/gateway/api/virtualcheckrepayment?startdate={datetime}&enddate={datetime}

GET Response Message Body – ArrayOfVirtualCheckRepayment

```
<ArrayOfVirtualCheckRepayment xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <VirtualCheckRepayment>
    <CreditProcessed>0.0000</CreditProcessed>
    <DebitProcessed>687.4000</DebitProcessed>
    <DebitRepaid>687.4000</DebitRepaid>
    <DiscountFee>0.0000</DiscountFee>
    <File>F674945661111-10152014-221306.</File>
    <FileFee>0.0000</FileFee>
    <RepaidDate>2010-10-22T00:00:00</RepaidDate>
    <TransactionFee>0.0000</TransactionFee>
  </VirtualCheckRepayment>
  <VirtualCheckRepayment>
    <CreditProcessed>626.8900</CreditProcessed>
    <DebitProcessed>177.6700</DebitProcessed>
    <DebitRepaid>177.6700</DebitRepaid>
    <DiscountFee>0.0000</DiscountFee>
    <File>F674945661111-10162014-220923.</File>
    <FileFee>0.0000</FileFee>
    <RepaidDate>2010-10-22T00:00:00</RepaidDate>
    <TransactionFee>0.0000</TransactionFee>
  </VirtualCheckRepayment>
</ArrayOfVirtualCheckRepayment>
```

VirtualCheckRepayment field definitions

Name	Data type	Description
File	string	The file name processed
RepaidDate	datetime	The date and time merchant is repaid for the file
CreditProcessed	decimal	Total credit amount processed in the specified file

Name	Data type	Description
DebitProcessed	decimal	Total debit amount processed in the specified file
DebitRepaid	decimal	Total debit amount repaid to the merchant for the file
FileFee	decimal	Total file fee charged
TransactionFee	decimal	Total transaction fee charged
DiscountFee	decimal	Total discount fee charged

Order detail

Order Detail is to pull/add order items and invoices to a retail or cash or healthcare transaction.

POST

Add an array of order details and Invoice email to a transaction.

URLs

<https://gateway.sagepayments.net/webservices/gateway/api/retailtransactions/{reference}/orderdetail>

<https://gateway.sagepayments.net/webservices/gateway/api/cashtransactions/{reference}/orderdetail>

<https://gateway.sagepayments.net/webservices/gateway/api/healthcaretransactions/{reference}/orderdetail>

POST Request Message Body –Order

```
<?xml version="1.0" encoding="utf-8"?>
<Order xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <InvoiceEmail>
    <Body>string</Body>
    <From>string</From>
    <To>string</To>
  </InvoiceEmail >
  <OrderItems>
    <OrderItem>
      <Description>string</Description>
      <PartNumber>string</PartNumber>
      <Price>double</Price>
      <Quantity>integer</Quantity>
    </OrderItem>
  </OrderItems>
  <Date>Datetime</Date>
</Order>
```

OrderRequest field definitions

Name	Data type	Description
Date	datetime	The date and time the order is added
InvoiceEmail	complexType	Invoice information
OrderItems	complexType	Array of OrderItems

InvoiceEmail field definitions

Name	Data type	Description
To	string	'To' email address
From	string	'From' email address
Body	string	Email body with order information

OrderItem field definitions

Name	Data type	Description
Description	string	Product description
PartNumber	string	Product identification number
Price	decimal	Price paid for the order
Quantity	integer	Number of items ordered

POST Response

The response will be a HTTP Status Code, a code of 201 indicates success.

GET

Returns an array of order details and Invoice email attached to a transaction.

URLs

<https://gateway.sagepayments.net/webservices/gateway/api/retailtransactions/{reference}/orderdetail>

<https://gateway.sagepayments.net/webservices/gateway/api/cashtransactions/{reference}/orderdetail>

<https://gateway.sagepayments.net/webservices/gateway/api/healthcaretransactions/{reference}/orderdetail>

GET Response Message Body –OrderDetails

```
<Order xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
<Date>0001-01-01T00:00:00</Date>
<InvoiceEmail>
<Body>
***** INVOICE *****
=====
7/25/2013 11:17:03 AM
=====
```

GET Response Message Body –OrderDetails

mailto:xxxxxxx@sagepayments.com

Bill To:

NOne
Test Tester
12345 Raod
McLean, VA 22102
United States
Email : mailto:xxxx@sage.com
Day Time Phone: 123-123-1234
Mobile Phone : 123-123-1234

Ship To:

NOne
Test Tester
12345 Raod
McLean, VA 22102
United States

Card Type: Visa

Paid Via Card: 4111XXXXXXXXXXXX

Authorization: 099371

Order Number : 1020

Shipping Via : Not Specified

AVS Service : Address matches, Zip does not

CVV Response : Not Processed

Remote IP : 148.78.252.130

```
=====
PART                DESCRIPTION                QUANTITY    PRICE
TOTAL
```

```
=====
0001                Les Paul                1           $1,250.00
$1,250.00
```

```
=====
Sub-Total
$1,250.00
```

</Body>

<From>vthelp@sagepayments.com</From>

<To>xxxx@sage.com</To>

</InvoiceEmail>

GET Response Message Body –OrderDetails

```
<OrderItems>
<OrderItem>
<Description>LesPaul</Description>
<PartNumber>0001</PartNumber>
<Price>1250</Price>
<Quantity>1</Quantity>
</OrderItem>
</OrderItems>
</Order>
```

OrderResponse field definitions

Name	Data type	Description
Date	datetime	The date and time the order is added
InvoiceEmail	complexType	Invoice information
OrderItems	complexType	Array of OrderItems

InvoiceEmail field definitions

Name	Data type	Description
To	string	'To' email address
From	string	'From' email address
Body	string	Email body with order information

OrderItem field definitions

Name	Data type	Description
Description	string	Product description
PartNumber	string	Product identification number
Price	decimal	Price paid for the order
Quantity	integer	Number of items ordered

Merchant details

Reporting endpoint that returns details about the merchant account.

GET

URL

https://gateway.sagepayments.net/web_services/gateway/api/merchantinfo

Get Response Message Body - MerchantModel

```
<MerchantModel
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <AtlasSAPID>string</AtlasSAPID>
  <BusinessLevel>string</BusinessLevel>
  <CorpName>string</CorpName>
  <CorporateHeadquarters>boolean</CorporateHeadquarters>
  <DBA>string</DBA>
  <DateBusinessOpened>datetime</DateBusinessOpened>
  <FederalTaxID>string</FederalTaxID>
  <HQAppID>integer</HQAppID>
  <LeadSourceDescription>string</LeadSourceDescription>
  <LocationEmail>string</LocationEmail>
  <Owner>
    <Address>
      <City>string</City>
      <Country>string</Country>
      <Line1>string</Line1>
      <Line2>string</Line2>
      <PostalCode>string</PostalCode>
      <Region>string</Region>
    </Address>
    <ContactInfo>
      <EmailAddress>string</EmailAddress>
      <Fax>string</Fax>
      <Phone>string</Phone>
    </ContactInfo>
    <DateOfBirth>string</DateOfBirth>
    <FirstName>string</FirstName>
    <LastName>string</LastName>
    <Name>string</Name>
    <SSN>string</SSN>
  </Owner>
  <SICCode>string</SICCode>
</MerchantModel>
```


Field definitions

Name	Data type	Description
AtlasSAPID	string	The ID associated with the merchant in Sage NA's SAP system
BusinessLevel	string	Indicates the type of business (Retail, MOTO, Hotel, etc)
CorpName	string	The name of the corporation with which this merchant is associated
CorporateHeadquarters	boolean	Indicates whether this location is the company's corporate headquarters
DBA	string	The merchant's DBA name
DateBusinessOpened	dateTime	The date the merchant business became incorporated
FederalTaxID	string	The merchant's federal tax ID
HQAppID	integer	The AppID associated with the Corp
LeadSourceDescription	string	The marketing lead used to gain this merchant's business
LocationEmail	string	The merchant's email address
Owner.Address	complex type	The owner's address
Owner.ContactInfo	complex type	The owner's email address, phone number, and fax number
Owner.DateOfBirth	string	The owner's date of birth
Owner.FirstName	string	The owner's first name
Owner.LastName	string	The owner's last name
Owner.Name	string	The owner's name
Owner.SSN	string	The owner's SSN
SICCode	string	The merchant's standard industry code

Settled batch summary

Returns information about settled batches that occurred within the specified date range.

Get

URL

https://gateway.sagepayments.net/web_services/gateway/api/settlements?StartDate={d}&EndDate={d}&Method={n}

Parameter definitions

Name	Data type	Description	Required
StartDate	date	The first date to include in the date range	No
EndDate	date	The last date to include in the date range	No
Method	integer	One of the following values indicating the types of transactions to be returned: 1-Bank Card, 2-Virtual Check, 3-All Transactions (default)	Method

This route will return a maximum of 90 days' worth of data—if the requested date range spans more than 90 days, it will be adjusted, and the response will indicate the actual date range used. If StartDate and EndDate are not specified, the API will return data for the last 90 days.

GET Repsonse Message Body – BatchSummaryCollection

```
<BatchSummaryCollection
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <StartDate
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">datetime
  </StartDate>
  <EndDate
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">datetime
  </EndDate>
  <Items
xmlns:d2p1="http://schemas.datacontract.org/2004/07/wapiGateway.Models"
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">
    <d2p1:BatchSummaryModel>
      <d2p1:Count>integer</d2p1:Count>
      <d2p1:File>string</d2p1:File>
      <d2p1:Net>decimal</d2p1:Net>
      <d2p1:Reference>string</d2p1:Reference>
      <d2p1:SettlementDate>datetime</d2p1:SettlementDate>
      <d2p1:Type>string</d2p1:Type>
    </d2p1:BatchSummaryModel>
```

GET Repsonse Message Body – BatchSummaryCollection

```
</Items>  
</BatchSummaryCollection>
```

The response is a collection of items, plus StartDate and EndDate properties indicating the actual date range returned. Note that this date range may be different than the one requested for any of the following conditions:

- StartDate is not specified
- EndddDate is not specified
- Both StartDate and EndDate are specified, but the corresponding number of days exceeds 90

Field definitions

Name	Data type	Description
StartDate	date	The actual start date used in the result set
EndDate	date	The actual end date used in the result set
Items	collection	A collection of items representing each settled batch summary
	Count	integer
	File	string
	Net	decimal
	Reference	string
	Settlement Date	date
	Type	string

Transaction search

Allows a merchant's transactions to be searched.

POST

Posts search criteria to the API and returns a matching result set.

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactions

POST Request Message Body - TransactionSearchRequest

```
<TransactionSearchRequest
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">
  <Criteria>
    <Amount>decimal</Amount>
    <CustomerName>string</CustomerName>
    <EndDate>date</EndDate>
    <IncludeDetails>boolean</IncludeDetails>
    <OrderNumber>string</OrderNumber>
    <Reference>string</Reference>
    <StartDate>date</StartDate>
    <StatusChanged>boolean</StatusChanged>
  </Criteria>
  <PageNumber>integer</PageNumber>
  <PageSize>integer</PageSize>
</TransactionSearchRequest>
```

Note: Any fields not containing search values should be removed from the request.

Field definitions

Name	Data type	Description	Required
PageSize	Integer	The number of items to include in each set of results. Defaults to 100	No
PageNumber	Integer	The page number within the results to return	No
Criteria.CustomerName	String	The name of the customer	No
Criteria.Amount	Decimal	The amount of the transaction	No
Criteria.StartDate	Date	The first date in the date range to search within. Ignored if EndDate is not included.	No
Criteria.EndDate	Date	The last date in the date range to search within. Ignored if StartDate is not included	No
Criteria.OrderNumber	String	The order number associated with the transaction	No

Name	Data type	Description	Required
Criteria.StatusChanged	Boolean	Indicates whether to return only those transactions where the status has changed	No
Criteria.IncludeDetails	Boolean	Indicates whether the results should include line item details	No

POST Response Message Body – PagedCollection of TransactionModels

```

<TransactionCollection
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <CurrentPage

xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">integer
  </CurrentPage>
  <Items
xmlns:d2p1="http://schemas.datacontract.org/2004/07/wapiGateway.Models"
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">
    <d2p1:TransactionModel>
      <d2p1:Approved>boolean</d2p1:Approved>
      <d2p1:BatchReference>string</d2p1:BatchReference>
      <d2p1:Code>string</d2p1:Code>
      <d2p1:Customer>
        <d2p1:Address>
          <d2p1:City>string</d2p1:City>
          <d2p1:Country>string</d2p1:Country>
          <d2p1:Line1>string</d2p1:Line1>
          <d2p1:Line2>string</d2p1:Line2>
          <d2p1:PostalCode>string</d2p1:PostalCode>
          <d2p1:Region>string</d2p1:Region>
        </d2p1:Address>
        <d2p1:ContactInfo>
          <d2p1:EmailAddress></d2p1:EmailAddress>
          <d2p1:Fax>string</d2p1:Fax>
          <d2p1:Phone>string</d2p1:Phone>
        </d2p1:ContactInfo>
        <d2p1:Name>string</d2p1:Name>
      </d2p1:Customer>
      <d2p1:Details>
        <d2p1:TransactionDetailModel>
          <d2p1:Description>string</d2p1:Description>
          <d2p1:PricePerItem>decimal</d2p1:PricePerItem>
          <d2p1:Quantity>integer</d2p1:Quantity>
        </d2p1:TransactionDetailModel>
      </d2p1:Details>
      <d2p1:Message>string</d2p1:Message>
      <d2p1:OrderNumber>string</d2p1:OrderNumber>
    </d2p1:TransactionModel>
  </Items>
</TransactionCollection>

```

POST Response Message Body – PagedCollection of TransactionModels

```

    <d2p1:Reference>string</d2p1:Reference>
    <d2p1:SettlementDate>datetime</d2p1:SettlementDate>
    <d2p1:ShippingAmount>decimal</d2p1:ShippingAmount>
    <d2p1:ShippingInfo>
      <d2p1:Address>
        <d2p1:City>string</d2p1:City>
        <d2p1:Country>string</d2p1:Country>
        <d2p1:Line1>string</d2p1:Line1>
        <d2p1:Line2>string</d2p1:Line2>
        <d2p1:PostalCode>string</d2p1:PostalCode>
        <d2p1:Region>string</d2p1:Region>
      </d2p1:Address>
      <d2p1:Name>string</d2p1:Name>
    </d2p1:ShippingInfo>
    <d2p1:StatusCode>integer</d2p1:StatusCode>
    <d2p1:TaxAmount>decimal</d2p1:TaxAmount>
    <d2p1:TotalAmount>decimal</d2p1:TotalAmount>
    <d2p1:TransactionCode>integer</d2p1:TransactionCode>
    <d2p1:TransactionDate>datetime</d2p1:TransactionDate>
    <d2p1:AvsMessage>string</d2p1:AvsMessage>
    <d2p1:CardType>string</d2p1:CardType>
    <d2p1:PrimaryData>string</d2p1:PrimaryData>
    <d2p1:SecondaryData>string</d2p1:SecondaryData>
  </d2p1:TransactionModel>
</Items>
<PageSize
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">integer
</PageSize>
<TotalItemCount
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">integer
</TotalItemCount></TransactionCollection>

```

Field descriptions

Name	Data type	Description
TotalItemCount	integer	The total number of items in the result set
PageSize	integer	The number of items in each page of the result set
CurrentPage	integer	The current page of the result set being returned
Items	collection	The result set
	Approved	bool
	BatchReference	string

Name	Data type	Description
	Code	string
	Customer.Address	complex type
	Customer.ContactInfo	complex type
	Customer.Name	string
	Details	
	Message	string
	Order Number	string
	Reference	string
	SettlementDate	datetime
	ShippingAmount	decimal
	ShippingInfo.Address	complex type
	ShippingInfo.Name	complex type
StatusCode	string	1 = Batch, 2 = Settled, 3 = Expired
TaxAmount	decimal	The amount charged for tax
TotalAmount	decimal	The total transaction amount
TransactionCode	string	1 = Sale, 2 = Authorization, 3 = Force/Capture, 4 = Void, 6 = Credit
TransactionDate	datetime	The date of the transaction
AvsMessage	string	A message indicating the status of the address verification
CardType	string	The type of bank card used
PrimaryData	string	For Bankcard transactions: the card number For VirtualCheck transactions: the routing number
SecondaryData	string	For Bankcard transactons: The expiration date For VirtualCheck transactions: The account number

Bank card transaction detail

Returns transaction details for the specified bank card reference

GET

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactions/bankcards/{reference}
}

GET Response Message Body - BankCardDetailModel

```
<BankCardDetailModel
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Approved>boolean</Approved>
  <BatchReference>string</BatchReference>
  <Code>string</Code>
  <Customer>
    <Address>
      <City>string</City>
      <Country>string</Country>
      <Line1>string</Line1>
      <Line2>string</Line2>
      <PostalCode>string</PostalCode>
      <Region>string</Region>
    </Address>
    <ContactInfo>
      <EmailAddress>string</EmailAddress>
      <Fax>string</Fax>
      <Phone>string</Phone>
    </ContactInfo>
    <Name>string</Name>
  </Customer>
  <Message>string</Message>
  <OrderNumber>string</OrderNumber>
  <Reference>string</Reference>
  <SettlementDate>date </SettlementDate>
  <ShippingAmount>decimal</ShippingAmount>
  <ShippingInfo>
    <Address>
      <City>string</City>
      <Country>string</Country>
      <Line1>string</Line1>
      <Line2>string</Line2>
      <PostalCode>string</PostalCode>
      <Region>string</Region>
    </Address>
    <Name>string</Name>
```


GET Response Message Body - BankCardDetailModel

```
</ShippingInfo>
<StatusCode>integer</StatusCode>
<TaxAmount>decimal</TaxAmount>
<TotalAmount>19.9900</TotalAmount>
<TransactionCode>integer</TransactionCode>
<TransactionDate>datetime</TransactionDate>
<AvsMessage>string</AvsMessage>
<CardNumber>string</CardNumber>
<CardType>string</CardType>
<CustomerNumber>string</CustomerNumber>
<CvvMessage>string</CvvMessage>
<ExpirationDate>string</ExpirationDate>
</BankCardDetailModel>
```

Field definitions

Name	Data type	Description
Approved	bool	Whether the transaction was approved
BatchReference	string	The batch's reference number
Code	string	The response code
Customer.Address	complex type	The customer's billing address
Customer.ContactInfo	complex type	The customer's phone number, fax number, and email address
Customer.Name	string	The customer's name
Message	string	A message describing the transaction response
Order Number	string	A unique identifier provided by the client, or system-generated if not provided
Reference	string	The transaction's reference number
SettlementDate	datetime	The date the transaction was settled
ShippingAmount	decimal	The amount charged for shipping
ShippingInfo.Address	complex type	The customer's shipping address
ShippingInfo.Name	complex type	The customer's "ship to" name
Approved	bool	Whether the transaction was approved
BatchReference	string	The batch's reference number
StatusCode	string	1 = Batch, 2 = Settled, 3 = Expired

Name	Data type	Description
TaxAmount	decimal	The amount charged for tax
TotalAmount	decimal	The total transaction amount
TransactionCode	string	1 = Sale, 2 = Authorization, 3 = Force/Capture, 4 = Void, 6 = Credit
TransactionDate	datetime	The date of the transaction
AvsMessage	string	A message indicating the status of the address verification
CardNumber	string	The Bankcard number
CardType	string	The type of bankcard used
CustomerNumber	string	The customer number used by the merchant to identify the customer
CvvMessage	string	A message indicating the status of CVV verification
ExpirationDate	string	The Bankcard's expiration date

Virtual check transaction detail

Returns transaction details for the specified virtual check reference

GET

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactions/virtualchecks/{reference}

GET Repsonse Message Body - VirtualCheckDetailModel

```
<VirtualCheckDetailModel
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Approved>boolean</Approved>
  <BatchReference>string</BatchReference>
  <Code>string</Code>
  <Customer>
    <Address>
      <City>string</City>
      <Country>string</Country>
      <Line1>string</Line1>
      <Line2>string</Line2>
      <PostalCode>string</PostalCode>
      <Region>string</Region>
    </Address>
    <ContactInfo>
      <EmailAddress>string</EmailAddress>
      <Fax>string</Fax>
      <Phone>string</Phone>
    </ContactInfo>
    <Name>string</Name>
  </Customer>
  <Message>string</Message>
  <OrderNumber>string</OrderNumber>
  <Reference>string</Reference>
  <SettlementDate>date </SettlementDate>
  <ShippingAmount>decimal</ShippingAmount>
  <ShippingInfo>
    <Address>
      <City>string</City>
      <Country>string</Country>
      <Line1>string</Line1>
      <Line2>string</Line2>
      <PostalCode>string</PostalCode>
      <Region>string</Region>
    </Address>
    <Name>string</Name>
```

GET Repsonse Message Body - VirtualCheckDetailModel

```
</ShippingInfo>
<StatusCode>integer</StatusCode>
<TaxAmount>decimal</TaxAmount>
<TotalAmount>19.9900</TotalAmount>
<TransactionCode>integer</TransactionCode>
<TransactionDate>datetime</TransactionDate>
<RoutingNumber>string</RoutingNumber>
<AccountNumber>string</AccountNumber>
<DDA>boolean</DDA>
<OriginatorID>string</OriginatorID>
<Authenticated>boolean</Authenticated>
<EftType>string</EftType>
</BankCardDetailModel>
```

Field definitions

Name	Data type	Description
Approved	bool	Whether the transaction was approved
BatchReference	string	The batch's reference number
Code	string	The response code
Customer.Address	complex type	The customer's billing address
Customer.ContactInfo	complex type	The customer's phone number, fax number, and email address
Customer.Name	string	The customer's name
Message	string	A message describing the transaction response
Order Number	string	A unique identifier provided by the client, or system-generated if not provided
Reference	string	The transaction's reference number
SettlementDate	datetime	The date the transaction was settled
ShippingAmount	decimal	The amount charged for shipping
ShippingInfo.Address	complex type	The customer's shipping address
ShippingInfo.Name	complex type	The customer's "ship to" name
StatusCode	string	1 = Batch, 2 = Settled, 3 = Expired
TaxAmount	decimal	The amount charged for tax
TotalAmount	decimal	The total transaction amount

Name	Data type	Description
TransactionCode	string	1 = Sale, 2 = Authorization, 3 = Force/Capture, 4 = Void, 6 = Credit
TransactionDate	datetime	The date of the transaction
RoutingNumber	string	The bank account's routing number
AccountNumber	string	The bank account's account number
DDA	boolean	Indicates whether the account is a demand deposit account
OriginatorID	string	The unique identifier for the originator that processed the transaction
Authenticated	boolean	Indicates whether the transaction was authenticated
EftType	string	The transaction class

Transaction volume

Returns the number and amount of bank card transactions for a given time period

GET

URL

https://gateway.sagepayments.net/web_services/gateway/api/transactions/volume?StartDate={d}&EndDate={d}

Parameter definitions

Name	Data type	Description	Required
StartDate	Date	The first date in the date range to search within.	Yes
EndDate	Date	The last date in the date range to search within.	Yes

GET Response Message Body - AccountVolumeModel

```
<AccountVolumeModel
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <MerchantName>string</MerchantName>
  <TransactionCount>integer</TransactionCount>
  <TransactionVolume>decimal</TransactionVolume>
</AccountVolumeModel>
```

Field definitions

Name	Data type	Description
MerchantName	string	The merchant's name
TransactionCount	integer	The number of transactions processed in the specified timeframe
TransactionVolume	decimal	The sum of all transaction amounts for transactions processed in the specified timeframe

Virtual check rejects

GET

URL

https://gateway.sagepayments.net/web_services/gateway/api/virtualcheckrejects?StartDate={d}&EndDate={d}

Parameter definitions

Name	Data type	Description	Required
StartDate	date	The first date to include in the date range	No
EndDate	date	The last date to include in the date range	No

This route will return a maximum of 90 days' worth of data—if the requested date range spans more than 90 days, it will be adjusted, and the response will indicate the actual date range used. If StartDate and EndDate are not specified, the API will return data for the last 90 days.

GET Response Message Body - VirtualCheckRejectCollection

```
<VirtualCheckRejectCollection xmlns:i="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <StartDate
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">datetime
  </StartDate>
  <EndDate
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">datetime
  </EndDate>
  <Items
xmlns:d2p1="http://schemas.datacontract.org/2004/07/wapiGateway.Models"
xmlns="http://schemas.datacontract.org/2004/07/SPS.Gateway.API.Common">
    <d2p1:RejectModel>
      <d2p1:AddendaType>string</d2p1:AddendaType>
      <d2p1:CorrectionInfo>string</d2p1:CorrectionInfo>
      <d2p1:CustomerName>string</d2p1:CustomerName>
      <d2p1:CustomerNumber>string</d2p1:CustomerNumber>
      <d2p1:OriginatorID>string</d2p1:OriginatorID>
      <d2p1:ReceivingDFI>
        <d2p1:AccountNumber>string</d2p1:AccountNumber>
        <d2p1:RoutingNumber>string</d2p1:RoutingNumber>
      </d2p1:ReceivingDFI>
      <d2p1:RejectAmount>decimal</d2p1:RejectAmount>
      <d2p1:RejectCode>integer</d2p1:RejectCode>
      <d2p1:RejectDate>datetime</d2p1:RejectDate>
      <d2p1:Trace>string</d2p1:Trace>
      <d2p1:TransactionType>string</d2p1:TransactionType>
```

GET Response Message Body - VirtualCheckRejectCollection

```
</d2p1:RejectModel>
</Items>
</VirtualCheckRejectCollection>
```

The response is a collection of items, plus `StartDate` and `EndDate` properties indicating the actual date range returned. Note that this date range may be different than the one requested for any of the following conditions:

- `StartDate` is not specified
- `EndddDate` is not specified
- Both `StartDate` and `EndDate` are specified, but the corresponding number of days exceeds 90.

Field definitions

Name	Data type	Description
<code>StartDate</code>	date	The actual start date represented by the result set
<code>EndDate</code>	date	the actual end date represented by the result set
<code>Items</code>	collection	The result set
<code>AddendaType</code>	string	
<code>CorrectionInfo</code>	string	A message that describes why the transaction was rejected
<code>CustomerName</code>	string	The owner of the account
<code>OriginatorID</code>	string	The unique identifier for the originator that processed the transaction
<code>ReceivingDFI</code>	complex type	The customer's bank account
<code>Account</code>	string	The account number
<code>RoutingNumber</code>	string	The routing number
<code>RejectAmount</code>	decimal	The amount of the reject
<code>RejectCode</code>	integer	The standard EFT error code
<code>RejectDate</code>	datetime	The date the rejection occurred
<code>Trace</code>	string	The unique identifier associated with this reject

Name	Data type	Description
TransactionType	string	Debit or Credit

HMAC

This is designed to be used in the development phase/process to assist in HMAC calculation issues. You can use this to confirm that your local HMAC SHA-1 algorithm produces the expected results by comparing it to the response of this method. An authentication header value is NOT required to use this method. Do NOT use this method to calculate your HMAC values in a production environment. Your KEY should be considered private and should never be transmitted.

POST

Creates an Authentication header HMAC value.

URL

https://gateway.sagepayments.net/web_services/gateway/api/hmacs

POST Request Message Body - HMACRequest

```
<?xml version="1.0" encoding="utf-8"?>
<HMACRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Data>string</Data>
  <Key>string</Key>
  <URL>string</URL>
  <Verb>string</Verb>
</HMACRequest>
```

Field definitions

Name	Data type	Description	Required
Data	string	The message body for PUT and POST verbs	No*
Key	string	Your M_KEY	Yes
URL	string	The Gateway Web Service URL	Yes
Verb	string	The HTTP verb being used: GET, POST, PUT, DELETE	Yes

POST Request Message Body - HMACRequest

```
<?xml version="1.0" encoding="utf-8"?>
<HMACResponse xmlns:i="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schemas.datacontract.org/2004/07/wapiGateway.Models">
  <Value>asdfkasjdfkl348jhnfdjdasfgh</Value>
</HMACResponse>
```

Field definitions

Name	Data type	Description
Value	string	The HMAC calculation value

XML complex types

AddressInfo

Sample XML Format

```
<Address>
  <Line1>string</Line1>
  <Line2>string</Line2>
  <City>string</City>
  <Region>string</Region>
  <PostalCode>string</PostalCode>
  <Country>string</Country>
</Address>
```

Field definitions

Name	Data type	Description
Line1	string	The first line of the address
Line2	string	The second line of the address
City	string	The city
Region	string	The state, province, or other regional area
PostalCode	string	The zip code/postal code
Country	string	The country

VaultTransactionRequest

A Vault Transaction Request is a child XML element that can be supplied with a transaction request to perform a Vault operation during a transaction in a single communication.

XML Format

```
<VaultTransactionRequest>
  <RequestType></RequestType>
  <Token></Token>
</VaultTransactionRequest>
```

Field definitions

Name	Data type	Description	Required
RequestType	enumeration	The type of operation being requested <ul style="list-style-type: none">• READ = Read a Vault record and use the card data for the transaction• UPDATE = Update the Vault record using the card data in the transaction• CREATE = Create a Vault record using the card data in the transaction	Yes
Token	string	The Vault record token to use during a READ or UPDATE operation	No*

VaultTransactionResponse

A Vault Transaction Response is a child XML element that can be returned with a transaction response to provide the processing results for the requested Vault operation.

XML Format

```
<VaultTransactionResponse>
  <Result></Result>
  <Token></Token>
</VaultTransactionResponse>
```

Field definitions

Name	Data type	Description
Result	enumeration	The result of operation being requested: SUCCESS = The operation was successful, FAILURE = The operation failed
Token	string	The Vault record token. For READ and UPDATE operations this is the same value provided in the request. For CREATE operations this is the newly create Vault record Token.

GatewayTransactionResponseToken

A Gateway Transaction Response Token is a child XML element that can be returned with a transaction response to provide the additional processing results for the requested transaction.

XML Format

```
<GatewayTransactionResponseToken>
  <DataId></DataId>
  <Value></Value>
</GatewayTransactionResponseToken>
```

Field definitions

Name	Data type	Description
DataId	string	The Data Identifier
Token	string	The value of the data

Data ID listing

Data ID	Description	Value
FSA	Used to indicate if the card number is in a valid FSA BIN range for Healthcare transactions.	0 = Card was not a FSA BIN 1 = Card was a FSA BIN
UTI	Used to echo a user defined request id for matching responses. This is for client/host communication protocol purposes.	The same value that was provided in the request T_UTI
PAA	If the POS indicated Partial Authorization support T_PARTIAL_AUTH in the request this, when returned, indicates a partial approval of a portion of amount requested.	The amount approved. This will be less than the amount submitted in the request T_AMT #####0.00. The remaining balance will need to be collected.

CreditCardTransaction

A CreditCardTransaction is a child XML element that can be returned in a settlement response.

XML Format

```
<CreditCardTransaction>
<Application>SPS Third Party Applications (APIs, Web Services)</Application>
<BillingAddress>
<Address>12345 Road</Address>
<City>McLean</City>
<Country></Country>
<FaxNumber></FaxNumber>
<Name>Test</Name>
<PostalCode>22102</PostalCode>
<StateRegion>VA</StateRegion>
<TelephoneNumber></TelephoneNumber>
</BillingAddress>
<Code>093355</Code>
<DeviceIdentifier>ThirdParty - 999999999990</DeviceIdentifier>
<Message>APPROVED 093355</Message>
<OrderNotes i:nil="true" />
<OrderNubmer>ID3CD7iCR8</OrderNubmer>
<Reference>B3CD7iCR70</Reference>
<SettlementDate>2013-03-12T07:55:18.603</SettlementDate>
<SettlementReference>A3CD7uI9t0</SettlementReference>
<ShippingAddress>
<Address></Address>
<City></City>
<Country></Country>
<FaxNumber i:nil="true" />
<Name></Name>
<PostalCode></PostalCode>
<StateRegion></StateRegion>
<TelephoneNumber i:nil="true" />
</ShippingAddress>
<ShippingAmount>0</ShippingAmount>
<ShoppingCartOrder i:nil="true" />
<TaxAmount>0</TaxAmount>
<TotalAmount>1</TotalAmount>
<TransactionImages />
<TransactionStatus>Settled</TransactionStatus>
<TransactionType>Sale</TransactionType>
<AddressVerificationResult>A</AddressVerificationResult>
<CardExpirationDate>0199</CardExpirationDate>
<CardNumber>411111XXXXXX1111</CardNumber>
<CardType>Visa</CardType>
<CardVerificationValueResult>M</CardVerificationValueResult>
<EntryMode>Keyed</EntryMode>
```

XML Format

```
<Level2>
<CustomerNumber></CustomerNumber>
</Level2>
<Level3 i:nil="true" />
<NetworkBatchNumber>30</NetworkBatchNumber>
<TerminalNumber>001</TerminalNumber>
</CreditCardTransaction>
```

Field definitions

Name	Data type	Description
Application	string	The software application originating the payment.
BillingAddress	complexType	Billing address information
Code	string	The approval/decline/error code
DeviceIdentifier	string	The identifier of the device using the software application originating the payment.
Message	string	The textual approval/decline/error message to be displayed on a terminal
OrderNotes	complexType	Array of OrderNote
OrderNumber	string	The merchant assigned order number for the payment
Reference	string	A unique transaction identifier generated by the Gateway
SettlementDate	datetime	The date and time the transaction was settled
SettlementReference		A unique settlement identifier generated by the Gateway
ShippingAddress	complexType	Shipping address information
ShippingAmount	decimal	The amount of shipping
ShoppingCartOrder	complexType	Shopping cart order information
TaxAmount	decimal	The amount of tax
TotalAmount	decimal	The total amount (including tax and shipping)
TransactionImages	complexType	Array of TransactionImage
TransactionStatus	string	The current status of the transaction <ul style="list-style-type: none">• Settled• Expired• Batch• Declined

Name	Data type	Description
TransactionType	string	The type of transaction <ul style="list-style-type: none"> • Sale • Authorization • Force • Capture • Void • Refund
AddressVerificationResult	string	The AVS result code
CardExpirationDate	string	The card expiration date MMY
CardNumber	string	The masked card number
CardType	string	The card type identified by the card number
CardVerificationValueResult	string	The CVV result
EntryMode	string	The mode in which the payment was entered <ul style="list-style-type: none"> • Keyed • MagStripe
Level2	complexType	Level II information
Level3	complexType	Level III information
NetworkBatchNumber	string	The batch number assigned by the settlement network
TerminalNumber	string	The Gateway terminal configuration number.

CashTransaction

A CashTransaction is a child XML element that can be returned in a report response.

XML Format

```
<CashTransaction><Application>SPS Third Party Applications (APIs, Web
Services)</Application><BillingAddress><Address>12345
Street</Address><City>McLean</City><Country>US</Country><EmailAddress
i:nil="true" /><FaxNumber>123-123-1224</FaxNumber><Name>Martin
Henderson</Name><PostalCode>22012</PostalCode><StateRegion>VA</StateRegion><Te
lephoneNumber>123-123-
1235</TelephoneNumber></BillingAddress><Code></Code><DeviceIdentifier>ThirdPar
ty -
9999999999990</DeviceIdentifier><Message>ACCEPTED</Message><NetworkResponse
i:nil="true" /><OrderNotes i:nil="true"
/><OrderNubmer>MyOrder1</OrderNubmer><Reference>WAREGd5BQ0</Reference><Settlem
entDate i:nil="true" /><SettlementReference i:nil="true"
/><ShippingAddress><Address>12345
Road</Address><City>McLean</City><Country>US</Country><EmailAddress
i:nil="true" /><FaxNumber i:nil="true" /><Name>Martin
Henderson</Name><PostalCode>22012</PostalCode><StateRegion>VA</StateRegion><Te
lephoneNumber i:nil="true"
/></ShippingAddress><ShippingAmount>0</ShippingAmount><ShoppingCartOrder
i:nil="true"
/><TaxAmount>0</TaxAmount><TotalAmount>1</TotalAmount><TransactionImages
/><TransactionStatus>Batch</TransactionStatus><TransactionType>Sale</Transacti
onType><UniqueTransactionIdentifier i:nil="true" /></CashTransaction>
```

Field definitions

Name	Data type	Description
Application	string	The software application originating the payment.
BillingAddress	complexType	Billing address information
Code	string	The approval/decline/error code
DeviceIdentifier	string	The identifier of the device using the software application originating the payment.
Message	string	The textual approval/decline/error message to be displayed on a terminal
OrderNotes	complexType	Array of OrderNote
OrderNumber	string	The merchant assigned order number for the payment
Reference	string	A unique transaction identifier generated by the Gateway
SettlementDate	datetime	The date and time the transaction was settled

Name	Data type	Description
SettlementReference		A unique settlement identifier generated by the Gateway
ShippingAddress	complexType	Shipping address information
ShippingAmount	decimal	The amount of shipping
ShoppingCartOrder	complexType	Shopping cart order information
TaxAmount	decimal	The amount of tax
TotalAmount	decimal	The total amount (including tax and shipping)
TransactionImages	complexType	Array of TransactionImage
TransactionStatus	string	The current status of the transaction <ul style="list-style-type: none"> • Settled • Expired • Batch • Declined
TransactionType	string	The type of transaction <ul style="list-style-type: none"> • Sale • Authorization • Force • Capture • Void • Refund
UniqueTransactionIdentifier	string	The user defined identifier for the cash transaction.

AccountUpdaterVaultResult

The Account Updater results of a update made to a Vault record.

XML Format

```
<AccountUpdaterVaultResult>
  <ExpirationDate></ExpirationDate>
  <GUID></GUID>
  <Last4></Last4>
</AccountUpdaterVaultResult>
```

Field definitions

Name	Data type	Description
ExpirationDate	string	The expiration date of the card number, MMY
GUID	string	The first 15 characters of the Vault record GUID
Last4	string	The last 4 digits of the card number

Appendix A

Table 1.1

ProductID	Description
A	Visa Traditional
AX	American Express
B	Visa Traditional Rewards
C	Visa Signature
D	Visa Signature Preferred
DI	Discover
DN	Diners
E	Proprietary ATM
F	Visa Classic
G	Visa Business
G1	Visa Signature Business
G3	Visa Business Enhanced Visa Platinum Business
G4	Visa Infinite Business
I	Visa Infinite
I1	Visa Infinite Privilege
J3	Visa Healthcare
JC	JCB
K	Visa Corporate T&E
K1	Visa Government Corporate T&E
L	Electron
M	MasterCard
N	Visa Platinum
N1	Visa Rewards
N2	Visa Select

ProductID	Description
P	Visa Gold
Q	Private Label
Q2	Private Label Basic
Q3	Private Label Standard
Q4	Private Label Enhanced
Q5	Private Label Specialized
Q6	Private Label Premium
R	Proprietary
S	Visa Purchasing
S1	Visa Purchasing with Fleet
S2	Visa Government Purchasing
S3	Visa Government Purchasing with Fleet
S4	Commercial Agriculture
S5	Commercial Transport
S6	Commercial Marketplace
U	Visa Travel Money
V	V PAY

Table 1.2

Code	Description
MBP	MasterCard Corporate Prepaid
MHB	MasterCard HSA Substantiated
MHH	MasterCard HSA Non-substantiated
MOC	Standard Maestro® Social
MRH	MasterCard Platinum Prepaid Travel Card
SUR	Prepaid MasterCard Unembossed Outside US

Code	Description
VIS	VisaNet
WBE	World MasterCard Black Edition
TCF	MasterCard Fleet Card—Immediate Debit
TCG	Gold MasterCard Card—Immediate Debit
TCO	MasterCard Corporate—Immediate Debit
TCP	MasterCard Purchasing Card—Immediate Debit
TCS	MasterCard Standard Card—Immediate Debit
TCW	World Signia MasterCard Card—Immediate Debit
TEC	MasterCard Electronic Commercial—Immediate Debit
TCE	ISIC MasterCard Electronic Student Card—Immediate Debit
TNF	MasterCard Public Sector Commercial Card—Immediate Debit
TNW	MasterCard New World—Immediate Debit
TPB	MasterCard Preferred Business Card—Immediate Debit
TCB	MasterCard Professional Card—Immediate Debit
TPL	Platinum MasterCard—Immediate Debit
MSB	Maestro Small Business Card
MSF	Prepaid Maestro Gift Card
MSG	Prepaid Maestro Consumer Reloadable Card
MSI	Maestro Card
MSJ	Prepaid Maestro Gold
MSM	Maestro Prepaid Consumer Promotion Card
MSN	Maestro Prepaid Insurance Card
MSO	Maestro Prepaid Other Card
MSR	Prepaid Maestro Travel Card
MST	Prepaid Maestro Teen Card
MSV	Prepaid Maestro Government Benefit Card

Code	Description
MSW	Prepaid Maestro Corporate Card
MSX	Prepaid Maestro Flex Benefit Card
MSY	Prepaid Maestro Employee Incentive Card
MSZ	Prepaid Maestro Emergency Assistance Card
MUW	MasterCard World Domestic Affluent
MWB	World MasterCard for Business Card
MWE	World Elite MasterCard Card
MWO	World Elite MasterCard Corporate Card
OLB	Maestro Small Business—Delayed Debit
OLG	Maestro Gold—Delayed Debit
OLP	Maestro Platinum—Delayed Debit
OLS	Maestro—Delayed Debit
OLW	World Maestro Delayed Debit
PMC	Proprietary Credit Card (Sweden Domestic)
PMD	Proprietary Debit Card (Sweden Domestic)
PSC	Common Proprietary Swedish Credit Card
PSD	Common Proprietary Swedish Debit Card
PVA	Private Label A
PVB	Private Label B
PVC	Private Label C
PVD	Private Label D
PVE	Private Label E
PVF	Private Label F
PVG	Private Label G
PVH	Private Label I
PVI	Private Label J

Code	Description
PVJ	Private Label L
PVL	Private Label
SOL	UK Domestic Solo brand
SWI	UK Domestic Switch brand
TBE	MasterCard Electronic Business—Immediate Debit
TCB	MasterCard Business Card—Immediate Debit
TCC	MasterCard (mixed BIN)—Immediate Debit
TCE	MasterCard Electronic—Immediate Debit
MIP	Prepaid Debit MasterCard Student Card
MIU	Debit MasterCard Unembossed (Non-U.S.)
MNF	MasterCard Public Sector Commercial Card
MNW	MasterCard World Card
MOG	Maestro Gold Card
MOP	Maestro Platinum
MOW	World Maestro
MPA	MasterCard Prepaid Debit Standard-Payroll
MPB	MasterCard Preferred Business Card
MPF	MasterCard Prepaid Debit Standard-Gift
MPG	Prepaid MasterCard Unembossed Student Card
MPH	MasterCard Cash
MPJ	Prepaid Debit MasterCard Card Gold
MPL	Platinum MasterCard Card
MPK	MasterCard Prepaid Government Commercial Card
MPM	MasterCard Prepaid Debt Standard-Consumer Incentive
MPN	MasterCard Prepaid Debit Standard-Insurance
MPO	MasterCard Prepaid Debit Standard-Other

Code	Description
MPP	MasterCard Prepaid Card
MPR	MasterCard Prepaid Debit Standard-Travel
MPT	MasterCard Prepaid Debit Standard-Teen
MPV	MasterCard Prepaid Debit Standard-Government
MPW	Debit MasterCard BusinessCard Prepaid Workplace Business to Business
MPX	MasterCard Prepaid Debit Standard-Flex Benefit
MPY	MasterCard Prepaid Debit Standard-Employee Incentive
MPZ	MasterCard Prepaid Debit-Government Consumer
MRC	Prepaid MasterCard Electronic Card (Non-U.S.)
MRG	MasterCard Prepaid Card (Non-U.S.)
MRJ	Prepaid MasterCard Gold Card
MRK	Prepaid MasterCard Public Sector Commercial Card
MRO	MasterCard Rewards Only
MRW	Prepaid MasterCard Business Card (Non-U.S.)
MSA	Prepaid Maestro Payroll Card
MDG	Gold Debit MasterCard Card
MDH	World Debit MasterCard Card
MDJ	Debit Other 2 Embossed
MDL	Business Debit Other Embossed
MDO	Debit Other
MDP	Platinum Debit MasterCard Card
MDR	Debit Brokerage
MDS	Debit MasterCard Card
MDT	Commercial Debit MasterCard Card
MEC	MasterCard Electronic Commercial

Code	Description
MEF	MasterCard Electronic Payment Account
MFB	Flex World Elite
MFD	Flex Platinum
MFE	Flex Charge World Elite
MFH	Flex World
MFL	Flex Charge Platinum
MFW	Flex Charge World
MGF	MasterCard Government Commercial Card
MHA	MasterCard Healthcare Prepaid Non-Tax
MIA	Prepaid MasterCard Unembossed Student Card
MBD	MasterCard Professional Debit Business Card
MBE	MasterCard Electronic Business Card
MBK	MasterCard Black Card
MCB	MasterCard BusinessCard Card
MCC	MasterCard Credit Card (mixed BIN)
MCD	Debit MasterCard Card
MCE	MasterCard Electronic Card
MCF	MasterCard Fleet Card
MCG	Gold MasterCard Card
MCO	MasterCard Corporate Card
MCP	MasterCard Purchasing Card
MCS	Standard MasterCard Card
MCT	Titanium MasterCard Card
MCV	Merchant-Branded Program
MCW	World MasterCard Card
MDB	Debit MasterCard BusinessCard Card

Code	Description
CIR	Cirrus
DLG	Debit MasterCard Gold—Delayed Debit
DLH	Debit MasterCard World Embossed—Delayed Debit
DLP	Debit MasterCard Platinum—Delayed Debit
DLS	Debit MasterCard Card—Delayed Debit
MAB	World Elite MasterCard for Business Card
MAC	MasterCard World Elite Corporate Card