Payvision Payment Processor

Technical Integration

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@ Payvision

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INTRODUCTION

1.1 Abstract

This document provides a detailed description about the different features and interfaces included in the Payvision Payment Processor.

1.2 Audience

This paper provides a starting point for technology professionals or developers who are looking for technical information about integrating the Payvision Payment platform into their applications.

Familiarity with web development techniques is assumed.

1.3 Contact Information

http://www.payvision.com

Payvision Spain, S.L. Cañada Real de Merinas, 17. Edificio 5-4D 28042 Madrid Spain

Financial questions: FinancialSupport@payvision.com
Technical questions: TechnicalSupport@payvision.com
Sales questions: SalesSupport@payvision.com

If you have any suggestions or remarks about this document please contact the author of the document.

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2 How To Start

In order to integrate with Payvision it is not necessary to integrate all the functionality exposed. Therefore it is important to understand the different processor operations and web services available prior to start the integration in order to decide the features you will need. Be sure to have received with this document the Appendix corresponding to the acquirer you will use. The appendix contains valuable information about specific features and result codes supported by the acquirer.

The first decision is to **choose the web services.** Payvision has a <u>Basic Operations Web Service</u>, which provides all the basic functionality you need to start processing transactions. Aside Basic Operations you have extended web services to provide additional and specific features like ThreeDSecureOperations or AirlineOperations. To view the complete list, check the <u>Interfaces</u> section.

Once you know which web services fit better for your requirements, it is necessary to **decide the flow used to collect the money from card holders**. This can be done in two different ways: doing a one step operation called Payment, or in two steps using Authorize and Capture operations. To know more about this, check the section <u>Processor Operations Description</u>.

The next step is to **select the protocol** you will use to connect the web service. Payvision supports SOAP and HTTP POST requests; you can find detailed information and the samples Payvision has available in the section Protocols Supported.

The last step prior to go live is to complete the **certification** with Payvision. The certification is a fast process that can be completed in a couple of minutes; it consists of sending some test transactions that will differ based on the features you will use in the live environment. Payvision will monitor these transactions to check the information is received as expected.

When you are done with the integration let Payvision know at <u>TechnicalSupport@payvision.com</u> the web services and authorization flow you want to use live, with this information Payvision will prepare and send you the test cases and will enable the traces in the server.

To help you with your planning you should know that the average time to complete the integration and certification process is two days.



3 PROCESSOR OPERATIONS DESCRIPTION

This section provides a functional overview of the operations that Payvision Payment Processor supports for processing card transactions:

- Authorize
- Capture
- Void
- Payment
- Refund
- Credit
- Card Fund Transfer
- Referral Approval

3.1 Authorize

The authorize operation allows the merchant to book the desired money from the card that will be invoiced. This is the preferred method since it provides the bank authorization to collect the money from the customer, but without collect it immediately.

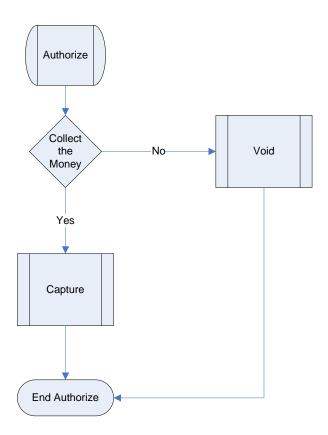
This operation has two-steps and must be always completed by voiding the transaction or capturing, the completion can be done within an average time of 20 days.

If the capture is not performed the Payvision Engine will purge authorizations older than 20 days. This means that you will not be able to capture authorizations after they are purged.

If you don't execute a Void operation the money of purged authorizations will be **blocked for the card until the issuer bank releases it**. To avoid it call always the Void method.



Next you can see a flow diagram for the completion of an Authorize operation.



3.2 Capture

The Capture operation consists of collecting the money from authorizations previously done.

Normally a Capture is performed for the total amount of the transaction but it might be possible to capture only part of the money reserved¹.

Note: Only one Capture operation can be performed per Authorization.

-

¹ This feature depends on the acquiring bank. Please ask your sales contact to know if your acquirer allows partial captures.



3.3 **Void**

The Void operation is used to avoid collecting the money from authorizations previously done. This releases the money blocked from the credit card without collecting it.

The void can only be performed for the total amount of the **Authorization**, if exists a Capture or Partial Capture the Void operation will not be performed.

3.4 Payment

This is the easiest way to bill an amount over a card.

The Payment operation collects immediately the amount desired. This is the equivalent of doing an authorization and capture all at once.

3.5 Refund

The Refund operation, as its name states, consists of returning the money already collected by a **Payment** or a **Capture** transaction.

The amount collected can be refunded in total or partially². You cannot refund amounts bigger than the one sent in the original transaction.

Refund can only be performed if a customer has not initiated a chargeback procedure. In this case you must dispute the chargeback according to the standard procedure provided by the Sales SalesSupport@payvision.com or Financials FinancialSupport@payvision.com departments.

Note: You can perform multiple refunds until reach the total amount of the original Payment or Capture.

3.6 Credit

The Credit operation allows refunding to the card holder. The main difference with a Refund operation is that it is a stand-alone operation; this means a Credit does not need to match a prior Payment or Capture.

Please, see next point for crediting 7995 accounts.

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² Please ask your sales contact to know if your acquiring bank allows partial refunds.



3.7 Card Fund Transfer

The card fund transfer is the ability to transfer money from a merchant account to a cardholder account and is limited to 7995 coded (gambling) accounts.

The amount that can be transferred is not limited by the amount collected in the first place.

NOTE: This operation can only be used to transfer money to cards that have been already used to perform a Capture or Payment in the same merchant account.

3.8 Referral Approval

During an Authorize or Payment it's possible that a transaction is not declined nor approved, but you get a Referral. The most common case for this error includes large transactions.

When a "Referral" occurs the bank requires an extra authorization via telephone as an additional security measure. The procedure to follow in order to get your transaction approved, consists of calling the Authorization Center and obtaining an Approval Code, after which you will need to perform a "Referral Approval" request to Payvision (see point 4.2.1.6).

This feature is not available for all acquiring banks; please contact Sales <u>SalesSupport@payvision.com</u> to know the specific procedure to follow with each acquiring bank.



4 INTERFACES

In order to facilitate the integration with the Payvision Payment Processor several interfaces have been created. This provides the flexibility to integrate all the features for big customers or a reduced set of it for customers with fewer requirements.

This section describes exactly how to process transactions through the Processor using the different published interfaces.

4.1 Protocols Supported

The Payvision Payment Processor functionality is published via Web Services that can be accessed using the next protocols:

- Soap 1.1
- Soap 1.2
- HTTP Post

All communications between customers and Payvision are encrypted with SSL.

Payvision encourages the use of SOAP as the protocol to communicate with our web services. Using a SOAP toolkit dramatically reduces the development from a front-end perspective, since you don't need to deal with XML or HTTP, but just instantiate objects and call methods on them. More information about SOAP can be found at:

- Full SOAP specification W3 http://www.w3.org/TR/soap/
- Microsoft Web Services http://msdn2.microsoft.com/webservices
- Java Toolkit http://ws.apache.org/soap/index.html
- Perl Toolkit http://www.soaplite.com/

All the web services are enabled to provide the WSDL necessary to build SOAP requests; in addition all operations provide an informational page with details about how to build the SOAP and HTTP POST requests. You can find the exact URL for each page in the description of the web methods.



4.1.1 **SOAP Requests**

Payvision can provide you with complete samples for PHP, Perl and JAVA. If you want any of these samples, please request them at TechnicalSupport@payvision.com

4.1.2 HTTP POST Requests

This section helps you to interpret the details you can find in the informational pages commented above.

Next you can see the details displayed for a **Payment HTTP POST request** and that can be accessed at the URL: https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?

HTTP POST

The following is a sample HTTP POST request and response. The **placeholders** shown need to be replaced with actual values.

```
POST /gateway/basicoperations.asmx/Payment HTTP/1.1
Host: testprocessor.payvisionservices.com
Content-Type: application/x-www-form-urlencoded
Content-Length: length

memberId=string&memberGuid=string&countryId=string&amount=string&currency
Id=string&trackingMemberCode=string&cardNumber=string&cardHolder=string&cardExpiryMonth=string&cardExpiryYear=string&cardCvv=string&cardType=string&issueNumber=string&merchantAccountType=string&dynamicDescriptor=string&avsAddress=string&avsZip=string
```

After review the above information you can see:

- How to build the URL: The relative URL to process the Payment operation must be "/gateway/basicoperations.asmx/Payment". Therefore the full URL in this case is https://testprocessor.payvisionservices.com/gateway/basicoperations.asmx/Payment
- The protocol: "HTTP/1.1"
- The request headers:
 - "Content-Type" must be set to "application/x-www-formurlencoded"
 - "Content-Length" must be set to the length in byte of the request parameters.
- The request parameters: memberId=string&memberGuid=string....



Each placeholder, displayed in blue, needs to be replaced with the current value of the parameter.

Note: Optional parameters must be set with an empty value if not required.

4.2 Gateway Web Service

The Gateway Web Service provides several interfaces based on the features supported.

<u>BasicOperations</u>: Contains all the basic features required to start processing transactions.

<u>FraudScrubOperations</u>: Contains methods which allow performing fraud scrubbing when sending authorizations and payments.

<u>RecurringOperations</u>: This interface is intended for members who don't want to store themselves the credit cards of their users.

<u>MultiMerchantOperations</u>: Contains methods which allow selecting the exact merchant account you want to use to process the transactions. This is intended for members who have one company with several merchant accounts with the same characteristics.

<u>ThreeDSecureOperations</u>: This web service provides extended methods to receive 3D secure information from an external MPI or to use the integrated Payvision MPI.

<u>AirlineOperations</u>: This interface is intended for airline companies who require sending additional flight information.

4.2.1 BasicOperations

This interface is ideal for customers who don't have special requirements and want to start sending transactions as fast as possible.

The starting point for this Web Service is to navigate to its URL:

https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx

The page displays a list of the available methods that can be called and also provides a link to the <u>WSDL description</u> of the Web Service.

In addition, this is the URL where transactions must be posted during testing and integration process.

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The next points describe all the methods supported through the BasicOperations Web Service.

4.2.1.1 Authorize

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?

The next table describes the request parameters to perform an Authorize.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional



			depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if
			are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.1.2 **Capture**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
transactionId	Int	Yes	Id obtained with an Authorize transaction.
transactionGuid	string	Yes	Guid obtained with an Authorize transaction.
amount	Decimal	Yes	Amount that will be captured. This amount cannot be bigger than the original amount Authorized. Ask your sales agent if your acquiring bank supports partial Capture. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.

4.2.1.3 **Void**

Description about how to build requests for this method using the different protocols supported can be found at $\frac{\text{https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?}}{\text{op=Void}}$

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
transactionId	Int	Yes	Id obtained with an Authorize



			transaction.
transactionGuid	string	Yes	Guid obtained with an Authorize transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.

4.2.1.4 Payment

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? op=Payment

The next table describes the request parameters to perform a Payment operation.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.



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cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, Mastercard, Switch, Visa credit, Diners, EnRoute, Discover, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



4.2.1.5 **Refund**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? op=Refund

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
transactionId	Int	Yes	Id obtained with a Payment or Capture transaction.
transactionGuid	string	Yes	Guid obtained with a Payment or Capture transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.

4.2.1.6 ReferralApproval

This method allows approving a Payment or Authorize that was referred.

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision
			and is used to authenticate a



			merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
transactionId	Int	Yes	Id obtained with an Authorize or Payment transaction.
transactionGuid	string	Yes	Guid obtained with an Authorize or Payment transaction.
amount	Decimal	Yes	Amount of the original transaction. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the original transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
ApprovalCode	String	Yes	Approval code obtained calling the Authorization Center.

4.2.1.7 **Credit**

Description about how to build requests for this method using the different protocols supported can be found at $\frac{\text{https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?}}{\text{op=Credit}}$

The next table describes the request parameters to perform a Credit operation.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.

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amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 – Recurring



dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.1.8 CardFundTransfer

This method allows transferring funds to a credit cardholder. It is intended exclusively for gambling accounts and it's not supported by all the acquiring banks.

 $\frac{https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx?}{op=CreditFundTransfer}$

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.



	T.	Г	T
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



4.2.1.9 RetrieveTransactionResult

This method allows you retrieving the result of a transaction sent previously.

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? op=RetrieveTransactionResult

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
trackingMemberCode	string	Yes	This value is the order number or tracking code of the transaction for which you want to retrieve the stored result.
transactionDate	DateTime	Yes	UTC Date in which the transaction was processed by Payvision. Time is ignored.

4.2.2 FraudScrubOperations

This interface provides additional Authorize and Payment methods which allow performing fraud scrub. The web service is only intended for merchants with very high risk customers and has an extra fee that needs to be agreed with your sales or account manager.

The transaction result will inform you if you must void or refund the transaction based on neural engines, which detect the probability that the transaction sent can be a fraud. The more information you provide, the best results will be obtained from the fraud detection engines.

4.2.2.1 Authorize

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/FraudScrubOperations.asmx?op=Authorize



The next table describes the request parameters to perform an Authorize supporting fraud scrubbing.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa,



			VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are: 1 - E-Commerce 2 - Mail Order / Telephone order 4 - Recurring
dynamicDescriptor	String	No	Review the Appendix of your acquirer, provided separately, to know how to format this parameter.
general	GeneralInfomati on	No	This parameter is a complex type that contains properties embedded. Please see point 4.2.2.3.1
customer	CustomerInform ation	No	This parameter is a complex type that contains properties embedded. Please see point 4.2.2.3.2
ship	ShipInformation	No	This parameter is a complex type that contains properties embedded. Please see point 4.2.2.3.3

4.2.2.2 Payment

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/FraudScrubOperations.a smx?op=Payment

The next table describes the request parameters to perform a Payment operation.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision
			and is used to authenticate a



			merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.



merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are: 1 - E-Commerce 2 - Mail Order / Telephone order 4 - Recurring
dynamicDescriptor	String	No	Review the Appendix of your acquirer, provided separately, to know how to format this parameter.
general	FraudScrubInf omation	No	This parameter is a complex type that contains properties embedded. Please see below.
customer	CustomerInfor mation	No	This parameter is a complex type that contains properties embedded. Please see below.
ship	ShipInformati on	No	This parameter is a complex type that contains properties embedded. Please see below.

4.2.2.3 Complex types description

4.2.2.3.1 **GeneralInformation**

Name	Туре	Length	Required	Description
OrderId	String	16	Yes	Order reference. Unique for purchase attempt
ProductCode	String	3	Yes	Product delivery code. Allowed values:
				CNC (Cash and carry)
				DCT (Digital content)
				DIG (Digital goods)
				DNP (Digital and physical)
				GFT (Gift certification)
				PHY (Physical goods)
				REN (Renewals and recharges)
				SHW (Shareware)
				SVC (Service)
CustomerType	String	1	Yes	Customer type code. Allowed values:



				B (bill to)
				C (ship to recipient)
ShippingMethod	String	1	Yes	Allowed values:
				C (Lowest cost)
				D (Carrier designated by customer)
				I (International)
				M (Military)
				N (Next Day / Overnight)
				O (other)
				P (Store pickup)
				T (Two day service)
				W (Three day service)
Gmt	String	3	Yes	System time zone. Represents the difference in hours with the UTC. The value must be between -12 and +12
WebSite	String	60	No	Website from which the purchase was made.

4.2.2.3.2 **CustomerInformation**

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Name	Туре	Length	Required	Description
Id	String	16	No	Customer identifier
FirstName	String	30	No	First name
LastName	String	30	No	Last name
MiddleName	String	1	No	Middle initial
DateOfBirth	String	10	No	Birth date format: YYYYMMDD
Ssn	String	9	No	Social security number
Email	String	45	No	Email address
HomePhone	String	12	No	Customer home phone. Format: AAAEEENNNNXXXX, AAA Area Code, EEE Exchange, NNNN Number, XXXX Extension
WorkPhone	String	12	No	Customer work phone. Format: AAAEEENNNNXXXX, AAA Area Code, EEE Exchange, NNNN Number, XXXX Extension
AddressLine1	String	30	No	Address line 1



AddressLine2	String	30	No	Address line 2
ApartmentNumber	String	6	No	Apartment number
City	String	20	No	City
State	String	2	No	State or Province
Zip	String	9	No	Zip code
Country	String	3	No	Customer country code (ISO numeric code)
IPAddress	String	45	No	IP address of the customer's host. Format NNN.NNN.NNN.NNN

4.2.2.3.3 **ShipInformation**

Name	Туре	Length	Required	Description
Id	String	16	No	Ship customer identifier
FirstName	String	30	No	First name
LastName	String	30	No	Last name
MiddleName	String	1	No	Middle initial
Email	String	45	No	Email address
HomePhone	String	14	No	Home phone. Format: AAAEEENNNNXXXX, AAA Area Code, EEE Exchange, NNNN Number, XXXX Extension
AddressLine1	String	30	No	Address line 1
AddressLine2	String	30	No	Address line 2
ApartmentNumber	String	6	No	Apartment number
City	String	20	No	City
State	String	2	No	State or Province
Zip	String	9	No	Zip code
Country	String	3	No	Three letter ISO country code

4.2.3 **RecurringOperations**

NOTE: Recurring transactions can be sent through the web service BasicOperations using the parameter merchantAccountType set to 4.



The RecurringOperations web service is only intended in the case you do not want to store the credit card information yourself.

Authorize and Payment methods allow performing transactions without sending the card details; instead you can send a cardId and cardGuid obtained from Payvision.

The cardId and Guid can be obtained in two ways:

- When you perform a transaction: the Payvision engine returns the CardId and CardGuid used for the transaction in the Cdc (see 3.2.5.2)
- Explicitly calling the method RegisterCard.

4.2.3.1 RegisterCard

This method allows you to register credit cards in the Payvision System to be used later on.

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/RecurringOperations.as mx?op=RegisterCard

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
number	String	Yes	Card holder account number.
holder	String	Yes	Card holder name as it appears in the card.
expiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
expiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover,



EnRoute, JCB, Solo and Laser.
You only need to send this value if
are going to use a different card
type. See Appendix A for a list of
valid values.

4.2.3.1.1 **Responses**

The RegisterCard function response differs from the rest of operations in the Gateway. The values returned are:

Name	Туре	Description		
Result	Int	This value indicates if the card was successfully registered or not. A 0 means Ok, different than 0 means error.		
Message	String	Friendly message indicating the result of the card registration		
CardId	Int	Identifier of the card to be used on Authoriz and Payment operations		
CardGuid	Guid	GUID of the card to be used on Authorize and Payment operations.		

4.2.3.2 Authorize

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/RecurringOperations.as mx?op=Authorize

The next table describes the necessary parameters to perform authorizations without send the card details.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.



amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardId	Int	Yes	Card identifier obtained previously.
cardGuid	String	Yes	Card Guid obtained previously.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are: 1 - E-Commerce 2 - Mail Order / Telephone order 4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.3.3 Payment

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/RecurringOperations.as mx?op=Payment

The next table describes the request parameters to perform a Payment operation without send the card details.



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardId	Int	Yes	Card identifier obtained during a RegisterCard operation
cardGuid	String	Yes	Card Guid obtained during a RegisterCard operation
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



4.2.3.4 **Credit**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/RecurringOperations.as mx?op=Credit

The next table describes the request parameters to perform a Credit operation without send the card details.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardId	Int	Yes	Card identifier obtained during a RegisterCard operation
cardGuid	String	Yes	Card Guid obtained during a RegisterCard operation
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 - Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer,



			provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.3.5 CardFundTransfer

This method allows transferring funds to a credit cardholder. It is intended exclusively for gambling accounts and it's not supported by all the acquiring banks.

 $\frac{https://testprocessor.payvisionservices.com/Gateway/RecurringOperations.}{asmx?op=CreditFundTransfer}$

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardId	Int	Yes	Card identifier obtained during a RegisterCard operation



cardGuid	String	Yes	Card Guid obtained during a RegisterCard operation
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.4 MultiMerchantOperations

MultiMerchantOperations provides extended Authorize and Payment methods, which allow a granular control over the merchant account that will be used to process the transactions.

This interface is intended for customers who have several merchant accounts across different acquirers with identical characteristics grouped under the same member id.

Note: This web service is not intended for resellers.

4.2.4.1 Authorize

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Description about how to build requests for this method using the different protocols supported can be found at $\frac{\text{https://testprocessor.payvisionservices.com/Gateway/MultiMerchantOperation}}{\text{s.asmx?op=Authorize}}$

The next table describes the necessary parameters to perform authorizations without send the card details.



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
merchantAccountId	Int	Yes	Identifier of the merchant account used to process the Authorize. This value is provided by Payvision on request.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover,



			EnRoute, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.4.2 **Payment**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/MultiMerchantOperations.asmx?op=Payment

The next table describes the request parameters to perform a Payment operation without send the card details.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
merchantAccountId	Int	Yes	Identifier of the merchant account used to process the Payment. This value is provided by Payvision on request.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country



	1		comes the transaction.
	Dasimal	Vas	
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to



			check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.4.3 **Credit**

Description about how to build requests for this method using the different protocols supported can be found at $\frac{\text{https://testprocessor.payvisionservices.com/Gateway/MultiMerchantOperation}}{\text{s.asmx?op=Credit}}$

The next table describes the request parameters to perform a Credit operation without send the card details.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
merchantAccountId	Int	Yes	Identifier of the merchant account used to process the Credit. This value is provided by Payvision on request.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.



cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.4.4 CardFundTransfer

This method allows transferring funds to a credit cardholder. It is intended exclusively for gambling accounts and it's not supported by all the acquiring banks.

 $\frac{https://testprocessor.payvisionservices.com/Gateway/MultiMerchantOperations.asmx?op=CreditFundTransfer}{ons.asmx?op=CreditFundTransfer}$



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
merchantAccountId	Int	Yes	Identifier of the merchant account used to process the CardFundTransfer. This value is provided by Payvision on request.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover,



			EnRoute, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.5 ThreeDSecureOperations

ThreeDSecureOperations provides extended Authorize and Payment methods to support 3D secure enabled transactions.

To obtain more information about 3D secure you can visit the following links:

https://usa.visa.com/merchants/risk management/vbv.html
http://www.mastercard.com/us/personal/en/cardholderservices/securecode

In order to authenticate 3D secure transactions, merchants must use a piece of software called Merchant Plugin (MPI). The MPI is used to perform browser based redirects from the customer's browser to complete the 3D trust model.

The Payvision Gateway supports two different models to send 3D secure transactions:

- Using the integrated Payvision MPI. This option is intended for merchants who do not own an MPI.
- Using an external MPI. This option is intended for merchants who have their own MPI or have an existing relationship with a third party MPI.



4.2.5.1 Using Payvision Integrated MPI

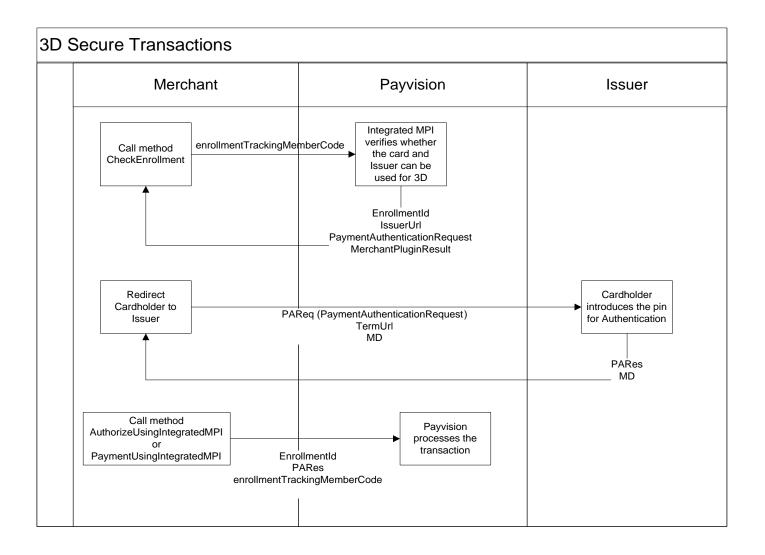
When using the Payvision Integrated MPI it is necessary to complete the transactions in different steps:

- 1. CheckEnrollment: The check enrollment method is used to check whether the submitted card can be used for a 3D transaction. If the issuer and the card are enrolled for the 3D program, then this method returns the necessary values to complete the authentication.
- 2. The result returned by the method CheckEnrollment will allow you to determine whether the card can be used with 3D authentication.
 - a. If card and issuer are enrolled. You need to redirect the card holder to the Issuing Access Control Server for card holder authentication.
 - b. If issuer or card is not enrolled. You can decide to assume the liability and submit the transaction without 3D authentication or not send the transaction.
- 3. Submit an Authorize or Payment to Payvision providing the values obtained from CheckEnrollment and the Issuing Access Control Server.
- 4. The last step is done transparently for merchants. Payvision will perform the authentication of the transaction using the values provided and will send the transaction to the acquirer. It might be possible that if for any reason the transaction cannot be authenticated, by default Payvision will process the transaction without 3D. If you do not want Payvision to process the transaction without 3D, Payvision can change the default behavior. To do it, you will need to indicate to sales or technical support what cases from the table below you want Payvision declines.

Case	Description
0	Verification of the enrollment data received fails.
1	3D Secure attempted authentication. Merchant has the liability.
2	3D Secure attempted authentication. Issuer has the liability.

Below you can see a diagram of the required steps to process a 3D transaction.





4.2.5.1.1 CheckEnrollment

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/ThreeDSecureOperations.asmx?op=CheckEnrollment

The next table describes the request parameters to execute the method CheckEnrollment.



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007

The table below shows the different fields returned by the method CheckEnrollment.

Name	Туре	Description			
Result	Int	This value indicates if the operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.			
Message	String	Friendly message indicating the result of the check enrollment.			
TrackingMemberCode	String	TrackingMemberCode sent in the request echoed back.			
EnrollmentId	Int	Payvision Id of the CheckEnrollment operation.			



IssuerUrl	String	A string containing the Access Control Server URL where the merchant needs to redirect the card holder for card authentication.
PaymentAuthenticatio nRequest	String	Encoded authentication request that needs to be sent to the Access Control Server during card holder redirection.
DateTime	DateTime	Date time in which the request was processed by Payvision.
Cdc	CdcEntryList	The information contained in this field is variable and depends on several factors. Read the point <u>Cdc</u> <u>structure</u> for more information.

The next table contains the information contained in the Cdc entry called "MerchantPluginInformation".

Name	Description	
MerchantPluginResult	Result code obtained from the MPI:	
	Y – Successful authentication (Issuer liability)	
	N - Failed authentication (Merchant liability)	
	U – Unable to complete authentication (Merchant liability)	
MerchantPluginCode	Specific result code forwarded from the MPI	
MerchantPluginMessage	Specific result message forwarded from the MPI	

4.2.5.1.2 Card Holder Redirection

If you get a successful result from CheckEnrollment you need to redirect the card holder to a URL where he will authenticate and therefore authorize the transaction. To do this, it is necessary to build an HTML form that will be submitted to the IssuerUrl obtained during CheckEnrollment.

The HTML form must be built including the next fields.

Name	Description
PaReq	PaymentAuthenticationRequest field obtained during CheckEnrollment.
TermUrl	The fully qualified URL of the merchant webpage. Issuer will redirect the cardholder to this page after she completes the authentication. This page will receive also the information required to complete the transaction calling one of the next two methods: AuthorizeUsingIntegratedMPI



	PaymentUsingIntegratedMPI		
MD	Merchant custom data. This value will be echoed back to the TermUrl when the card holder completes the authentication against the Access Control Server. This parameter is not required and can be sent as empty.		

Below you can see an example about how to build the HTML form to redirect the card holder to the ACS url.

```
<html>
  <head>
   <title>3-D Secure Example</title>
  </head>
  <script type="text/javascript">
   function OnLoadEvent()
        // Make the form post as soon as it has been loaded.
        document.theForm.submit();
    }
  </script>
  <body onload="OnLoadEvent();">
   >
   If your browser does not start loading the page,
   press the button below.
   You will be sent back to this site after you
    authorize the transaction.
   <form name="TestForm" method="post"</pre>
      action="http://www.ACSUrlObtained.com">
      <button type=submit>Click Here
      <input type="hidden" name="PaReq"</pre>
        value="PaymentAuthenticationRequest" />
      <input type="hidden" name="TermUrl" value="Your URL" />
      <input type="hidden" name="MD" value="Your data" />
   </form>
   </body>
 </html>
```

The TermUrl provided during the redirection will receive two post parameters:

- MD: Merchant data echoed back.
- PaRes: Payer authentication response. This value needs to be sent when you call AuthorizeUsingIntegratedMPI or PaymentUsingIntegratedMPI as the payerAuthenticationResponse parameter.



4.2.5.1.3 AuthorizeUsingIntegratedMPI

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/ThreeDSecureOperations.asmx?op=AuthorizeUsingIntegratedMPI

The next table describes the request parameters to perform an Authorize.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your



			acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
enrollmentId	Int	Yes	Identifier obtained from the method CheckEnrollment.
enrollmentTrackingMem berCode	String	Yes	EnrollmentTrackingMemberCode used during the CheckEnrollment.
payerAuthenticationRes ponse	String	No	Value obtained from the Access Control Server after card holder redirection. If this value is not sent, the transaction will be processed without 3D secure.

The Cdc is a field returned as part of the result of any operation. This field contains variable information. Read the point <u>Cdc structure</u> for more information.

Payments that have been sent using the integrated MPI contain an additional entry in the Cdc list called "MerchantPluginInformation".

This entry provides the next information:

Name	Description	
OperationResult	Determines the result of the authentication. 0 means ok, 3000 the authentication has been rejected. Any other result means an error during the operation.	
MerchantPluginResult	Result code obtained from the MPI:	
	Y – Successful authentication (Issuer liability)	
	A – Successful attempted authentication (Issuer liability)	
	N – Failed authentication (Merchant liability)	
	U – Unable to complete authentication (Merchant liability)	
MerchantPluginCode	Specific result code forwarded from the MPI	
MerchantPluginMessage	Specific result message forwarded from the MPI	

4.2.5.1.4 PaymentUsingIntegratedMPI

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In order to check about how to build requests for this method using the different protocols supported you can visit the next URL: https://testprocessor.payvisionservices.com/Gateway/ThreeDSecureOperations.asmx?op=PaymentUsingIntegratedMPI



The next table describes the request parameters to perform a Payment.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are: 1 - E-Commerce 2 - Mail Order / Telephone order 4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to



			check how to format this parameter.
enrollmentId	Int	Yes	Identifier obtained from the method CheckEnrollment.
enrollmentTrackingMem berCode	String	Yes	EnrollmentTrackingMemberCode used during the CheckEnrollment.
payerAuthenticationRes ponse	String	No	Value obtained from the Access Control Server after card holder redirection. If this value is not sent, the transaction will be processed without 3D secure.

The Cdc is a field returned as part of the result of any operation. This field contains variable information. Read the point <u>Cdc structure</u> for more information.

Payments that have been sent using the integrated MPI contain an additional entry in the Cdc list called "MerchantPluginInformation".

This entry provides the next information:

Name	Description			
OperationResult	Determines the result of the authentication. 0 means ok, 3000 the authentication has been rejected. Any other result means an error during the operation.			
MerchantPluginResult	Result code obtained from the MPI:			
	Y – Successful authentication (Issuer liability)			
	A – Successful attempted authentication (Issuer liability)			
	N – Failed authentication (Merchant liability)			
	U – Unable to complete authentication (Merchant liability)			
MerchantPluginCode	Specific result code forwarded from the MPI			
MerchantPluginMessage	Specific result message forwarded from the MPI			

4.2.5.2 Using External MPI

4.2.5.2.1 **Authorize**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/ThreeDSecureOperations.asmx?op=Authorize

The next table describes the request parameters to perform an Authorize.



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card



			type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 - Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
xid	String	No	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationValue	String	No	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationIndicator	String	Yes	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.5.2.2 **Payment**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/BasicOperations.asmx? op=Payment

The next table describes the request parameters to perform a Payment operation.



Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of



			valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 - Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
xid	String	No	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationValue	String	No	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationIndicator	String	Yes	Review the Appendix of your acquirer, provided separately, to check how to format this parameter.

4.2.6 Airline Operations

This web service provides extended Authorize and Payment methods to support passenger transport general ticket information.

4.2.6.1 Authorize

Description about how to build requests for this method using the different protocols supported can be found at



 $\frac{https://testprocessor.payvisionservices.com/Gateway/AirlineOperations.asmx}{?op=Authorize}$

The next table describes the common parameters to perform an Authorize. Check the point <u>Specific Airline parameters</u> for the rest of parameters.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on



			the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are: 1 - E-Commerce 2 - Mail Order / Telephone order
	0		4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
xid	String	No	This parameter is intended for transactions using 3D secure. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationValue	String	No	This parameter is intended for transactions using 3D secure. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationIndicator	String	Yes	This parameter is intended for transactions using 3D secure. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



4.2.6.2 **Payment**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/AirlineOperations.asmx?op=Payment

The next table describes the common parameters to perform a Payment. Check the point <u>Specific Airline parameters</u> for the rest of parameters.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional



			depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser.
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 - E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
avsAddress	String	No	Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
avsZip	String	No	Zip Code for AVS verification.
			Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
xid	String	No	This parameter is intended for transactions using 3D secure. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
authenticationValue	String	No	This parameter is intended for transactions using 3D secure. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



authenticationIndicator	String	Yes	This parameter is intended for
			transactions using 3D secure.
			Review the Appendix of your
			acquirer, provided separately, to
			check how to format this parameter.

4.2.6.3 **Specific Airline parameters**

Payment and Authorize operations support the next specific Airline parameters. All the parameters are optional and the type is string.

The columns "Leg" and "Trip Leg" indicate when the parameter supports multiple legs or multiple trip legs.

Name	Leg	Trip Leg	Description
restrictedTicketIndicator	Yes	No	This field applies to CPS Passenger transport 1 and 2 transactions and indicates if the ticket was non-refundable. Allowed values are:
			"True"
			"False"
passengerName	Yes	No	Passenger name. Maximum length 25 characters.
issueDate	No	No	Date the ticket was issued to the customer. It must be formatted as MMddyy. i.e 2 nd July, 08 becomes 070208.
travelAgencyName	No	No	The name of the travel agency who issued the ticket. Maximum length 25 characters.
customerCode	No	No	A code that the cardholder supplied to the merchant. Maximum length 17 characters.
ticketNumber	Yes	No	The number of the ticket. Required for Reduced interchange. Member must provide primary ticket number if multiple tickets are purchased with one transaction. Maximum length 15 characters. Visa only allows for a 13 digit ticket number; only the first 13 digits of the ticket number will be sent to visa.
travelAgencyCode	No	No	Code assigned to the travel agency. Maximum length 8 digits.
issuingCarrier	Yes	No	Standard abbreviation for the airline or railway carrier issuing the ticket. Required for reduced interchange. For airline code is obtained from the Official Airline Guide or its equivalent. Up to 4



			characters.
totalFare	Yes	No	Total fare of all the different legs on individual ticket.
totalTaxes	Yes	No	Total taxes of all the different legs.
totalFee	Yes	No	Total fee of all the different legs.
conjunctionTicket	Yes	Yes	Ticket that contains additional coupons on an itinerary that is more than 4 segments. Maximum length 14 chars.
exchangeTicket	Yes	Yes	New ticket number issued when a ticket is exchanged. Maximum length 15 characters.
couponNumber	Yes	Yes	Each Ticket can contain several legs of travel and each leg of travel requires a separate coupon. That coupon within the series is identified by the coupon number. Length 1 char.
serviceClass	Yes	Yes	The service type. i.e. Coach, First Class. Required for reduced interchange.
			For airline, this code is obtained from the Official Airline Guide or its equivalent. Maximum length 2 chars.
travelDate	Yes	Yes	The effective ticket date. Valid format MMddyy
carrierCode	Yes	Yes	Standard abbreviation for the airline or railway carrier. For airline, code is obtained from the Official Airline Guide or its equivalent. Required for reduced interchange.
-to	V	V	Length is 2 chars.
stopoverCode	Yes	Yes	A code indicating a non-direct flight or route on the same ticket number. Length is 1 char.
cityOfOriginAirportCode	Yes	Yes	The airport or railway name's standard abbreviation. Required for Reduced Interchange. For airlines, code is obtained from the Official Airline Guide or its equivalent. Maximum length is 5 characters.
cityOfDestinationAirport Code	Yes	Yes	The airport or railway name's standard abbreviation. Required for Reduced Interchange. For airlines, code is obtained from the Official Airline Guide or its equivalent. Maximum length is 5 characters.
flightNumber	Yes	Yes	Number assigned by the operating or marketing carrier. Maximum length 5 characters.
departureTime	Yes	Yes	Time of departure (per trip leg). Format hhmm. i.e. 01:00 PM becomes 1300.



departureTimeSegment	Yes	Yes	Indicator of departure time portion (per trip leg). Length 1 character. Valid values are: "P" for PM
			"A" for AM
arrivalTime	Yes	Yes	Time of arrival (per trip leg). Format hhmm. i.e. 01:00 PM becomes 1300.
arivalTimeSegment	Yes	Yes	Indicator of arrival time portion (per trip leg). Length 1 character. Valid values are:
			"P" for PM
			"A" for AM
fareBasisCode	Yes	Yes	Alphanumeric code that carriers assign to a particular ticket type, such as business class or discounted/non-refundable. Maximum length 15 characters.
fare	Yes	Yes	Amount of the ticket per trip leg.
taxes	Yes	Yes	Amount of the taxes per trip leg associated with the ticket.
fee	Yes	Yes	Amount of the fee per trip leg associated with the ticket
endorsementOrRestricti ons	Yes	Yes	Endorsement can be agency-added notations, and in some cases, mandatory government required notations, such as value added tax. Restrictions are limitations set on ticket based on the type of fare such as non-refundable or 3-day minimum stay. Maximum length is 20 characters.

Next you can see the specifications on how to build the parameters supporting several Legs or several Trip Legs.

4.2.6.3.1 Using multiple Legs

Multiple Legs are separated by a pipe "|". i.e. passengerName parameter with two legs can be formatted as "John Doe|Jane Doe". Where Leg 1 has a passenger name "John Doe" and Leg 2 has a passenger name "Jane Doe".

It might also be possible to send several legs where certain parameters are not sent. Let's suppose the next scenario where several legs:

Leg 1:

passengerName: John DoeissueDate: 07-02-2008



ticketNumber: [You do not have this information]

Leg 2:

passengerName: Jane Doe

• issueDate: [You do not have this information]

ticketNumber: 456712374184512

Leg 3:

passengerName: Jake DoeissueDate: 07-03-2008

ticketNumber: [You do not have this information]

This can be formatted in the next way.

passengerName= "John Doe|Jane Doe|Jake Doe" issueDate = "070208||070308" ticketNumber = "|456712374184512|"

4.2.6.3.2 Using multiple Trip Legs

Parameters supporting Multiple Trip Legs allow an additional division to the legs. They are formatted in a similar way as Multiple Legs, the main difference is that in addition to the pipe "|" they are separated by "##". There is a limitation of 4 trip legs per leg.

Let's suppose the next scenario where each leg has now multiple trip legs:

- Leg 1:

passengerName: John Doe

• issueDate: 07-02-2008

ticketNumber: [You do not have this information]

- Trip Leg 1:

cityOfOriginAirportCode: LAS

• cityOfDestinationAirportCode: ATL

- Trip Leg 2:

• cityOfOriginAirportCode: ATL

cityOfDestinationAirportCode: MAD



- Leg 2:

passengerName: Jane Doe

• issueDate: [You do not have this information]

ticketNumber: 456712374184512

- Trip Leg 1:

cityOfOriginAirportCode: LAS

cityOfDestinationAirportCode: [You do not have this information]

- Trip Leg 2:

• cityOfOriginAirportCode: ATL

cityOfDestinationAirportCode: MAD

- Leg 3:

· Passenger Name: Jake Doe

issueDate: 07-03-2008

• ticketNumber: [You do not have this information]

- Trip Leg 1:

• cityOfOriginAirportCode: LAS

• cityOfDestinationAirportCode: ATL

- Trip Leg 2:

• cityOfOriginAirportCode: ATL

cityOfDestinationAirportCode: MAD

This can be formatted in the next way.

```
passengerName= "John Doe|Jane Doe|Jake Doe"
issueDate = "070208||070308"
ticketNumber = "|456712374184512|"
cityOfOriginAirportCode = "LAS##ATL|LAS##ATL|LAS##ATL"
cityOfDestinationAirportCode = "ATL##MAD|##MAD|ATL##MAD"
```

Let's now suppose that in the scenario above we do not have the origin and destination airport codes belonging to the Trip Leg 1. Therefore we have the information like this:

- Leg 1:



passengerName: John Doe

• issueDate: 07-02-2008

• ticketNumber: [You do not have this information]

- Leg 2:

• passengerName: Jane Doe

• issueDate: [You do not have this information]

ticketNumber: 456712374184512

- Trip Leg 1:

• cityOfOriginAirportCode: LAS

 $\bullet \quad {\sf cityOfDestinationAirportCode:} \quad [{\sf You} \quad {\sf do} \quad {\sf not} \quad {\sf have} \quad {\sf this}$

information]

- Trip Leg 2:

• cityOfOriginAirportCode: ATL

cityOfDestinationAirportCode: MAD

- Leg 3:

• Passenger Name: Jake Doe

• issueDate: 07-03-2008

ticketNumber: [You do not have this information]

- Trip Leg 1:

cityOfOriginAirportCode: LAS

• cityOfDestinationAirportCode: ATL

- Trip Leg 2:

• cityOfOriginAirportCode: ATL

• cityOfDestinationAirportCode: MAD

Note that the cityOfOriginAirportCode and cityOfDestinationAirportCode start now directly with a pipe. This indicates that you have 3 legs but you do not have the information for it.

passengerName= "John Doe|Jane Doe|Jake Doe"
issueDate = "070208||070308"
ticketNumber = "|456712374184512|"
cityOfOriginAirportCode = "|LAS##ATL|LAS##ATL"
cityOfDestinationAirportCode = "|##MAD|ATL##MAD"



The next sample provides you with a sample coded with colors that can help to understand better the formatting.

- Leg 1
 - passengerName: Bertha Lee
 - totalFare: 20.80
 - Trip leg 1
 - cityOfOriginAirportCode: ABQ
 - cityOfDestinationAirportCode: DEN
 - fare: 20.80
 - Trip leg 2
 - cityOfOriginAirportCode: DEN
 - Destination airport code: DCA
 - fare: 0.00
- Leg 2
 - passengerName: Thomas Lee
 - totalFare: 20.80
 - Trip leg 1
 - cityOfOriginAirportCode: ABQ
 - cityOfDestinationAirportCode: DEN
 - fare: 20.80
 - Trip leg 2
 - cityOfOriginAirportCode: DEN
 - cityOfDestinationAirportCode: DCA
 - fare: 0.0

All this information should be formatted as:





Trip Leg 1 - Leg 1
Trip Leg 2 - Leg 1
Trip Leg 1 - Leg 2
Trip Leg 2 - Leg 2
• amount: 41.6

passengerName: Bertha Lee | Thomas Lee

• totalFare: 20.80|20.80

• cityOfOriginAirportCode: ABQ##DEN | ABQ##DEN

cityOfDestinationAirportCode: DEN##DCA|DEN##DCA

fare: 20.8##0.0|20.8##0

4.2.6.3.3 Airline parameter validations

There are some requirements that you need to take into consideration.

- The sum of total fares must be the same as the amount sent on the transaction. If you don't know the amount of a leg just indicate it using the separator. Examples:
 - o amount: 40
 - totalFares: "20|21". INCORRECT.
 - totalFares: "20|19". INCORRECT.
 - totalFares: "20|20". CORRECT.
 - totalFares: "20|". CORRECT, 2 legs, first one of 20, second one empty value.
 - totalFares: "|10". CORRECT, 2 legs, first one empty value, second one of 10. In this case it's not necessary that the sum of total fares is the same because we do not have all the information.
 - totalFares: "2|30|". CORRECT, 3 legs, 2 in first one, 30 in second, empty value in the third leg. In this case it's not necessary that the sum of total fares is the same because we do not have all the information.



- totalFares: "2|51|". INCORRECT. This case is incorrect because, even if we do not have all the information, we can see that sum of all the fares is higher than the amount.
- The total taxes and fees cannot be higher than its total fare. If you don't have total fare, but taxes or fees it will not be above the transaction amount. Examples:

o amount: 40

totalFare: "19|21"

totalTaxes: "1|2". CORRECT.

totalFees: "19|21". CORRECT.

 totalFees: "1|22". INCORRECT, second leg fee is higher than its total fare

- totalTaxes: "1|2|" CORRECT, this indicates that you have 3 legs, but you don't have total fare for the third leg.
- totalFees: "1|2|50" INCORRECT, this indicates that you have 3 legs, but the third leg fee can't be higher than the transaction amount.
- The fares, taxes and fees cannot be higher than its corresponding total fare. Examples:

o amount: 40

totalFares: "19|21"

• fare: "19|21". CORRECT, one trip leg per leg.

- taxes: "10##9". CORRECT, first leg with 2 trip legs, first one has 10 amount and second one 9. You don't have information for second leg.
- fee: "10|2##19". CORRECT, 2 trip legs, first leg has only value 10 for the first trip leg, we don't have any information for trip leg 2. For leg 2 we have 2 trip legs of 2 and 19.
- taxes: "22" INCORRECT. Taxes are higher than the totalFare of the first leg.



4.2.7 **Upselling Operations**

This web service provides extended Authorize and Payment methods to support customer and product information, allowing the use of marketing solutions and upselling programs³.

These methods allow the use of the Order Confirmation Calls (OCC), also known as Welcome Calls, which is one of the most effective support services for online post-transaction sales. When a successful authorize or payment is processed using these services, the information of the transaction is registered in our marketing partner provider systems. Their call centers get in contact with the customer verifying the address, product and payment and attempting to sell other products.

The goal of this service is to eliminate potential fraudulent orders and upsell different products offering consumer discount programs.

It also provides methods to recover and monetize customer abandon orders. It is common that a consumer abandons a checkout due to different causes, like finding the check out process too long or getting distracted. In order to make profit of these lost sales, the RegisterProduct and RegisterAbandonOrder methods can be used.

You can use the RegisterProduct service to submit the necessary information regarding the products and campaigns, when posting leads in the system of our marketing partner providers. The RegisterAbandonOrder method can be used to notify our marketing partner providers that a customer has abandoned your checkout. This way the call center agents will dial the customer trying to monetize these leads. If a sale is made by the call center, a transaction will be processed via Payvision Gateway using your merchant account. To monitor the abandon orders that have eventually become a sale, you can use the reporting system of our marketing provider in order to supply the final customers with the purchased services or products. This reporting system can also be used to monitor the order confirmation calls.

4.2.7.1 Authorize

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/UpsellingOperations.as mx?op=Authorize

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³ Upselling Operations are not configured by default in Payvision Gateway. Please ask your sales contact to get more information about how the upselling program works.



The next table describes the request parameters to perform an Authorize.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
countryId	Int	Yes	ISO 3166 Country code (numeric) that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser.



		T	T
			You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
productName	String	No	Name of the purchased product or service.
			It is required to provide the order confirmation services.
customerFirstName	String	No	Customer's first name.
			It is required to provide the order confirmation services.
customerLastName	String	No	Customer's last name.
			It is required to provide the order confirmation services.
customerPhoneNumber	String	No	Customer's phone number. It must exclude "-" and lead "1".
			It is required to provide the order confirmation services.
customerMobilePhoneN umber	String	No	Customer's mobile phone number. It must exclude "-" and lead "1".
customerAddress	String	No	Customer's billing address. It is also the Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
			It is required to provide the order confirmation services.
customerCity	String	No	Customer's billing city.



			It is required to provide the order confirmation services.
customerState	String	No	Customer's billing state.
			It is required to provide the order confirmation services.
customerZipCode	String	No	Customer's billing zip code. Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter. It is required to provide the order
			confirmation services.
customerCountryId	Int	Yes	ISO 3166 Country code (numeric) that indicates the customer's billing country. Supported values are 840 (United States) and 124 (Canada).
customerEmail	String	No	Customer's email address.
supportNumber	String	No	Customer service phone number.
webSite	String	No	Website making the request. It must not be the URL, it should be the website name.
acquisitionChannel	String	No	Acquisition channel indicates how the order was acquired. Valid values are: - Website - Callcenter - TV - Radio - Print
orderStatus	String	No	Indicates whether the lead is for an order confirmation, ship confirmation or cancel confirmation. Valid values are: - shipconfirm: the order has been shipped. - orderconfirm: the order has not been shipped. - cancelconfirm: the order has been cancelled.
shipperCompany	String	No	Vendor who shipped the product.

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shipperTrackingNumber	String	No	Shipper	Tracking	number	for	the
			order or	shipment			

The Cdc is a field returned as part of the result of any operation. This field contains variable information. Read the point <u>Cdc structure</u> for more information.

Authorizes that have been sent using the UpsellingOperations contain an additional entry in the Cdc list called "UpsellingInformation".

This entry provides the next information:

Name	Description			
Result	This value indicates if the upselling operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.			
Message	Friendly message indicating the result of the upselling operation.			
ProviderResult	Result code returned by the upselling provider.			
ProviderMessage	Result message returned by the upselling provider.			
LeadId	Payvision Id of the upselling operation.			
LeadGuid	Payvision Guid of the upselling operation.			
TrackingProviderCode	Tracking code returned by the upselling provider.			

4.2.7.2 **Payment**

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/UpsellingOperations.as mx?op=Payment

The next table describes the request parameters to perform a Payment operation.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.



countryId	Int	Yes	ISO 3166 Country code (numeric)
			that indicates from which country comes the transaction.
amount	Decimal	Yes	Transaction amount. The decimal separator must be a point "."
currencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the transaction.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.
cardNumber	String	Yes	Card holder account number.
cardHolder	String	No	Card holder name as it appears in the card.
cardExpiryMonth	unsignedByte	Yes	Card expiration Month. Valid values are from 1 to 12.
cardExpiryYear	Short	Yes	Card expiration Year expressed with 4 digits. i.e. 2007
cardCvv	String	No	Card validation code. Each card type has a unique name for this field. Visa (Cvv2), Mastercard (Cvc2), Amex (CID) This field is optional depending on the merchant account type. Moto and Recurring transactions don't require this field.
cardType	String	No	Payvision system automatically detects the next card types based on the card number: Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser. You only need to send this value if are going to use a different card type. See Appendix A for a list of valid values.
issueNumber	String	No	This value is only required for Switch and Solo cards.
merchantAccountType	Int	Yes	This value represents the type of the merchant account that will be used to perform the transaction. Valid values are:



		1	T
			1 – E-Commerce
			2 – Mail Order / Telephone order
			4 - Recurring
dynamicDescriptor	String	No	Check the Appendix of your acquirer, provided separately, to know how to format this parameter.
productName	String	No	Name of the purchased product or service.
			It is required to provide the order confirmation services.
customerFirstName	String	No	Customer's first name.
			It is required to provide the order confirmation services.
customerLastName	String	No	Customer's last name.
			It is required to provide the order confirmation services.
customerPhoneNumber	String	No	Customer's phone number. It must exclude "-" and lead "1".
			It is required to provide the order confirmation services.
customerMobilePhoneN umber	String	No	Customer's mobile phone number. It must exclude "-" and lead "1".
customerAddress	String	No	Customer's billing address. It is also the Street address for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.
			It is required to provide the order confirmation services.
customerCity	String	No	Customer's billing city.
			It is required to provide the order confirmation services.
customerState	String	No	Customer's billing state.
			It is required to provide the order confirmation services.
customerZipCode	String	No	Customer's billing zip code. Zip Code for AVS verification. Review the Appendix of your acquirer, provided separately, to check how to format this parameter.



			It is required to provide the order confirmation services.
customerCountryId	Int	Yes	ISO 3166 Country code (numeric) that indicates the customer's billing country. Supported values are 840 (United States) and 124 (Canada).
customerEmail	String	No	Customer's email address.
supportNumber	String	No	Customer service phone number.
webSite	String	No	Website making the request. It must not be the URL, it should be the website name.
acquisitionChannel	String	No	Acquisition channel indicates how the order was acquired. Valid values are: - Website - Callcenter - TV - Radio - Print
orderStatus	String	No	Indicates whether the lead is for an order confirmation, ship confirmation or cancel confirmation. Valid values are: - shipconfirm: the order has been shipped. - orderconfirm: the order has not been shipped. - cancelconfirm: the order has been cancelled.
shipperCompany	String	No	Vendor who shipped the product.
shipperTrackingNumber	String	No	Shipper Tracking number for the order or shipment



The Cdc is a field returned as part of the result of any operation. This field contains variable information. Read the point <u>Cdc structure</u> for more information.

Payments that have been sent using the UpsellingOperations contain an additional entry in the Cdc list called "UpsellingInformation".

This entry provides the next information:

Name	Description			
Result	This value indicates if the upselling operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point <u>Result Codes</u> for more info.			
Message	Friendly message indicating the result of the upselling operation.			
ProviderResult	Result code returned by the upselling provider.			
ProviderMessage	Result message returned by the upselling provider.			
LeadId	Payvision Id of the upselling operation.			
LeadGuid	Payvision Guid of the upselling operation.			
TrackingProviderCode	Tracking code returned by the upselling provider.			

4.2.7.3 RegisterProduct

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/UpsellingOperations.as mx?op=RegisterProduct

The next table describes the request parameters to execute the method RegisterProduct.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum



			length of 100 chars. The value must be unique during 24 hours.
productName	String	Yes	Name of the product.
sku	String	Yes	Stock Keeping Unit: unique identifier of the product or service.
campaignName	String	Yes	Campaign name linked to the product to be sold.
productPrice	Decimal	Yes	Product price.
productPriceCurrencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the product price. Currently it is only supported 840 – US Dollars.
shippingFee	Decimal	Yes	Shipping fee.
shippingFeeCurrencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the shipping fee. Currently it is only supported 840 – US Dollars.
processingFee	Decimal	Yes	Processing fee.
processingFeeCurrencyId	Int	Yes	ISO 4217 Currency code (numeric) that indicates the currency of the processing fee. Currently it is only supported 840 – US Dollars.
shippingMethod	String	No	Shipment method, for example: First, Priority etc.

The table below shows the different fields returned by the method RegisterProduct.

Name	Туре	Description
Result	Int	This value indicates if the operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.
Message	String	Friendly message indicating the result of the register product operation.
TrackingMemberCode	String	TrackingMemberCode sent in the request echoed back.
ProductId	Int	Payvision Id of the product registered.
ProductGuid	Guid	Payvision Guid of the product registered.
ProductDateTime	DateTime	Date time in which the request was processed by



		Payvision.
Cdc	CdcEntryList	The information contained in this field is variable and depends on several factors. Read the point <u>Cdc</u> <u>structure</u> for more information.

The next table contains the information contained in the Cdc entry called "UpsellingInformation".

Name	Description	
Result	This value indicates if the register product operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.	
Message	Friendly message indicating the result of the upselling operation.	
ProviderResult	Result code returned by the upselling provider.	
ProviderMessage	Result message returned by the upselling provider.	
TrackingProviderCode	Tracking code returned by the upselling provider.	

4.2.7.4 RegisterAbandonOrder

Description about how to build requests for this method using the different protocols supported can be found at https://testprocessor.payvisionservices.com/Gateway/UpsellingOperations.as mx?op=RegisterAbandonOrder

The next table describes the request parameters to execute the method RegisterProduct.

Name	Туре	Required	Description
memberId	Int	Yes	This value is provided by Payvision and is used to authenticate a merchant.
memberGuid	String	Yes	This value is provided by Payvision and is used to authenticate a merchant.
trackingMemberCode	String	Yes	This value is the order number or tracking code, it can contain any alphanumeric value with a maximum length of 100 chars. The value must be unique during 24 hours.



productName	String	Yes	Name of the product.
customerFirstName	String	No	Customer's first name.
customerLastName	String	No	Customer's last name.
customerPhoneNumber	String	Yes	Customer's phone number. It must exclude "-" and lead "1".
customerMobilePhoneNumber	String	No	Customer's mobile phone number. It must exclude "-" and lead "1".
customerAddress	String	No	Customer's billing address.
customerCity	String	No	Customer's billing city.
customerState	String	No	Customer's billing state.
customerZipCode	String	No	Customer's billing zip code.
customerCountryId	Int	Yes	ISO 3166 Country code (numeric) that indicates the customer's billing country. Supported values are 840 (United States) and 124 (Canada).
customerEmail	String	No	Customer's email address.
supportNumber	String	No	Customer service phone number.
webSite	String	No	URL of the originating website for the customer.
campaignName	String	No	Campaign name linked to the product to be sold.

The table below shows the different fields returned by the method RegisterAbandonOrder.

Name	Туре	Description
Result	Int	This value indicates if the operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.
Message	String	Friendly message indicating the result of the register abandon order operation.
TrackingMemberCode	String	TrackingMemberCode sent in the request echoed back.
LeadId	Int	Payvision Id of the abandon order lead processed.
LeadGuid	Guid	Payvision Guid of the abandon order lead processed.



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LeadDateTime	DateTime	Date time in which the request was processed by Payvision.
Cdc	CdcEntryList	The information contained in this field is variable and depends on several factors. Read the point <u>Cdc</u> <u>structure</u> for more information.

The next table contains the information contained in the Cdc entry called "UpsellingInformation".

Name	Description
Result	This value indicates if the post abandon order operation was successfully processed or not. A 0 means Ok, any other value means error. Check the point Result Codes for more info.
Message	Friendly message indicating the result of the upselling operation.
ProviderResult	Result code returned by the upselling provider.
ProviderMessage	Result message returned by the upselling provider.
TrackingProviderCode	Tracking code returned by the upselling provider.



4.2.8 **Operation Responses**

The next table describes the fields returned in all the responses.

Name	Туре	Description
Result	Int	This value indicates if the operation was successfully processed or not. A 0 means Ok, different than 0 means error.
Message	String	Friendly message indicating the result of the transaction
TrackingMemberCode	String	TrackingMemberCode sent in the request echoed back.
TransactionId	Int	Payvision Id of the processed transaction. This value needs to be sent in Refunds, Captures and Voids requests.
TransactionGuid	Guid	Payvision Guid of the processed transaction. This value needs to be sent in Refunds, Captures and Voids requests.
TransactionDateTime	DateTime	UTC date and time in which the transaction was processed by Payvision.
Cdc	CdcEntry list	The information contained in this field is variable and depends on several factors. Read below.
Recovered	Boolean	This field it's only present when you perform a RetrieveTransactionResult operation. If true indicates that the transaction you were looking for was successfully retrieved. If transaction was not found value will be false.

4.2.8.1 Result Codes

Next you can see a list of the available result codes you can obtain in the field "Result". The codes represent group of common errors, in some cases you will be able to obtain a detailed code in the Cdc.

Due to each acquiring bank has its own error codes, the detailed list will be sent to you as an appendix to this document. Ask your sales contact to obtain it.

Code	Description
0	There were no errors during the execution of the operation.
1000	This code groups all errors related to the parameters sent.



2000	Groups all errors related to Payvision.
3000	Groups all responses related to declines.
3100	Groups all responses related to Referral transactions.
3200	Groups all errors related to the acquiring bank.
4000	Groups all errors regarding security issues.
5000	Groups all unexpected errors
6000	Groups all codes different than 0 given by the business rules applied to the execution of an operation. i.e. A rule preventing the execution of a Refund because a manual refund is required will produce an operation returning Result = 6000.

4.2.8.2 Cdc structure

The structure of the Cdc is as follows:

- A Cdc is a list of CdcEntry: This list contains 0 or more CdcEntry.
- CdcEntry is a list of CdcEntryItem: This list contains 0 or more CdcEntryItem.
- CdcEntryItem list. Is just a list of key/value pairs.

Cdc

Name	Туре	Description
Cdc	CdcEntry list	Provides a list of CdcEntry with information regarding the different parts involved in the result of an operation.

CdcEntry:

Name	Туре	Description
Name	string	This field provides a descriptive name of the group of information contained in the list of CdcEntryItems.
CdcEntryItem	CdcEntryItem list	Provides a list of CdcEntryItem, which contain information regarding a specific part involved in the result of an operation.

CdcEntryItem:

Name	Туре	Description
Key	string	Name of the value that describes.

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Value string	Value of the field described by Key.
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This is done to provide more granular information about the results. For instance, a declined transaction will always have a Result 3000. However, the Cdc provides all the information offered by the bank to explain why it was declined. Not all acquiring banks provide the same information, it depends for instance on the different checks the banks do, like Cvv and Avs checks. Let's see with a sample how the Cdc is built.

```
<Cdc>
  <CdcEntry>
      <Name>BankInformation</Name>
      <Items>
         <CdcEntryItem>
           <Key>BankCode</Key>
           <Value>A</Value>
         </CdcEntryItem>
         <CdcEntryItem>
            <Key>BankMessage</Key>
            <Value>APPROVAL</Value>
         </CdcEntryItem>
         <CdcEntryItem>
           <Key>BankApprovalCode</Key>
           <Value>471535</Value>
         </CdcEntryItem>
         <CdcEntryItem>
           <Key>CVVResult</Key>
           <Value>U</Value>
         </CdcEntryItem>
       </Items>
     </CdcEntry>
     <CdcEntry>
        <Name>CardInformation</Name>
        <Items>
          <CdcEntryItem>
            <Key>CardId</Key>
            <Value>1</Value>
          </CdcEntryItem>
```



4.2.9 **Examples**

4.2.9.1 Authorization

4.2.9.1.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
 <soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
     <Authorize xmlns="http://payvision.com/gateway/">
       <memberId>5</memberId>
       <memberGuid>34DDCB45-966C-4A75-870E-D871E623F03A/memberGuid>
       <countryId>528</countryId>
       <amount>1.05</amount>
       <currencyId>840</currencyId>
       <trackingMemberCode>order# 1</trackingMemberCode>
       <cardNumber>3000000000004</cardNumber>
       <cardHolder>test</cardHolder>
       <cardExpiryMonth>05</cardExpiryMonth>
       <cardExpiryYear>2008</cardExpiryYear>
       <cardCvv>123</cardCvv>
       <merchantAccountType>1</merchantAccountType>
     </Authorize>
   </soap:Body>
 </soap:Envelope>
```



4.2.9.1.2 **Response**

```
<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <AuthorizeResponse xmlns="http://payvision.com/gateway/">
       <AuthorizeResult>
         <Result>0</Result>
         <Message>The operation was successfully processed./Message>
         <TrackingMemberCode>order# 1</TrackingMemberCode>
         <TransactionId>1833</TransactionId>
         <TransactionGuid>8016a15a-cb64-47ad-bba6-c26fa41d3da3
        </TransactionGuid>
         <TransactionDateTime>2007-04-16T13:15:29.5625Z
         </TransactionDateTime>
           <Cdc>
             <CdcEntry>
                  <Name>BankInformation</Name>
                  <Items>
                    <CdcEntryItem>
                         <Key>BankCode</Key>
                         <Value>A</Value>
                    </CdcEntryItem>
                    <CdcEntryItem>
                         <Key>BankMessage</Key>
                         <Value>APPROVAL</Value>
                    </CdcEntryItem>
                    <CdcEntryItem>
                         <Key>BankApprovalCode</Key>
                         <Value>471535</Value>
                    </CdcEntryItem>
                    <CdcEntryItem>
                         <Key>CVVResult</Key>
                         <Value>U</Value>
                    </CdcEntryItem>
                  </Items>
           </CdcEntry>
         </Cdc>
       </AuthorizeResult>
```

</AuthorizeResponse>



```
</soap:Body>
</soap:Envelope>
```

4.2.9.2 **Capture**

4.2.9.2.1 **Request**

```
<?xml version="1.0" encoding="utf-8"?>
 <soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
      <Capture xmlns="http://payvision.com/gateway/">
        <memberId>5</memberId>
       <memberGuid>34DDCB45-966C-4A75-870E-D871E623F03A/memberGuid>
       <transactionId>1833</transactionId>
       <transactionGuid>8016a15a-cb64-47ad-bba6-c26fa41d3da3
       </transactionGuid>
       <amount>1.0</amount>
       <currencyId>978</currencyId>
        <trackingMemberCode>capture order# 1</trackingMemberCode>
     </Capture>
   </soap:Body>
 </soap:Envelope>
```

4.2.9.2.2 **Response**

</TransactionDateTime>



```
<Cdc>
               <CdcEntry>
                   <Name>BankInformation</Name>
                  <Items>
                      <CdcEntryItem>
                         <Key>BankCode</Key>
                         <Value>A</Value>
                      </CdcEntryItem>
                      <CdcEntryItem>
                         <Key>BankMessage</Key>
                         <Value>APPROVAL</Value>
                      </CdcEntryItem>
                      <CdcEntryItem>
                         <Key>BankApprovalCode</Key>
                         <Value>452142</Value>
                      </CdcEntryItem>
                  </Items>
               </CdcEntry>
            </Cdc>
         </CaptureResult>
      </CaptureResponse>
   </soap:Body>
</soap:Envelope>
```

4.2.9.3 **Void**

4.2.9.3.1 **Request**



4.2.9.3.2 **Response**

```
<?xml version="1.0" encoding="utf-8" ?>
 <soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <soap:Body>
    <VoidResponse xmlns="http://payvision.com/gateway/">
       <VoidResult>
           <Result>0</Result>
           <Message>The operation was successfully processed./Message>
          <TrackingMemberCode>void 1</TrackingMemberCode>
           <TransactionId>1855</TransactionId>
          <TransactionGuid>c5c9a302-91b3-4869-b6d2-59b7a1586035
          </TransactionGuid>
           <TransactionDateTime>2007-04-17T11:09:52.40625Z
          </TransactionDateTime>
           <Cdc>
              <CdcEntry>
                 <Name>BankInformation</Name>
                 <Ttems>
                    <CdcEntryItem>
                       <Key>BankCode</Key>
                       <Value />
                    </CdcEntryItem>
                    <CdcEntryItem>
                        <Key>BankMessage</Key>
                                   <Value />
                    </CdcEntryItem>
                 </Items>
              </CdcEntry>
              </Cdc>
       </VoidResult>
    </VoidResponse>
   </soap:Body>
```

4.2.9.4 **Payment**

</soap:Envelope>

4.2.9.4.1 **Request**

<?xml version="1.0" encoding="utf-8"?>



```
<soap:Envelope
                    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
     <Payment xmlns="http://payvision.com/gateway/">
       <memberId>5</memberId>
       <memberGuid>34DDCB45-966C-4A75-870E-D871E623F03A/memberGuid>
       <countryId>528</countryId>
       <amount>1.00</amount>
       <currencyId>840</currencyId>
       <trackingMemberCode>order# 3</trackingMemberCode>
       <cardNumber>4111111111111111
       <cardHolder>test</cardHolder>
       <cardExpiryMonth>05</cardExpiryMonth>
       <cardExpiryYear>2008</cardExpiryYear>
       <cardCvv>123</cardCvv>
       <merchantAccountType>1</merchantAccountType>
     </Payment>
   </soap:Body>
 </soap:Envelope>
```

4.2.9.4.2 **Response**

```
<?xml version="1.0" encoding="utf-8" ?>
 <soap:Envelope</pre>
                   xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
     <PaymentResponse xmlns="http://payvision.com/gateway/">
      <PaymentResult>
        <Result>3000</Result>
        <Message>The transaction was declined by the bank./Message>
        <TrackingMemberCode>order# 3</TrackingMemberCode>
        <TransactionId>1847</TransactionId>
        <TransactionGuid>aebccdae-44a3-40d5-88b3-7d7ca23fa4dc
        </TransactionGuid>
        <TransactionDateTime>2007-04-17T10:45:09.84375Z
        </TransactionDateTime>
        <Cdc>
             <CdcEntry>
                    <Name>BankInformation</Name>
                    <Items>
                          <CdcEntryItem>
```



4.2.9.5 **Refund**

4.2.9.5.1 **Request**

```
<?xml version="1.0" encoding="utf-8"?>
 <soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
   <soap:Body>
     <Refund xmlns="http://payvision.com/gateway/">
        <memberId>5</memberId>
       <memberGuid>34DDCB45-966C-4A75-870E-D871E623F03A/memberGuid>
       <transactionId>1849/transactionId>
       <transactionGuid>
             b04f7183-c936-40f9-9be2-0020452732e7
       </transactionGuid>
       <amount>1</amount>
       <currencyId>840</currencyId>
       <trackingMemberCode>refund# 1</trackingMemberCode>
     </Refund>
   </soap:Body>
 </soap:Envelope>
```

4.2.9.5.2 **Response**

```
<?xml version="1.0" encoding="utf-8" ?>
```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>



```
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   <soap:Body>
      <RefundResponse xmlns="http://payvision.com/gateway/">
         <RefundResult>
            <Result>0</Result>
            <Message>The operation was successfully processed.
            </Message>
            <TrackingMemberCode>refund# 1</TrackingMemberCode>
            <TransactionId>1853</TransactionId>
            <TransactionGuid>8bb55a1b-c0d8-4b56-bd5d-02021f0fcb70
            </TransactionGuid>
            <TransactionDateTime>2007-04-17T11:01:31.734375Z
            </TransactionDateTime>
            <Cdc>
               <CdcEntry>
                  <Name>BankInformation</Name>
                  <Items>
                     <CdcEntryItem>
                        <Key>BankCode</Key>
                        <Value>A</Value>
                     </CdcEntryItem>
                     <CdcEntryItem>
                        <Key>BankMessage</Key>
                     </CdcEntryItem>
                  </Items>
               </CdcEntry>
                  </Cdc>
           </RefundResult>
        </RefundResponse>
     </soap:Body>
</soap:Envelope>
```



4.2.10 Common Integration Errors

This section describes the common errors done during the integration process.

- **AVS:** Not all Payvision partner acquirers support AVS. Check the additional Appendix file provided together with this document before sending any value in the avsAddress and avsZip parameters.
- **Dynamic Descriptor:** This case is similar to the AVS checks, before sending this parameter check that your acquirer supports this feature and the requirements to format it properly.
- **Refund:** The Refund operation must be done using the TransactionId and TransactionGuid resulting from a Payment or a Capture operation. It is a common mistake to use the TransactionId and TransactionGuid resulting from an Authorize operation.
- Client Timeout: The average response times of the live environment is about 2 seconds, but it might be possible that under certain circumstances the acquirer takes up to 120 seconds to provide a response. To avoid problems related to lost responses for successful transactions, Payvision checks during certification, and therefore suggest to its customers, to use a client timeout of 120 seconds.
- **Currency and Country Id:** Note that Payvision works with the numeric ISO codes. It is a common error to send things like EUR instead of 978. You can see the values at the end of this document.
- **CVV:** The CVV code must be sent for E-Commerce transactions.
- **Card Type:** Note that you only need to send the card type parameter for cards different than Amex, EurocardMastercard, Visa, VisaElectron, Diners, Discover, EnRoute, JCB, Solo and Laser.



5 APPENDIX A

5.1 List of ISO 3166 Countries

Name	Iso Numeric Code
Åland Islands	248
Afghanistan	4
Albania	8
Algeria	12
American Samoa	16
Andorra	20
Angola	24
Anguilla	660
Antarctica	10
Antigua and Barbuda	28
Argentina	32
Armenia	51
Aruba	533
Australia	36
Austria	40
Azerbaijan	31
Bahamas	44
Bahrain	48
Bangladesh	50
Barbados	52
Belarus	112
Belgium	56
Belize	84
Benin	204
Bermuda	60
Bhutan	64
Bolivia	68
Bosnia and Herzegovina	70
Botswana	72
Bouvet Island	74
Brazil	76
British Indian Ocean Territory	86
Brunei Darussalam	96
Bulgaria	100
Burkina Faso	854
Burundi	108



Cambodia 17 Cameroon 12 Canada 12 Cape Verde 13 Cayman Islands 13 Central African Republic 14 Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	84 16 20 24 32 36 40 48 52 56 62 66 70 74 80 84
Cameroon 12 Canada 12 Cape Verde 13 Cayman Islands 13 Central African Republic 14 Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	20 24 32 36 40 48 52 56 62 66 70 74
Canada 12 Cape Verde 13 Cayman Islands 13 Central African Republic 14 Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	24 32 36 40 48 52 56 62 66 70 74
Cape Verde 13 Cayman Islands 13 Central African Republic 14 Chad 15 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	32 36 40 48 52 56 62 66 70 74
Cayman Islands 13 Central African Republic 14 Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	36 40 48 52 56 62 66 70 74
Central African Republic 14 Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	40 48 52 56 62 66 70 74 80
Chad 14 Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	48 52 56 62 66 70 74 80
Chile 15 China 15 Christmas Island 16 Cocos (Keeling) Islands 16 Colombia 17 Comoros 17 Congo 18	52 56 62 66 70 74 80
China15Christmas Island16Cocos (Keeling) Islands16Colombia17Comoros17Congo18	56 62 66 70 74 80
Christmas Island16Cocos (Keeling) Islands16Colombia17Comoros17Congo18	62 66 70 74 80
Cocos (Keeling) Islands16Colombia17Comoros17Congo18	66 70 74 80
Colombia 17 Comoros 17 Congo 18	70 74 80
Comoros 17 Congo 18	74 80
Congo 18	80
<u> </u>	
Cook Islands 18	84
	- •
Costa Rica 18	88
Croatia 19	91
Cuba 19	92
Cyprus 19	96
* 1	03
•	78
	08
	62
•	12
	14
	18
	18
	22
	26
	32
	33
	31
,	38
	34
•	42
	46
	50
	54
	58
	60
	66
Gambia 27	70
Georgia 26	68
Germany 27	76
Ghana 28	88
Gibraltar 29	92



Greece 300 Greenland 304 Grenada 308 Guadeloupe 312 Guam 316 Guatemala 320 Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 India 356 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 332 Kenya 404 Kiribati 296 Korea, R
Grenada 308 Guadeloupe 312 Guam 316 Guatemala 320 Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 352 India 356 Iraq 368 Iraq 368 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296
Guadeloupe 312 Guam 316 Guatemala 320 Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 332 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410
Guam 316 Guatemala 320 Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 332 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Republic of 408 Korea, Republic of 410 <
Guatemala 320 Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 41
Guernsey 831 Guinea 324 Guinea-Bissau 624 Guyana 332 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Guinea 324 Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Guinea-Bissau 624 Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic peoplels Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao peoplels Democratic Republic 418
Guyana 328 Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic peoplels Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao peoplels Democratic Republic 418
Haiti 332 Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic peoplel's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao peoplel's Democratic Republic 418
Heard Island and Mcdonald Islands 334 Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic peoplels Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao peoplels Democratic Republic 418
Holy See (Vatican City State) 336 Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic peoplels Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao peoplels Democratic Republic 418
Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Honduras 340 Hong Kong 344 Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Hungary 348 Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Iceland 352 India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
India 356 Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Indonesia 360 Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Iran, Islamic Republic of 364 Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Iraq 368 Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Ireland 372 Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Isle of Man 833 Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Israel 376 Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Italy 380 Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Jamaica 388 Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Japan 392 Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Jersey 832 Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Jordan 400 Kazakhstan 398 Kenya 404 Kiribati 296 Korea, Democratic people's Republic of 408 Korea, Republic of 410 Kuwait 414 Kyrgyzstan 417 Lao people's Democratic Republic 418
Kazakhstan398Kenya404Kiribati296Korea, Democratic people's Republic of408Korea, Republic of410Kuwait414Kyrgyzstan417Lao people's Democratic Republic418
Kenya404Kiribati296Korea, Democratic people's Republic of408Korea, Republic of410Kuwait414Kyrgyzstan417Lao people's Democratic Republic418
Kiribati296Korea, Democratic people's Republic of408Korea, Republic of410Kuwait414Kyrgyzstan417Lao people's Democratic Republic418
Korea, Democratic people's Republic of408Korea, Republic of410Kuwait414Kyrgyzstan417Lao people's Democratic Republic418
Korea, Republic of410Kuwait414Kyrgyzstan417Lao people's Democratic Republic418
Kuwait414Kyrgyzstan417Lao peoplels Democratic Republic418
Kyrgyzstan417Lao peoplels Democratic Republic418
Lao people\s Democratic Republic 418
Latvia 428
Lebanon 422
Lesotho 426
Liberia 430
Libyan Arab Jamahiriya 434
Liechtenstein 438
Lithuania 440
Luxembourg 442
Macao 446
Macedonia, the former Yugoslav 807



Denublic of	
Republic of	450
Madagascar	450
Malawi	454
Malaysia	458
Maldives	462
Mali	466
Malta	470
Marshall Islands	584
Martinique	474
Mauritania	478
Mauritius	480
Mayotte	175
Mexico	484
Micronesia, Federated States of	583
Moldova, Republic of	498
Monaco	492
Mongolia	496
Montenegro	499
Montserrat	500
Morocco	504
Mozambique	508
Myanmar	104
Namibia	516
Nauru	520
Nepal	524
Netherlands	528
Netherlands Antilles	530
New Caledonia	540
New Zealand	554
Nicaragua	558
Niger	562
Nigeria	566
Niue	570
Norfolk Island	574
Northern Mariana Islands	580
Norway	578
Occupied Palestinian Territory	275
Oman	512
Pakistan	586
Palau	585
Panama	591
Papua New Guinea	598
Paraguay	600
Peru	604
Philippines	608
Pitcairn	612
Poland	616
i diailu	010



[B.: 1	1
Portugal	620
Puerto Rico	630
Qatar	634
Reunion	638
Romania	642
Russian Federation	643
Rwanda	646
Saint Helena	654
Saint Kitts and Nevis	659
Saint Lucia	662
Saint Pierre and Miquelon	666
Saint Vincent and the Grenadines	670
Samoa	882
San Marino	674
Sao Tome and Principe	678
Saudi Arabia	682
Senegal	686
Serbia	688
Serbia and Montenegro	891
Seychelles	690
Sierra Leone	694
Singapore	702
Slovakia	703
Slovenia	705
Solomon Islands	90
Somalia	706
South Africa	710
South Georgia and the South Sandwich	239
Islands	
Spain	724
Sri Lanka	144
Sudan	736
Suriname	740
Svalbard and Jan Mayen	744
Swaziland	748
Sweden	752
Switzerland	756
Syrian Arab Republic	760
Taiwarn, province of China	158
Tajikistan	762
Tanzania, united Republic of	834
Thailand	764
Timor-Leste	626
Togo	768
Tokelau	772
Tonga	776
Trinidad and Tobago	780



Tunisia	788
Turkey	792
Turkmenistan	795
Turks and Caicos Islands	796
Tuvalu	798
Uganda	800
Ukraine	804
United Arab Emirates	784
United Kingdom	826
United States	840
United States Minor Outlying Islands	581
Unknown	0
Uruguay	858
Uzbekistan	860
Vanuatu	548
Venezuela	862
Viet Nam	704
Virgin Islands, British	92
Virgin Islands, U.S.	850
Wallis and Futuna	876
Western Sahara	732
Yemen	887
Zambia	894
Zimbabwe	716

5.2 List of ISO 4217 Currencies

Name	Iso Numeric Code
Afghani	971
Algerian Dinar	12
Argentine Peso	32
Armenian Dram	51
Aruban Guilder	533
Australian Dollar	36
Azerbaijanian Manat	944
Bahamian Dollar	44
Bahraini Dinar	48
Baht	764
Balboa	590
Barbados Dollar	52
Belarusian Ruble	974
Belize Dollar	84
Bermudian Dollar	60
Bolivar	862
Boliviano	68



Brazilian Real 966 Bulgarian Lev 975 Burundi Franc 108 Canadian Dollar 124 Cape Verde Escudo 132 Cayman Islands Dollar 136 Cedi 288 CFA Franc BCEAO 952 CFA Franc BEAC 950 CFP Franc 953 Chilean Peso 152 Colombian Peso 170 Comoro Franc 174 Convertible Marks 977 Cordoba Oro 558 Costa Rican Colon 188 Croatian Kuna 191 Cuban Peso 192 Cyprus Pound 196 Czech Koruna 203 Dalasi 270 Danish Krone 208 Denar 807 Djibouti Franc 262 Dobra 678 Dominican Peso 214 Dong 704 East Caribbean Dollar 951 Egyptian Pound 818	Brazilian Real	986
Bulgarian Lev 975 Burundi Franc 108 Canadian Dollar 124 Cape Verde Escudo 132 Cayman Islands Dollar 136 Cedi 288 CFA Franc BCEAO 952 CFA Franc BEAC 950 CFP Franc 953 Chilean Peso 152 Colombian Peso 170 Comoro Franc 174 Convertible Marks 977 Cordoba Oro 558 Costa Rican Colon 188 Croatian Kuna 191 Cuban Peso 192 Cyprus Pound 196 Czech Koruna 203 Dalasi 270 Danish Krone 208 Denar 807 Djibouti Franc 262 Dobra 678 Dominican Peso 214 Dong 704 East Caribbean Dollar 951 Egyptian Pound 818 El Salvador Colon 222		
Burundi Franc 108 Canadian Dollar 124 Cape Verde Escudo 132 Cayman Islands Dollar 136 Cedi 288 CFA Franc BCEAO 952 CFA Franc BEAC 950 CFP Franc 953 Chilean Peso 152 Colombian Peso 170 Comoro Franc 174 Convertible Marks 977 Cordoba Oro 558 Costa Rican Colon 188 Croatian Kuna 191 Cuban Peso 192 Cyprus Pound 196 Czech Koruna 203 Dalasi 270 Danish Krone 208 Denar 807 Djibouti Franc 262 Dobra 678 Dominican Peso 214 Domg 704 East Caribbean Dollar 951 Egyptian Pound 818 EI Salvador Colon 222 Ethiopian Birr 230 <td></td> <td></td>		
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Cuban Peso 192 Cyprus Pound 196 Czech Koruna 203 Dalasi 270 Danish Krone 208 Denar 807 Djibouti Franc 262 Dobra 678 Dominican Peso 214 Dong 704 East Caribbean Dollar 951 Egyptian Pound 818 EI Salvador Colon 222 Ethiopian Birr 230 Euro 978 Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Gurani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 344 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352		
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El Salvador Colon 222 Ethiopian Birr 230 Euro 978 Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352		951
El Salvador Colon 222 Ethiopian Birr 230 Euro 978 Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Egyptian Pound	818
Euro 978 Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352		222
Euro 978 Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Ethiopian Birr	230
Falkland Islands Pound 238 Fiji Dollar 242 Forint 348 Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	•	
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Franc Congolais 976 Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Fiji Dollar	242
Gibraltar Pound 292 Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Forint	348
Gourde 332 Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Franc Congolais	976
Guarani 600 Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352		292
Guinea Franc 324 Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Gourde	332
Guinea-Bissau Peso 624 Guyana Dollar 328 Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Guarani	600
Guyana Dollar328Hong Kong Dollar344Hryvnia980Iceland Krona352	Guinea Franc	324
Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Guinea-Bissau Peso	624
Hong Kong Dollar 344 Hryvnia 980 Iceland Krona 352	Guyana Dollar	328
Iceland Krona 352		344
	Hryvnia	980
Indian Rupee 356	Iceland Krona	352
	Indian Rupee	356



Iranian Rial	364
Iraqi Dinar	368
Jamaican Dollar	388
Jordanian Dinar	400
Kenyan Shilling	404
Kina	598
Kip	418
Kroon	233
Kuwaiti Dinar	414
Kwacha	454
Kwacha	894
Kwanza	973
Kyat	104
Lari	981
Latvian Lats	428
Lebanese Pound	422
Lek	8
Lempira	340
Leone	694
Liberian Dollar	430
Libyan Dinar	434
Lilangeni	748
Lithuanian Litas	440
Loti	426
Malagascy Ariary	969
Malaysian Ringgit	458
Maltese Lira	470
Manat	795
Mauritius Rupee	480
Metical	943
Mexican Peso	484
Mexican Unidad de Inversion (UID)	979
Moldovan Leu	498
Moroccan Dirham	504
Mvdol	984
Naira	566
Nakfa	232
Namibian Dollar	516
Nepalese Rupee	524
Netherlands Antillian Guikder	532
New Israeli Sheqel	376
New Leu	946
New Taiwan Dollar	901
New Turkish Lira	949
New Zealand Dollar	554
Ngultrum	64
North Korean Won	408
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Norwegian Krone	578
Nuevo Sol	604
Old Leu	642
Ouguiya	478
Palanga	776
Pakistan Rupee	586
Pataca	446
Peso Uruguayo	858
Philippine Peso	608
Pound Sterling	826
Pula	72
Qatari Rial	634
Quetzal	320
Rand	710
Rial Omani	512
Riel	116
Rufiyaa	462
Rupiah	360
Russian Ruble	643
Rwanda Franc	646
Saint Helena Pound	654
Saudi Riyal	682
SDR	960
Serbian Dinar	891
Seychelles Rupee	690
Singapore Dollar	702
Slovak Koruna	703
Solomon Islands Dollar	90
Som	417
Somali Shilling	706
Somoni	972
Sri Lanka Rupee	144
Sudanese Dinar	736
Surinam Dollar	968
Swedish Krona	752
Swiss Franc	756
Syrian Pound	760
Taka	50
Tala	882
Tanzanian Shilling	834
Tenge	398
Tolar	705
Trinidad and Tobago Dollar	780
Tugrik	496
Tunisian Dinar	788
UAE Dirham	784
Uganda Shilling	800
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Unidad de Valor Real	970
Unidades de formento	990
US Dollar	840
Uzbekistan Sum	860
Vatu	548
WIR Euro	947
WIR Franc	948
Won	410
Yemeni Rial	886
Yen	392
Yuan Renminbi	156
Zimbabwe Dollar	716
Zloty	985

5.3 List of valid card types

 $\operatorname{\mathsf{card}\mathsf{Type}}$ parameter can be sent as a numeric or string value. Numeric value is the preferred option.

Numeric Value	String Value
1	EurocardMastercard
2	Visa
3	Amex
4	Diners
5	Jcb
6	CarteBleue
7	Galeria
8	Delta
9	Laser
10	Solo
11	Switch
12	EnRoute
13	Discover
14	VisaDebit
15	VisaElectron
16	MastercardDebit
17	CarteBlanche
18	PrivateLabel
19	Beneficial
20	Gecc