



## **Developer's Guide**

### **Appendices**

#### **Prepared for:**

DataCash Merchants

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## 1. INTRODUCTION

### 1.1 SCOPE

This document contains appendices to supplement the DataCash Developer's Guide.

### 1.2 AUDIENCE

This document is intended to be used by developers, technical personnel and business analysts, to facilitate a successful integration by a merchant to the payment gateways provided by DataCash.

### 1.3 SUPPORT

For any assistance or information pertaining to existing or new DataCash services, please [contact Support](#) via the DataCash website.

## 2. APPENDICES

### 2.1 APPENDIX 1 – LID COMMODITY CODES

These commodity codes can be used for the “Line Item Detail” (LID) Service, which is described in Section 2.2 (Single Card Payments) of the DataCash Developer’s Guide.

Commodity Code	Description
7461	Accounting/tax Consultancy Services
7464	Advertising And Marketing Services
3100	Agricultural Fertilisers
8800	Aircraft Parts
2200	Alcoholic Beverages
1200	Animal Feeding Stuffs
7300	Barbed Wire/fencing
0900	Beverages - Non-alcoholic
8705	Bicycles/tricycles
9000	Binoculars/telescopes
4900	Books; Printed Material
2500	Building Aggregates
6900	Building Bricks/tiles/stones
8507	Burglar & Fire Alarms
9001	Cameras/flashs
7160	Car Hire Services: Qualifying Cars
6562	Car Leasing Services: Qualifying Cars
6565	Car Leasing Services: Non - Qualifying Cars
5700	Carpets/floor Coverings
5561	Catering Services
6901	Sinks, Baths, Washbasins; Other Plumbing/heating Products
2800	Chemicals/acids
3400	Cleaning Products
7468	Cleaning Services
9100	Clocks, Watches & Parts
6200	Clothing
8701	Commercial Motor Vehicles
6563	Commercial Vehicle Leasing Services
7260	Computer Consultancy Services
8405	Computer Hardware
8406	Computer Software
7163	Computer/office Machine Rental
4560	Construction/demolition Services
0400	Dairy Produce
7261	Data Processing Services
8060	Driving Tuition Services

Commodity Code	Description
8509	Electric Lamps
4562	Electrical Contracting
8508	Electrical Switches/fuses/plugs/circuits
8061	Employee Training
9360	Employee Welfare Services
7466	Employment Bureau Services
6561	Equipment Leasing Services
7061	Estate Agency Services
6564	Factoring Services
6760	Financial Administration Services
6560	Financial Services (non Insurance)
8404	Fire Extinguishers
3000	First Aid Products
0300	Fish/seafood Products
6400	Footwear
6362	Freight / Carriage Charges (non Courier / Delivery Service Providers)
6061	Freight Transport Services
0800	Fruit And Fruit Products
8500	Generators/electric Motors
7000	Glassware
8200	Hand Tools
6500	Headgear
5560	Hotel/restaurant Services
8401	Industrial Engines/plant: Parts
3600	Industrial Explosives
8400	Industrial Mechanical Appliances/parts
7100	Industrial Metals (base/processed)
8402	Industrial Plant/equipment
3800	Insecticides/fungicides/disinfectants
6660	Insurance Services - General
4565	Joinery Services
8403	Kitchen Equipment
4200	Leather Cases And Bags
7460	Legal Services - Lawyers/solicitors
9261	Library/archiving Services
0100	Live Animals
2702	Lubricating Oils
8201	Machine Tools
8202	Machine/hand Tool Parts
7262	Maintenance/repair - Office Equipment
7463	Management Consultancy Services

<b>Commodity Code</b>	<b>Description</b>
7462	Market Research Services
9004	Measuring Equipment
0200	Meat/meat Products
9260	Media/news Agency Services
8560	Medical Services
9160	Membership Subscriptions
9003	Microscopes
8700	Motor Cars
8704	Motor Cycles/sidecars
8703	Motor Vehicle Parts (excluding Tyres)
5060	Motor Vehicle Repair/maintenance Services
9200	Musical Instruments
4801	Newsprint
9400	Office Furniture
4800	Office Stationery
7472	Other Business Services
6300	Packing Materials/sacks/bags
7470	Packing Services
8300	Padlocks, Locks, Keys. Safes, Strong Boxes, Other Ironmongery Products
4566	Painting/glazing Services
3200	Paints/varnishes
6060	Passenger Transport
6761	Pension Advisory/administration Services
2701	Petrol/diesel - Road Fuel
9002	Photocopiers
3700	Photographic Film Products
7469	Photographic Services
0600	Plants, Shrubs And Trees
4564	Plastering Services
4563	Plumbing, Heating And Drainage Services
6460	Courier Services (courier / Delivery Services Providers)
2261	Printing Services
7062	Property Management Services
7060	Property Rentals
2260	Publishing Services
8505	Radios
8600	Railway Locomotive Parts
8502	Record/cassette/cd Players
7161	Rental Of Agricultural Machinery
7162	Rental Of Construction Equipment
7164	Rental Of Sports/recreational Equipment

Commodity Code	Description
4561	Roofing Services
5600	Rope, cable, Netting
4000	Rubber Products
7471	Secretarial/translation Services
7467	Site Security Services
2700	Solid Fuel; Heating/ Industrial/ Agricultural Oils
8702	Special Purpose Vehicles
7560	Statutory Charges/licenses
6360	Storage/warehousing Services
8503	Tape Recorders/answering Machines
7465	Technical Analysis Services
6461	Telecommunications Services
8501	Telephones
8506	Television Sets
2400	Tobacco/tobacco Products
9500	Toys, Games And Models
8706	Trailers/trailer Parts
6361	Travel Agency Services
4001	Tyres - Motor Vehicles
6600	Umbrellas And Walking Sticks
9999	Vat: Insurance Repairs
0700	Vegetables And Vegetable Products
8407	Vending Machines
8504	Video Recorders
4802	Wallpaper
3760	Waste Disposal Services
4700	Wood, Timber Products, Pulp And Paper Products



## 2.2 APPENDIX 2 – ACS SIMULATOR

### 2.2.1 Introduction

The DataCash ACS simulator enables you to simulate the behaviour of an Issuing Bank's ACS. This includes sending an authenticated response, a non-authenticated response or a range of invalid and error responses.

It is intended that the ACS simulator be used during merchant integration. It can be used to test both the "3DS With DataCash MPI" and "MPI Only" Services.

### 2.2.2 How to use the ACS simulator

The URL of the ACS that the cardholder is to be directed to is returned in the Enrolment Check Response XML Document. In a test environment this will be the URL of the DataCash ACS simulator.

The simulator gives you control over what response is returned i.e. whether to simulate that the cardholder managed to authenticate themselves or whether an error occurred.

The following fields have to be supplied to the ACS URL using the POST method:

Field	Description
PaReq	The PaReq that was returned in the same Enrolment Check Response as the ACS URL.
TermURL	The URL of the script that will process the response from the ACS.
MD	The MD field gives you a mechanism of tracing transactions. This field should be populated with a unique value. This value will be returned to you, with the PaRes message, when the ACS has finished.

If any of these fields are missing then an error response will be displayed.

The output from the ACS Simulator should be displayed in a popup window, separate from the original checkout page.

Example output from the ACS Simulator can be seen below.

## ACS Simulator

### Supplied Details

**Merchant:** DataCash

**Xid:** 00000000000068307495

**Description:** Test Transaction

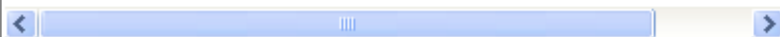
**Card Num:** 4444333322221111

**Expiry Date:** 1501

**Amount:** 17.99

To continue, press the button which corresponds to the required response.

Error  



At the top of the page is information that is contained in the PaReq message. This can be used to check that the correct details are being processed. The page also contains four buttons that give you the ability emulate responses from a real ACS. These buttons are:

Button	Description
Authenticated	The cardholder successfully authenticated himself or herself.
Not Authenticated	The cardholder failed to authenticate himself or herself.
Attempt	The cardholder chose not to register their card during ADS.
Unavailable	There is a communication failure between the ACS and the Issuer's main system.

The error drop down menu can be used to select which error response is to be generated.

Error Code	Description
0 – none	No error occurred
1 - Invalid PAREs Signature	<a href="#">Response code 174 - see FAQ</a>
2 - Invalid PAREs	<a href="#">Response code 176 - see FAQ</a>
98 - Transient system failure	Transient system failure i.e. system is currently busy.
99 - Permanent system failure	Permanent system failure i.e. the database server is down.

Once one of the four buttons has been pressed the popup window will close and the output of the return script, as specified in the TermURL field, will be displayed in the original checkout window.

The following fields will be supplied to the return script using the POST method:

Field	Description
PaRes	A cryptographically signed XML document used to indicate whether or not the cardholder managed to authenticate. It should be returned to DataCash in the <code>threedsecure_authorization_request</code> message. If an error occurs at the ACS, the PaRes will be populated with an error message, but this should not be interpreted or examined by the merchant
MD	This is the value that was passed with the original request to the ACS simulator.

### 2.3 APPENDIX 3 – MAGIC CARD FACILITY FOR 3DS

DataCash provides a magic card facility. This allows particular responses to be received from the DPG when using one of the magic card numbers.

The existing list of magic cards can be found in the [Developers Area](#).

DataCash has extended this functionality to allow certain Enrolment Verification Request responses to be obtained to test 3DS. This is achieved by specifying any of the magic card numbers with an appropriate value for the month in the card expiry date field.

The possible options are:

Value of month in expiry date	Type of Response returned	Return Code
01	Card is enrolled	150
02	Card is not enrolled	162

03	No result received from the directory server	159
04	An invalid response is received from the directory server	160
05	The directory server is running the wrong protocol (SET instead of 3-D Secure)	160
06	3DS Invalid VReq	186
Any other value	'Unable to process' response is received from the directory server	187

It should also be noted that if a non-magic card were used in a 3-D Secure transaction submitted against the testserver host, a response with return code 169 would be received, as shown below:

#### Example XML for error 169

```
<Response>
  <CardTxn>
    <card_scheme>...</card_scheme>
    <country>...</country>
  </CardTxn>
  <datacash_reference>...</datacash_reference>
  <merchantreference>...</merchantreference>
  <mode>TEST</mode>
  <reason>3DS Merchant in test-mode supplied non-magic card</reason>
  <status>169</status>
  <time>...</time>
</Response>
```

Please see the [Developers Area](#) and [Support Centre](#) for information on the return codes.

## 2.4 APPENDIX 4 - REAL TIME FRAUD SCREENING

The details of the "Real Time Fraud Screening" Service are outlined in Section 2.4.3 (Fraud Prevention) of the DPG part of the DataCash Developer's Guide.

In the table below, elements are listed by ReD field name (not DataCash schema names). This is to enable bespoke merchants to identify the DataCash elements required to trigger all the rules set up by ReD.

The following information should be noted about these fields:

- If no Recipient is specified – the Customer Address will be used for the edSHIP fields
- If only one Recipient is specified – the ebSHIP fields will be used in preference to the ebRECIPIENT fields
- If more than one Recipient is specified – the ebRECIPIENT fields will be used and the Customer Address elements will be ignored

ReD field name	DataCash Schema Element	"Real Time Fraud Screening" Request section
ebBILLADDRESS2	moreaddress	BillingAddress
ebBILLAPT	apartment	BillingAddress
ebBILLCITY	city	BillingAddress
ebBILLCOUNTRY	country	BillingAddress
ebBILLSTATE	region	BillingAddress
ebBILLSTREET	streetaddress	BillingAddress
ebBILLZIPCD	postcode	BillingAddress
ebCARRIER	carrier	Shipping
ebCINPRESENT	cv2_present	Cv2Avs
ebCORPADDRESS2	moreaddress	Address
ebCORPCOUNTRY	country	Address
ebCORPFAX	fax	Company
ebCORPNAME	name	Company
ebCORPPHONE	telephone	Company
ebCORPPONBR	pobox	Address
ebCORPPURCHDESC	purchase_description	Company
ebCORPSTATE	region	Address
ebCORPSTREET	streetaddress	Address
ebCORPSUITE	apartment	Address
ebCORPCITY	city	Address

ebCORPZIPCD	postcode	Address
ebCUSTAGE	age	Customer
ebCUSTBDATE	date_of_birth	Customer
ebCUSTCOOKIES	cookies	CustomerHistory
ebCUSTEMAIL	email	Customer
ebCUSTFAX	fax	Customer
ebCUSTFIRSTNAME	forename	Customer
ebCUSTHOMEPHONE	alt_telephone	Customer
ebCUSTID	account	CustomerHistory
ebCUSTIP	ip_address	Customer
ebCUSTLASTNAME	surname	Customer
ebCUSTMAXAGE	max_age	Customer
ebCUSTMIDNAME	middlename	Customer
ebCUSTMINAGE	min_age	Customer
ebCUSTSALUTATION	salutation	Customer
ebCUSTSSN	national_id	Customer
ebCUSTTM	pctime	Customer
ebCUSTWORKPHONE	telephone	Customer
ebDEFFORMFILL	formfill	CustomerHistory
ebFORGOTPWD	forgot_password	CustomerHistory
ebGIFTCARDTYPE	attribute card	Order, LineItem
ebGIFTMSG	gift	Order, LineItem
ebHANDLING	handling	OrderDetails
ebITEMCARRIER	carrier	Shipping
ebITEMGIFTCARDTYPE	attribute card	Order, LineItem
ebITEMGIFTMESSAGE	gift	Order, LineItem
ebITEMSHIPCOMMENTS	comments	Shipping
ebITEMSHIPINSTRUCTION	instructions	Shipping
ebITEMSHIPMENTNO	tracking_number	Shipping
ebITEMSHIPMETHOD	method	Shipping
ebMANPARTNO	attribute manpartno	LineItem
ebMANUFACTURER	attribute manufacturer	LineItem
ebPASSWORD	password_access	CustomerHistory
ebPREVIOUSCUST	previous_cust	CustomerHistory
ebPRODCATEGORY	attribute category	LineItem

ebPRODCD	attribute product_code	LineItem
ebPRODESC	description	LineItem
ebPRODQUANTITY	attribute quantity	LineItem
ebPRODSKU	attribute sku	LineItem
ebPRODTYPE	attribute type	LineItem
ebPRODUNITPRICE	attribute unit_price	LineItem
ebRECIPIENTADDRESS2	moreaddress	Address
ebRECIPIENTAPT	apartment	Address
ebRECIPIENTCITY	city	Address
ebRECIPIENTCOUNTRY	country	Address
ebRECIPIENTEMAIL	email	Recipient
ebRECIPIENTFIRSTNAME	forename	Recipient
ebRECIPIENTLASTNAME	surname	Recipient
ebRECIPIENTMIDNAME	middlename	Recipient
ebRECIPIENTPHONE	telephone	Recipient
ebRECIPIENTSALUTATION	salutation	Recipient
ebRECIPIENTSTATE	region	Address
ebRECIPIENTSTREET	streetaddress	Address
ebRECIPIENTZIPCD	postcode	Address
ebREGLOYALTY	loyalty	CustomerHistory
ebREGPROMOS	promos	CustomerHistory
ebRETURNALLOWED	returns_allowed	Order
ebSHIPADDRESS2	moreaddress	Address
ebSHIPAPT	apartment	Address
ebSHIPCITY	city	Address
ebSHIPCOMMENTS	comments	Shipping
ebSHIPCOUNTRY	country	Address
ebSHIPEMAIL	email	Recipient
ebSHIPFIRSTNAME	forename	Recipient
ebSHIPINSTRUCTION	instructions	Shipping
ebSHIPLASTNAME	surname	Recipient
ebSHIPMENTNO	tracking_number	Shipping
ebSHIPMETHOD	method	Shipping
ebSHIPMIDNAME	middlename	Recipient
ebSHIPPHONE	telephone	Recipient

ebSHIPSALUTATION	salutation	Recipient
ebSHIPSTATE	region	Address
ebSHIPSTREET	streetaddress	Address
ebSHIPZIPCD	postcode	Address
ebSUBTOTAL	subtotal	OrderDetails
ebTAX	tax	OrderDetails
ebTRANCATEGORY	transactionsouce	TxnDetails
ebUPC	attribute upc	LineItem
ebWEBSITE	website	CustomerHistory

## 2.5 APPENDIX 5 – REAL TIME FRAUD SCREENING - GIFT OCCASIONS

The details of the "Real Time Fraud Screening" Service are outlined in Section 2.4.7 of the Developer's Guide.

Code	Description
1	Celebrate Fall
2	Grandparent's Day
4	Independence Day
A	Anniversary
B	Birthday
C	Congratulations
D	April Fool's Day
E	Easter
F	Father's Day
G	Graduation
H	Holiday
I	Season's Greeting
J	Passover
K	Kwanzaa
L	Halloween
M	Mother's Day
N	New Year's Day
O	Bosses' Day
P	St Patrick's Day
Q	Sweetest Day
R	Christmas
S	Baby Shower



T	Thanksgiving
U	Other
V	Valentine's Day
W	Wedding
X	Secretary's Day
Y	Chinese New Year
Z	Hanukkah

## 2.6 APPENDIX 6 – APG STATUS CODE AND ERROR CODE LIST

Type of Message	Status Code	Status Description
APG status codes	0	Sent for authorisation
	0	Information Supplied (Only for Ukash GetSettlement value)
	1	Authorised
	2	Pending
	3	Error
	4	Refused
	5	Redirect
	8	Sent for cancel
	9	Cancelled
	12	Not Found
	18	Unknown
	20	Fraud Rejected

Type of Message	Error Code	Error Description
APG error messages	001	PurchaseDetails and PaymentMethodDetails must be supplied
	002	PurchaseDetails.AccountDetails must be supplied
	002	UKashItem.AccountItem must be supplied
	002	AccountDetails must be supplied
	003	PurchaseDetails.BillingDetails must be supplied
	004	PurchaseDetails.BillingDetails.AddressDetails must be supplied
	005	PurchaseDetails.BillingDetails.AmountDetails must be supplied
	005	UKashItem.AmountItem must be supplied
	005	DPGReferenceId must be supplied
	006	PurchaseDetails.PersonalDetails must be supplied
	007	PurchaseDetails.TransactionDateTime must be supplied
	008	PurchaseDetails.AccountDetails.AccountName must be supplied
	008	UKashItem.AccountDetails.AccountName must be supplied
	008	AccountDetails.AccountName must be supplied
	009	PurchaseDetails.AccountDetails.AccountPIN must be supplied
	009	UKashItem.AccountDetails.AccountPIN must be supplied
	009	AccountDetails.AccountPIN must be supplied
	010	PurchaseDetails.AccountDetails.CompanyId must be supplied

010	UKashItem.AccountDetails.CompanyId must be supplied
010	AccountDetails.CompanyId must be supplied
011	PurchaseDetails.PersonalDetails.DateOfBirth value invalid
012	PurchaseDetails.BillingDetails.AmountDetails.Amount value invalid
012	UKashItem.AmountDetails.Amount value invalid
013	PurchaseDetails.BillingDetails.AmountDetails.CurrencyCode value invalid
013	UKashItem.AmountDetails.CurrencyCode value invalid
013	DBTItem.CurrencyCode is invalid
014	PurchaseDetails.TransactionId value must be supplied
014	UKashItem.TransactionId value must be supplied
015	PurchaseDetails.TransactionId must be less than or equal to 16 characters
015	UKashItem.TransactionId must be less than or equal to 16 characters
016	PurchaseDetails.TransactionId must contain _
016	PurchaseDetails.BillingDetails.SaleAmountDetails.Amount value invalid
016	PurchaseDetails.BillingDetails.SaleAmountDetails.CurrencyCode value invalid
016	PurchaseDetails.SuccessURL and PurchaseDetails.FailureURL need to be provided
016	PurchaseDetails.SuccessURL value is invalid
016	PurchaseDetails.FailureURL value is invalid
016	UKashItem.TransactionId must contain _
017	PurchaseDetails.AccountDetails.CompanyId value invalid
017	AccountDetails.CompanyId value invalid
018	PurchaseDetails.AccountDetails.AccountName value invalid
018	AccountDetails.AccountName value invalid
019	PurchaseDetails.AccountDetails.AccountName not configured
019	AccountDetails.AccountName not configured
020	PurchaseDetails.AccountDetails.AccountPIN value invalid
020	AccountDetails.AccountPIN value invalid
021	PurchaseDetails.AccountDetails.AccountPIN not configured
021	AccountDetails.AccountPIN not configured
022	PurchaseDetails.TransactionId must be unique
022	PurchaseDetails.PaymentMethod not Active
022	UKashItem.TransactionId must be unique
022	UKashItem.PaymentMethod not Active
022	UKashItem.AmountDetails.CurrencyCode is not valid
023	PurchaseDetails.BillingDetails.AmountDetails.CurrencyCode value invalid
024	Invalid PurchaseDetails.BillingDetails.AmountDetails.CurrencyCode and PurchaseDetails.BillingDetails.AmountDetails.Exponent combination
025	PurchaseDetails.BillingDetails.SaleAmountDetails.CurrencyCode value invalid

026	Invalid PurchaseDetails.BillingDetails.SaleAmountDetails.CurrencyCode and PurchaseDetails.BillingDetails.SaleAmountDetails.Exponent combination
027	PurchaseDetails.TransactionDateTime value invalid
030	PurchaseDetails.BillingDetails.AmountDetails.Exponent value invalid
030	UKashItem.AmountDetails.Exponent value invalid
030	UKashItem.AccountNumber must be supplied
035	Transaction not found
200	AccountNumber must be supplied
200	AccountDetails must be supplied
201	AccountPIN must be supplied
201	AmountDetails must be supplied
202	UserIP must be supplied
202	ActionType value invalid
203	amountDetails.Amount value invalid
204	amountDetails.CurrencyCode value invalid
205	amountDetails.Exponent value invalid
206	Modification.amountDetails are invalid
207	Modification.amountDetails conflicts with referred transaction
208	Modification.DPGReferenceId refers to transaction that was unsuccessful
209	Modification.DPGReferenceId refers to transaction with unknown typeOfAction
210	Modification.DPGReferenceId refers to transaction that cannot be cancelled
211	Modification.DPGReferenceId refers to transaction that cannot be captured
212	Modification.DPGReferenceId refers to transaction that cannot be refunded
295	EndDate must be formatted correctly: mm/dd/yyyy
296	Frequency must be sent
296	StartDate must be formatted correctly: mm/dd/yyyy
297	StartDate must be sent
298	Recurring transactions can only be used with Authorise and Capture
299	First 8 digits of TransactionID must be unique
300	AccountNumber must be supplied
301	RoutingNumber must be supplied
301	FinancialAccountNumber must be supplied
302	BillingDetails.AddressDetails must be supplied
302	Currency Conversion Error: :Invalid exchange rate retrieved
302	Currency Conversion Error: :Failed to retrieve rate version
303	BillingDetails.AddressDetails.StreetLine1 must be supplied
303	Currency Conversion: :Exchange rate retrieved was older than 4 days
304	BillingDetails.AddressDetails.City must be supplied
305	BillingDetails.AddressDetails.StateProvince must be supplied
306	BillingDetails.AddressDetails.Country must be supplied

307	BillingDetails.AddressDetails.PostalCode must be supplied
308	PersonalDetails.SSN must be supplied
309	PersonalDetails.FirstName must be supplied
310	AccountNumber must be supplied
310	PersonalDetails.LastName must be supplied
311	PersonalDetails.Telephone1 must be supplied
312	PersonalDetails.Telephone1_AreaCode must be supplied
313	Failed security checks
313	PersonalDetails.Email must be supplied
313	UserIP must be supplied
314	Failed security checks
314	BillingDetails.AddressDetails.Country value invalid
315	Failed security checks
315	BillingDetails.AddressDetails.Country value invalid
316	FinancialAccountNumber value invalid
317	FinancialAccountNumber failed ABA Routing Code Checksum
317	AccountNumber value invalid
318	PersonalDetails.SSN value invalid
319	BillingDetails.AddressDetails.PostalCode value invalid
320	AccountNumber value invalid
321	BillingDetails.AddressDetails.StateProvince value invalid
322	PersonalDetails.Telephone1 value invalid
323	PersonalDetails.Telephone1_AreaCode value invalid
323	PersonalDetails.Email value invalid
324	PersonalDetails.FirstName value invalid
324	BillingDetails.AddressDetails.City value invalid
325	PersonalDetails.LastName value invalid
326	UserIP value invalid
400	AccountNumber must be supplied
401	AccountPIN must be supplied
402	Either SortCode and AccountNumber OR IBAN OR PaymentReference must be supplied - no other combinations permitted.
403	Either DelayDays OR DebitDate must be supplied, not both or neither
404	DebitDate is not a valid date
405	Invalid combination of customer name and address details
406	PurchaseDetails.BillingDetails.Name must be supplied
407	Either SortCode and AccountNumber OR IBAN must be supplied - no other combinations permitted.
408	TypeOfAction is missing or invalid.
409	DebitDate is in the past
411	SortCode must be included for giropay payment
500	BillingDetails.AddressDetails must be supplied
501	BillingDetails.AddressDetails.StreetLine1 must be supplied
502	BillingDetails.AddressDetails.City must be supplied
503	BillingDetails.AddressDetails.StateProvince must be supplied
504	BillingDetails.AddressDetails.Country must be supplied
505	BillingDetails.AddressDetails.PostalCode must be supplied

506	ShippingDetails must be supplied
507	ShippingDetails.AddressDetails must be supplied
508	ShippingDetails.AddressDetails.StreetLine1 must be supplied
509	ShippingDetails.AddressDetails.City must be supplied
510	ShippingDetails.AddressDetails.StateProvince must be supplied
511	ShippingDetails.AddressDetails.Country must be supplied
512	ShippingDetails.AddressDetails.PostalCode must be supplied
513	BillingDetails.AddressDetails.Country value invalid
514	ShippingDetails.AddressDetails.Country.Length value invalid
515	PersonalDetails.FirstName must be supplied
516	PersonalDetails.LastName must be supplied
517	PersonalDetails.Email must be supplied
518	PersonalDetails.Telephone1 must be supplied
519	PersonalDetails.Telephone2_CountryCode must be supplied, and must be larger than zero
520	PersonalDetails.Telephone2_AreaCode must be supplied, and must be larger than zero
521	PersonalDetails.Telephone2 must be supplied
600	UKashItem.AccountNumber must be supplied
601	UKashItem.AccountPIN must be supplied
602	UKashItem.AccountPIN must be a numeric
603	UKashItem.AccountPIN must be 4 digits long
604	UKashItem.AccountNumber must be 16 or 19 digits long
605	UKashItem.AccountValue must be supplied
606	UKashItem.TypeOfRedemption must be supplied
607	RetrieveConvertedAmount procedure
607	UKashItem.AccountNumber does not comply to the Luhn Algorithm
608	Error in Currency Conversion
609	OneClickItem.ServiceType is invalid
610	OneClickItem.ServiceType must be supplied
610	DBTItem.ServiceType must be supplied
611	DBTItem.CurrencyCode must be supplied
612	DBTItem.FirstName must be supplied
612	DBTItem.LastName must be supplied
614	GetRateVersion procedure::Could not retrieve rate version
800	AccountNumber must be supplied
800	DBTItem.AccountNumber must be supplied
801	Could not connect to the processor - the operation has timed-out
802	PurchaseDetails.PersonalDetails.FirstName is invalid
803	PurchaseDetails.PersonalDetails.LastName is invalid
804	PurchaseDetails.BillingDetails.PostalCode is invalid
805	PurchaseDetails.BillingDetails.PostalCode length is invalid
806	PurchaseDetails.BillingDetails.StateProvince length is invalid
807	PurchaseDetails.BillingDetails.StateProvince is invalid
808	PurchaseDetails.BillingDetails.Country is invalid
809	PurchaseDetails.CustomerReference must be supplied
812	The InstaDebit notification is invalid
9007	No Valid Protocols for PayMethod, Merchant, and Currency

	9999	No OrderID
	9999	Internal System Error
	1529 5	Digest key not correct. Message could have been tampered with

## 2.7 APPENDIX 7 – APG PROCESSOR / PAYMENT METHOD TYPES

Payment Method Type	Description	Full Description
MB	Moneybookers	<p>Moneybookers is a web based wallet which allows customers worldwide to make instant purchases on the Internet. It is a fast, easy and secure way to make deposits and withdrawals with online merchants and is an excellent alternative to credit cards. Funding of the wallet is dependent on the user's country of residence.</p> <p>Client Registration Site – <a href="https://www.moneybookers.com/app/register.pl">https://www.moneybookers.com/app/register.pl</a></p>
NT	Neteller	<p>NETELLER is an e-wallet solution enabling funding and transfer (to/from merchant) of funds. Funding options available are dependant on the consumer's geographical location.</p> <p>instaCASH is an instant electronic transfer available to US and Canadian residents. How it works is that a consumer enters the last 4 digits of their bank account registered with NETELLER, if there are insufficient funds in the consumer's NETELLER account to cover the transfer, funds will be pulled from the bank account. The NETELLER ATM Card is accepted worldwide and is a convenient form of withdrawal for clients.</p> <p>Client Registration Site – <a href="https://www.NETELLER.com/signup/index.jsf">https://www.NETELLER.com/signup/index.jsf</a></p>
CL	Click2Pay	<p>CLICK2PAY is an e-wallet solution that allows account users to transfer funds and make real-time payments online. Merchants are also able to transfer monies to the e-wallet account.</p> <p>Funding of the wallet is dependent on the user's country of residence, but includes Credit Card, Debit Card, Direct Debit/ACH, Bank Deposit and Bank Wire. A user is able to make a purchase with his/her CLICK2PAY account for a value in excess of his/her CLICK2PAY account balance. The surplus amount is taken from the auto-funding account that the user specified at time of account registration CLICK2PAY returns a reference to the funding method used, where Credit Card includes credit cards and selected debit cards; and Bank Transfer includes Direct Debit and ACH.</p> <p>Client Registration Site – <a href="https://click2pay.wirecard.com/click2pay/user_registration.c2p">https://click2pay.wirecard.com/click2pay/user_registration.c2p</a></p>



UK	Ukash	Ukash is a voucher based payment method available at any store displaying the PayPoint, PayZone or e-pay signs across Europe. The 19-digit Ukash Voucher number may then be used at any online store supporting the Ukash payment method.
EN	eNETS	eNETS, a wholly owned subsidiary of NETS, is an online payment gateway in Singapore. eNETS processes both credit card and direct debit transactions from bank accounts in Singapore and China.
BU	ClickandBuy	ClickandBuy is an e-wallet solution that allows account users to transfer funds and make real-time payments online. Merchants are also able to transfer monies to the e-wallet account. Funding of the wallet is dependent on the user's country of residence. A user is able to make a purchase with his/her ClickandBuy account for a value in excess of his/her ClickandBuy account balance. The surplus amount is funded with the preferred method of payment registered to the user's account; ClickandBuy do not return a reference to the funding method used. ClickandBuy do not return any error messaging in the event of a declined transaction. Client Registration Site – <a href="https://eu.clickandbuy.com/registration/http://eu.clickandbuy.com/">https://eu.clickandbuy.com/registration/http://eu.clickandbuy.com/</a>
OC	OneClick	Envoy Services Ltd is a UK incorporated payment technology and service provider for the corporate sector. Envoy provides services to both online and offline companies requiring localized and low cost bill collection and payment execution on a cross border basis.



PF	PaySafeCard	<p>Paysafecard is a prepaid card solution. It can be used as payment at a variety of online stores. The prepaid card can be purchased at various retail outlets (e.g. tobacco shops, filling stations) as well as online. The cards are sold in fixed denominations e.g. 10, 25, 50, etc in different currencies. Paysafecard is different from other wallet solutions in that the consumer does not hold an account at Paysafecard.</p> <p>During the purchase process, the consumer is redirected to the Paysafecard website to enter in their 16-digit PIN number. This is a unique number relating to the card that was purchased. It can be found on the card.</p> <p>The user can enter up to 10 different PIN numbers for one purchase. The cards can be of varying currencies. Paysafecard will do the necessary currency conversion to sum up the values of the cards entered to determine whether there is a sufficient amount to complete the purchase.</p> <p>If there is a sufficient amount, the user will be redirected to a second Paysafecard page where the user will be asked to confirm the transaction and be shown the balance remaining on the card(s) entered. The cards will be used up in the order entered and the last card will hold any remaining credit.</p> <p>If there is an insufficient amount to complete the purchase, the user will be informed that there are insufficient funds and be given the opportunity to enter more cards. The user will not be redirected back to the merchant until he has entered valid PIN numbers for the sufficient amount.</p>
BT	Direct Bank Transfer	<p>Direct Bank Transfer (DBT) is a non real-time bank wire solution whereby users can make a local bank deposit from their personal bank accounts via online banking, telephone banking or in person over-the-counter. DataCash provides a list of current DBT supported countries to the merchant after which the merchant can request banking details for a particular country. The user would then use these details to make a local bank deposit and once the deposit had been made, the merchant would be notified by DataCash.</p>
IN	InstaDebit	<p>INSTADEBIT Services Inc. provides such a transaction platform to merchants with competitive pricing and near-zero charge-back, by partnering with major industry players and employing cutting edge risk management technology. Users are able to access funds from their bank accounts and transfer to merchants instantly.</p>

EV	ExperCash	In Germany the ELV system ( <i>Elektronisches Lastschriftverfahren</i> ) is the most popular method of payment among customers in an online environment. Approximately 45% of end customers prefer this form of payment. The ELV process is a simple one and can be utilised by anyone who is in possession of a German cheque account. The customer supplies his or her bank account details to you as the Merchant and, based on these details, the amount payable is debited from the customer's bank account.
EL	ElectronicCheck	Electronic Check Processing, commonly referred to as eCheck is a popular electronic payment solution in the US and Canada designed to streamline payments. ECheck payments directly debit a consumer's bank account in respect of goods and/or services.

## 2.8 APPENDIX 8 – STATE / PROVINCE / COUNTRY CODE LIST

Country	Description	Code
United States	Alabama	AL
	Alaska	AK
	Arizona	AZ
	Arkansas	AR
	California	CA
	Colorado	CO
	Connecticut	CT
	Delaware	DE
	District of Columbia	DC
	Florida	FL
	Georgia	GA
	Hawaii	HI
	Idaho	ID
	Illinois	IL
	Indiana	IN
	Iowa	IA
	Kansas	KS
	Kentucky	KY
	Louisiana	LA
	Maine	ME
	Maryland	MD
	Massachusetts	MA
	Michigan	MI
	Minnesota	MN
	Mississippi	MS
	Missouri	MO
	Montana	MT
	Nebraska	NE
	Nevada	NV

	New Hampshire	NH
	New Jersey	NJ
	New Mexico	NM
	New York	NY
	North Carolina	NC
	North Dakota	ND
	Ohio	OH
	Oklahoma	OK
	Oregon	OR
	Pennsylvania	PA
	Rhode Island	RI
	South Carolina	SC
	South Dakota	SD
	Tennessee	TN
	Texas	TX
	Utah	UT
	Vermont	VT
	Virginia	VA
	Washington	WA
	West Virginia	WV
	Wisconsin	WI
	Wyoming	WY
	Canada	CN
	International	IT
	Puerto Rico	PR
	U.S. Virgin Islands	VI
	Northern Mariana Is.	MP
	Guam	GU
	American Samoa	AS
	Pal au	PW
	Armed Forces Americas	AA
	Armed Forces Europe	AE
	Armed Forces Pacific	AP
	United States Federal	US
Canada	Alberta	AB
	British Columbia	BC
	Manitoba	MB
	New Brunswick	NB
	Newfoundland	NF
	Nova Scotia	NS
	Northwest Territories	NT
	Nunavut	NU
	Ontario	ON
	Prince Edward Island	PE
	Quebec	QC
	Saskatchewan	SK
	Yukon	YT

United Kingdom	England	EN
	Northern Ireland	NO
	Scotland	SC
	Wales	WA
Ireland	Clare	CE
	Cork	CK
	Cavan	CN
	Carlow	CW
	Donegal	DL
	Dublin	DN
	Galway	GY
	Kildare	KE
	Kilkenny	KK
	Kerry	KY
	Longford	LD
	Louth	LH
	Limerick	LK
	Leitrim	LM
	Laois	LS
	Meath	MH
	Monaghan	MN
	Mayo	MO
	Offaly	OY
	Roscommon	RN
	Sligo	SO
	Tipperary	TY
	Waterford	WD
	Westmeath	WH
	Wicklow	WW
	Wexford	WX
China	Beijing	Beijing
	Tianjin	Tianjin
	Hebei	Hebei
	Shanxi	Shanxi
	Nei Mongol	Nei Mongol
	Liaoning	Liaoning
	Jilin	Jilin
	Heilongjiang	Heilongjiang
	Shanghai	Shanghai
	Jiangsu	Jiangsu
	Zhejiang	Zhejiang
	Anhui	Anhui
	Fujian	Fujian
	Jiangxi	Jiangxi
	Shandong	Shandong

	Henan	Henan
	Hubei	Hubei
	Hunan	Hunan
	Guangdong	Guangdong
	Guangxi	Guangxi
	Hainan	Hainan
	Sichuan	Sichuan
	Guizhou	Guizhou
	Yunnan	Yunnan
	Xizang Zìzhìqū (Tibet)	Xizang Zìzhìqū (Tibet)
	Shaanxi	Shaanxi
	Gansu	Gansu
	Qinghai	Qinghai
	Ningxia	Ningxia
	Xinjiang	Xinjiang
	Taiwan	Taiwan
	Xianggang (Hong Kong)	Xianggang (Hong Kong)
	Aomen (Macao)	Aomen (Macao)
	Chongqìng	Chongqìng
	Gaoxiong	Gaoxiong
	Taibei	Taibei

## 2.9 APPENDIX 9 – COUNTRY CODE LIST

Description	Code
Afghanistan	AF
Albania	AL
Algeria	DZ
American Samoa	AS
Andorra	AD
Angola	AO
Anguilla	AI
Antarctica	AQ
Antigua and Barbuda	AG
Argentina	AR
Armenia	AM
Aruba	AW
Australia	AU
Austria	AT
Azerbaijan	AZ
Bahamas	BS
Bahrain	BH
Bangladesh	BD
Barbados	BB
Belarus	BY

Belgium	BE
Belize	BZ
Benin	BJ
Bermuda	BM
Bhutan	BT
Bolivia	BO
Bosnia and Herzegovina	BA
Botswana	BW
Bouvet Island	BV
Brazil	BR
British Indian Ocean Territory	IO
Brunei Darussalam	BN
Bulgaria	BG
Burkina Faso	BF
Burundi	BI
Cambodia	KH
Cameroon	CM
Canada	CA
Cape Verde	CV
Cayman Islands	KY
Central African Republic	CF
Chad	TD
Chile	CL
China	CN
Christmas Island	CX
Cocos (Keeling) Islands	CC
Colombia	CO
Comoros	KM
Congo	CG
Cook Islands	CK
Costa Rica	CR
Côte D'Ivoire	CI
Croatia	HR
Cuba	CU
Cyprus	CY
Czech Republic	CZ
Denmark	DK
Djibouti	DJ
Dominica	DM
Dominican Republic	DO
East Timor	TP
Ecuador	EC
Egypt	EG

El Salvador	SV
Equatorial Guinea	GQ
Eritrea	ER
Estonia	EE
Ethiopia	ET
Falkland Islands	FK
Faroe Islands	FO
Fiji	FJ
Finland	FI
France	FR
Metropolitan France	FX
French Guiana	GF
French Polynesia	PF
French Southern Territories	TF
Gabon	GA
Gambia	GM
Georgia	GE
Germany	DE
Ghana	GH
Gibraltar	GI
Greece	GR
Greenland	GL
Grenada	GD
Guadeloupe	GP
Guam	GU
Guatemala	GT
Guinea	GN
Guinea-Bissau	GW
Guyana	GY
Haiti	HT
Heard and McDonald Islands	HM
Honduras	HN
Hong Kong	HK
Hungary	HU
Iceland	IS
India	IN
Indonesia	ID
Iran (Islamic Republic of)	IR
Iraq	IQ
Ireland	IE
Israel	IL
Italy	IT
Jamaica	JM

Japan	JP
Jordan	JO
Kazakhstan	KZ
Kenya	KE
Kiribati	KI
Korea, Democratic People's Republic of	KP
Korea, Republic of	KR
Kuwait	KW
Kyrgyzstan	KG
Lao People's Democratic Republic	LA
Latvia	LV
Lebanon	LB
Lesotho	LS
Liberia	LR
Libyan Arab Jamahiriya	LY
Liechtenstein	LI
Lithuania	LT
Luxembourg	LU
Macau	MO
Macedonia, the former Yugoslav Republic of	MK
Madagascar	MG
Malawi	MW
Malaysia	MY
Maldives	MV
Mali	ML
Malta	MT
Marshall Islands	MH
Martinique	MQ
Mauritania	MR
Mauritius	MU
Mayotte	YT
Mexico	MX
Micronesia, Federated States of	FM
Moldova, Republic of	MD
Monaco	MC
Mongolia	MN
Montserrat	MS
Morocco	MA
Mozambique	MZ
Myanmar	MM
Namibia	NA
Nauru	NR
Nepal	NP



The Netherlands	NL
New Caledonia	NC
New Zealand	NZ
Nicaragua	NI
Niger	NE
Nigeria	NG
Niue	NU
Norfolk Island	NF
Northern Mariana Islands	MP
Norway	NO
Oman	OM
Pakistan	PK
Pal au	PW
Panama	PA
Papua New Guinea	PG
Paraguay	PY
Peru	PE
Philippines	PH
Pitcairn	PN
Poland	PL
Portugal	PT
Puerto Rico	PR
Qatar	QA
Reunion	RE
Romania	RO
Russian Federation	RU
Rwanda	RW
Saint Kitts and Nevis	KN
Saint Lucia	LC
Saint Vincent and the Grenadines	VC
Samoa	WS
San Marino	SM
Sao Tome and Principe	ST
Saudi Arabia	SA
Senegal	SN
Seychelles	SC
Sierra Leone	SL
Singapore	SG
Slovakia (Slovak Republic)	SK
Slovenia	SI
Solomon Islands	SB
Somalia	SO
South Africa	ZA

Spain	ES
Sri Lanka	LK
St. Helena	SH
St. Pierre and Miquelon	PM
Sudan	SD
Suriname	SR
Svalbard and Jan Mayen Islands	SJ
Swaziland	SZ
Sweden	SE
Switzerland	CH
Syrian Arab Republic	SY
Taiwan	TW
Tajikistan	TJ
Tanzania, United Republic of	TZ
Thailand	TH
Togo	TG
Tokelau	TK
Tonga	TO
Trinidad and Tobago	TT
Tunisia	TN
Turkey	TR
Turkmenistan	TM
Turks and Caicos Islands	TC
Tuvalu	TV
Uganda	UG
Ukraine	UA
United Arab Emirates	AE
United Kingdom	GB
United States	US
United States Minor Outlying Islands	UM
Uruguay	UY
Uzbekistan	UZ
Vanuatu	VU
Vatican City State (Holy See)	VA
Venezuela	VE
Vietnam	VN
Virgin Islands (British)	VG
Virgin Islands (U.S.)	VI
Wallis and Futuna Islands	WF
Western Sahara	EH
Yemen	YE
Yugoslavia	YU
Zaire	ZR

Zambia	ZM
Zimbabwe	ZW

**2.10 APPENDIX 10 – ISO CURRENCY CODES AND EXPONENTS**

Alpha code	Numeric code	Exponent	Currency	Entity
AED	784	2	UAE Dirham	United Arab Emirates
AFA	004	2	Afghani	Afghanistan
ALL	008	2	Albanian Lek	Albania
ANG	532	2	Antillean Guilder	Netherlands Antilles
AOK	024		Kwanza	Angola
ARP	032	2	Argentine Peso	Argentina
ATS	040		Schilling	Austria
AUD	036	2	Australian Dollar	Australia
BBD	052	2	Barbados Dollar	Barbados
BDT	050	2	Taka	Bangladesh
BEF	056		Belgian Franc	Belgium
BGL	100		Lev	Bulgaria
BHD	048	3	Bahraini Dinar	Bahrain
BIF	108	0	Burundi Franc	Burundi
BMD	060	2	Bermudan Dollar	Bermuda
BND	096	2	Brunei Dollar	Brunei
BOP	068	2	Bolivian Peso	Bolivia
BRC	076		Brazilian Cruzeiro	Brazil
BRL	986	2	Brazilian Real	Brazil
BSD	044	2	Bahamian Dollar	Bahamas
BUK	104	2	Kyat	Burma
BWP	072	2	Pula	Botswana
BZD	084	2	Belize Dollar	Belize
CAD	124	2	Canadian Dollar	Canada
CHF	756	2	Swiss Franc	Switzerland
CLP	152	2	Chilean Peso	Chile
CNY	156	2	Chinese Yuan Renminbi	China
COP	170	2	Colombian Peso	Colombia
CRC	188	2	Costa Rican Colon	Costa Rica
CSK	200		Koruna	Czechoslovakia
CZK	203	2	Czech Koruna	Czech Republic
CUP	192	2	Cuban Peso	Cuba
CVE	132	2	Cape Verde Escudo	Cape Verde
CYP	196	2	Cyprus Pound	Cyprus
DDM	278		Mark der DDR	German Democratic Republic
DEM	280		Deutsche Mark	Germany, Federal Republic of
DJF	262	0	Djibouti Franc	Djibouti
DKK	208	2	Danish Krone	Denmark
DOP	214	2	Dominican Peso	Dominican Republic

DZD	012	2	Algerian Dinar	Algeria
ECS	218	2	Sucre	Ecuador
EGP	818	2	Egyptian Pound	Egypt
ESP	724		Spanish Peseta	Spain
ETB	230	2	Ethiopian Birr	Ethiopia
EUR	978	2	Euro	European Union
FIM	246		Markka	Finland
FJD	242	2	Fiji Dollar	Fiji
FKP	238	2	Falkland Islands Pound	Falkland Islands (Malvinas)
FRF	250		French Franc	France
GBP	826	2	Pound Sterling	United Kingdom
GHC	288	2	Cedi	Ghana
GIP	292	2	Gibraltar Pound	Gibraltar
GMD	270	2	Dalasi	Gambia
GNS	324	0	Syli	Guinea
GQE	226		Ekwele	Equatorial Guinea
GRD	300		Drachma	Greece
GTQ	320	2	Quetzal	Guatemala
GWP	624	2	Guinea-Bissau Peso	Guinea-Bissau
GYD	328	2	Guyana Dollar	Guyana
HKD	344	2	Hong Kong Dollar	Hong Kong
HNL	340	2	Lempira	Honduras
HTG	332	2	Gourde	Haiti
HUF	348	2	Forint	Hungary
IDR	360	0	Rupiah	Indonesia
IEP	372		Irish Pound	Ireland
ILS	376	2	Shekel	Israel
INR	356	2	Indian Rupee	India
IQD	368	3	Iraqi Dinar	Iraq
IRR	364	2	Iranian Rial	Iran
ISK	352	2	Iceland Krona	Iceland
ITL	380		Lira	Italy
JMD	388	3	Jamaican Dollar	Jamaica
JOD	400	2	Jordanian Dinar	Jordan
JPY	392	0	Yen	Japan
KES	404	2	Kenyan Shilling	Kenya
KHR	116	2	Riel	Kampuchea, Democratic
KMF	174	0	Comoros Franc	Comoros
KPW	408	2	North Korean Won	Korea, Democratic People's of
KRW	410	0	Won	Korea, Republic of
KWD	414	3	Kuwaiti Dinar	Kuwait

KYD	136	2	Cayman Islands Dollar	Cayman Islands
LAK	418	2	Kip	Lao People's Democratic Republic
LBP	422	2	Lebanese Pound	Lebanon
LKR	144	2	Sri Lanka Rupee	Sri Lanka
LRD	430	2	Liberian Dollar	Liberia
LSM	426	2	Maloti	Lesotho
LUF	442		Luxembourg Franc	Luxembourg
LYD	434	3	Libyan Dinar	Libyan Arab Jamahiriya
MAD	504	2	Moroccan Dirham	Morocco
MGF	450	2	Malagasy Franc	Madagascar
MLF	466		Mali Franc	Mali
MNT	496	2	Tugrik	Mongolia
MOP	446	2	Pataca	Macau
MRO	478	2	Ouguiya	Mauritania
MTP	470	2	Maltese Pound	Malta
MUR	480	2	Mauritius Rupee	Mauritius
MVR	462	2	Maldiva Rupee	Maldives
MWK	454	2	Kwacha	Malawi
MXP	484	2	Mexican Peso	Mexico
MYR	458	2	Malaysian Ringgit	Malaysia
MZM	508	2	Metical	Mozambique
NGN	566	2	Naira	Nigeria
NIC	558	2	Cordoba	Nicaragua
NLG	528		Netherlands Guilder	Netherlands
NOK	578	2	Norwegian Krone	Norway
NPR	524	2	Nepalese Rupee	Nepal
NZD	554	2	New Zealand Dollar	New Zealand
OMR	512	3	Rial Omani	Oman
PAB	590	2	Balboa	Panama
PES	604	2	Sol	Peru
PGK	598	2	Kina	Papau New Guinea
PHP	608	2	Philippine Peso	Philippines
PKR	586	2	Pakistan Rupee	Pakistan
PLZ	616		Zloty	Poland
PTE	620		Portugese Escudo	Portugal
PYG	600	0	Guarani	Paraguay
QAR	634	2	Qatari Rial	Qatar
ROL	642	0	Leu	Romania
RUB	643	2	Russian Ruble	Russian Federation
RWF	646	2	Rwanda Franc	Rwanda

SAR	682	2	Saudi Riyal	Saudi Arabia
SBD	090	2	Solomon Islands Dollar	Solomon Islands
SCR	690	2	Seychelles Rupee	Seychelles
SDP	736	2	Sudanese Pound	Sudan
SEK	752	2	Swedish Krona	Sweden
SGD	702	2	Singapore Dollar	Singapore
SHP	654	2	St. Helena Pound	St. Helena
SLL	694	2	Leone	Sierra Leone
SOS	706	2	Somali Shilling	Somalia
SRG	740		Suriname Guilder	Suriname
STD	678	2	Dobra	Sao Tome and Principe
SUR	810		Rouble	Union of Soviet Socialist Republics
SVC	222	2	El Salvador Colon	El Salvador
SYP	760	2	Syrian Pound	Syrian Arab Republic
SZL	748	2	Lilangeni	Swaziland
THB	764	2	Baht	Thailand
TND	788	3	Tunisian Dinar	Tunisia
TOP	776	2	Pa'anga	Tonga
TPE	626	2	Timor Escudo	East Timor
TRL	792	0	Turkish Lira	Turkey
TRY	949	2	New Turkish Lira	Turkey
TTD	780	2	Trinidad & Tobago Dollar	Trinidad and Tobago
TWD	901	2	New Taiwan Dollar	Taiwan, Province of China
TZS	834	2	Tanzanian Shilling	Tanzania, United Republic of
UGS	800	0	Uganda Shilling	Uganda
USD	840	2	US Dollar	United States
USN	997		US Dollar (Next day)	United States
USS	998		US Dollar (same day)	United States
UYP	858	2	Uruguayan Peso	Uruguay
VND	704	2	Dong	Viet Nam
VEB	862	2	Bolivar	Venezuela
VUV	548	0	Vatu	Vanuatu
WST	882	2	Tala	Samoa
XAF	950	0	CFA Franc BEAC	Cameroon, Central African Republic, Chad, Congo ,Gabon
XCD	951	2	East Caribbean Dollar	Antigua
XDR	960		Special Drawing Rights	International Monetary Fund
XEU	954		European Currency Unit	Euro. Monetary Cooperation Fund (EMCF)

XOF	952	0	CFA Franc BCEAO	Benin, Ivory coast, Niger, Senegal, Togo, Upper Volta
XPF	953	0	CFP Franc	French Polynesia
YDD	720		Yemeni Dinar	Yemen, Democratic
YER	886	2	Yemeni Rial	Yemen
YUD	890		New Yugoslavian Dinar	Yugoslavia
ZAR	710	2	Rand	South Africa
ZMK	894	2	Kwacha	Zambia
ZRZ	180	2	Zaire	Zaire
ZWD	716	2	Zimbabwe Dollar	Zimbabwe

## 2.11 APPENDIX 11 – IDS REQUIRED PER COUNTRY

Country	Country Code	Type of ID Number Required
Afghanistan	AF	Passport Registry Number
Albania	AL	Passport Registry Number
Algeria	DZ	Passport Registry Number
American Samoa	AS	Passport Registry Number
Andorra	AD	Passport Registry Number
Angola	AO	Passport Registry Number
Anguilla	AI	Passport Registry Number
Antigua and Barbuda	AG	Passport Registry Number
Argentina	AR	Passport Registry Number
Armenia	AM	Passport Registry Number
Aruba	AW	Passport Registry Number
Australia	AU	Passport Registry Number
Austria	AT	Passport Registry Number
Azerbaijan	AZ	Passport Registry Number
Bahamas	BS	Passport Registry Number
Bahrain	BH	Passport Registry Number or Personal Identification Number
Bangladesh	BD	Passport Registry Number
Barbados	BB	Passport Registry Number
Belarus	BY	Passport Registry Number or Personal Identification Number



Belgium	BE	Passport Registry Number
Bermuda	BM	Passport Registry Number
Bolivia	BO	Passport Registry Number
Bosnia and Herzegovina	BA	Passport Registry Number or Personal Identification Number
Botswana	BW	Passport Registry Number
Brazil	BR	Passport Registry Number
Bulgaria	BG	Passport Registry Number or Personal Identification Number
Burkina Faso	BF	Passport Registry Number
Burundi	BI	Passport Registry Number
Cambodia	KH	Passport Registry Number
Cameroon	CM	Passport Registry Number
Canada - (5 out of 12 prov) Manitoba Newfoundland Nova	CA	Driver's License Number
Canada	CA	Passport Registry Number
Cape Verde	CV	Passport Registry Number
Cayman Islands	KY	Passport Registry Number
Chile	CL	Passport Registry Number
China	CN	Passport Registry Number or Personal Identification Number
Christmas Island	CX	Passport Registry Number
Cocos (Keeling) Islands	CC	Passport Registry Number
Colombia	CO	Passport Registry Number
Cook Islands	CK	Passport Registry Number
Costa Rica	CR	Passport Registry Number
Cote d'Ivoire/Ivory Coast	CI	Passport Registry Number
Croatia	HR	Passport Registry Number or Personal Identification Number
Cuba	CU	Passport Registry Number
Cyprus	CY	Passport Registry Number
Czech Republic	CZ	Passport Registry Number or Personal Identification Number
Denmark	DK	Passport Registry Number or Personal Identification Number

Djibouti	DJ	Passport Registry Number
Dominica	DM	Passport Registry Number
Dominican Republic	DO	Passport Registry Number
Ecuador	EC	Passport Registry Number or Personal Identification Number
Egypt	EG	Passport Registry Number
El Salvador	SV	Passport Registry Number
Equatorial Guinea	GQ	Passport Registry Number
Eritrea	ER	Passport Registry Number
Estonia	EE	Passport Registry Number
Ethiopia	ET	Passport Registry Number
Falkland Islands	FK	Passport Registry Number
Faroe Islands	FO	Passport Registry Number
Fiji	FJ	Passport Registry Number
Finland	FI	Passport Registry Number or Personal Identification Number
France	FR	Passport Registry Number or Personal Identification Number
French Guiana	GF	Passport Registry Number
French Polynesia	PF	Passport Registry Number
French Southern Territories	TF	Passport Registry Number
Gambia	GM	Passport Registry Number
Georgia	GE	Passport Registry Number
Germany	DE	Passport Registry Number or Personal Identification Number
Ghana	GH	Passport Registry Number
Gibraltar	GI	Passport Registry Number
Greece	GR	Passport Registry Number
Greenland	GL	Passport Registry Number
Guadeloupe	GP	Passport Registry Number
Guam	GU	Passport Registry Number
Guatemala	GT	Passport Registry Number or Personal Identification Number

Guinea	GN	Passport Registry Number
Guyana	GY	Passport Registry Number
Haiti	HT	Passport Registry Number
Honduras	HN	Passport Registry Number
Hong Kong (China)	HK	Passport Registry Number
Hungary	HU	Passport Registry Number
Iceland	IS	Passport Registry Number or Personal Identification Number
India	IN	Passport Registry Number
Indonesia	ID	Passport Registry Number or Personal Identification Number
Iran	IR	Passport Registry Number
Iraq	IQ	Passport Registry Number
Ireland	IE	Passport Registry Number
Isle of Man	IM	Passport Registry Number
Israel	IL	Passport Registry Number
Italy	IT	Passport Registry Number
Jamaica	JM	Passport Registry Number
Japan	JP	Passport Registry Number
Jordan	JO	Passport Registry Number or Personal Identification Number
Kazakhstan	KZ	Passport Registry Number
Kenya	KE	Passport Registry Number
Kiribati	KI	Passport Registry Number
Korea, South	KR	Passport Registry Number or Personal Identification Number
Kuwait	KW	Passport Registry Number
Kyrgyzstan	KG	Passport Registry Number
Laos	LA	Passport Registry Number
Latvia	LV	Passport Registry Number or Personal Identification Number
Lebanon	LB	Passport Registry Number
Lesotho	LS	Passport Registry Number or Personal Identification Number

Liberia	LR	Passport Registry Number
Libya	LY	Passport Registry Number
Liechtenstein	LI	Passport Registry Number
Lithuania	LT	Passport Registry Number or Personal Identification Number
Luxembourg	LU	Passport Registry Number
Macau (China)	MO	Passport Registry Number
Macedonia	MK	Passport Registry Number or Personal Identification Number
Malawi	MW	Passport Registry Number
Malaysia	MY	Passport Registry Number or Personal Identification Number
Maldives	MV	Passport Registry Number
Mali	ML	Passport Registry Number
Malta	MT	Passport Registry Number or Personal Identification Number
Marshall Islands	MH	Passport Registry Number
Martinique	MQ	Passport Registry Number
Mauritania	MR	Passport Registry Number
Mauritius	MU	Passport Registry Number
Mayotte	YT	Passport Registry Number
Mexico	MX	Passport Registry Number or Registro Federal de Contribuyentes or Credencial de Elector
Micronesia, Federated States of	FM	Passport Registry Number
Moldova	MD	Passport Registry Number
Monaco	MC	Passport Registry Number
Mongolia	MN	Passport Registry Number
Montserrat	MS	Passport Registry Number
Morocco	MA	Passport Registry Number
Mozambique	MZ	Passport Registry Number
Myanmar	MM	Passport Registry Number
Namibia	NA	Passport Registry Number
Nepal	NP	Passport Registry Number

Netherlands	NL	Passport Registry Number
Netherlands Antilles	AN	Passport Registry Number
New Caledonia	NC	Passport Registry Number
New Zealand	NZ	Passport Registry Number
Nicaragua	NI	Passport Registry Number or Personal Identification Number
Niger	NE	Passport Registry Number
Nigeria	NG	Passport Registry Number
Niue	NU	Passport Registry Number
Norfolk Island	NF	Passport Registry Number
Northern Mariana Islands	MP	Passport Registry Number
Norway	NO	Passport Registry Number or Personal Identification Number
Oman	OM	Passport Registry Number
Pakistan	PK	Passport Registry Number or Personal Identification Number
Palau	PW	Passport Registry Number
Panama	PA	Passport Registry Number
Papua New Guinea	PG	Passport Registry Number
Peru	PE	Passport Registry Number
Philippines	PH	Passport Registry Number or Driver's License Number
Pitcairn	PN	Passport Registry Number
Poland	PL	Passport Registry Number or Personal Identification Number
Portugal	PT	Passport Registry Number
Puerto Rico	PR	Passport Registry Number
Qatar	QA	Passport Registry Number
Reunion	RE	Passport Registry Number
Romania	RO	Passport Registry Number or Personal Identification Number
Russian Federation	RU	Passport Registry Number
Saint Kitts and Nevis	KN	Passport Registry Number
Samoa	WS	Passport Registry Number

San Marino	SM	Passport Registry Number
Saudi Arabia	SA	Passport Registry Number
Senegal	SN	Passport Registry Number
Serbia and Montenegro	YU	Passport Registry Number or Personal Identification Number
Seychelles	SC	Passport Registry Number
Sierra Leone	SL	Passport Registry Number
Singapore	SG	Passport Registry Number
Slovakia	SK	Passport Registry Number
Slovenia	SI	Passport Registry Number or Personal Identification Number
Somalia	SO	Passport Registry Number
South Africa	ZA	Passport Registry Number or Personal Identification Number
Spain	ES	Passport Registry Number
Sri Lanka	LK	Passport Registry Number or Personal Identification Number
St. Helena	SH	Passport Registry Number
St. Pierre and Miquelon	PM	Passport Registry Number
Sudan	SD	Passport Registry Number
Suriname	SR	Passport Registry Number
Swaziland	SZ	Passport Registry Number
Sweden	SE	Passport Registry Number or Personal Identification Number
Switzerland	CH	Passport Registry Number
Syria	SY	Passport Registry Number
Taiwan	TW	Passport Registry Number
Tajikistan	TJ	Passport Registry Number
Tanzania	TZ	Passport Registry Number
Thailand	TH	Passport Registry Number
Togo	TG	Passport Registry Number
Tokelau	TK	Passport Registry Number
Trinidad and Tobago	TT	Passport Registry Number

Tunisia	TN	Passport Registry Number
Turkey	TR	Passport Registry Number
Turkmenistan	TM	Passport Registry Number
Turks and Caicos Islands	TC	Passport Registry Number
Uganda	UG	Passport Registry Number
Ukraine	UA	Passport Registry Number
United Arab Emirates	AE	Passport Registry Number
United Kingdom	GB	Passport Registry Number or Driver's License Number
United States	US	Passport Registry Number or Driver's License Number
Uruguay	UY	Passport Registry Number
Uzbekistan	UZ	Passport Registry Number
Venezuela	VE	Passport Registry Number
Vietnam	VN	Passport Registry Number
Virgin Islands	VI	Passport Registry Number
Virgin Islands (British)	VG	Passport Registry Number
Wallis and Futuna Islands	WF	Passport Registry Number
Western Sahara	EH	Passport Registry Number
Yemen	YE	Passport Registry Number
Serbia and Montenegro	YU	Passport Registry Number or Personal Identification Number
Zambia	ZM	Passport Registry Number
Zimbabwe	ZW	Passport Registry Number

## 2.12 APPENDIX 12 – APG CLIENTIDNUMBERS TYPES

ID	ID Type Description
0	None
1	Passport Registry Number
2	Personal Identification Number
3	Identity Card Number

4	Driver's License Number
8	Travel Document
12	Residence Permit
13	Identity Certificate Number
16	Registro Federal de
17	Credencial de Elector

### 2.13 APPENDIX 13 – APG LANGUAGES SUPPORTED

Language Code	Language
ar	Arabic
bg	Bulgarian
cs	Czech
czech	Czech
da	Danish
de	German
el	Greek
en	English
es	Spanish
et	Estonian
fi	Finnish
fr	French
hu	Hungarian
it	Italian
iw	Hebrew
ja	Japanese
ko	Korean
lt	Lithuanian
lv	Latvian
nl	Dutch



no	Norwegian
pl	Polish
pt	Portuguese
pt-BR	Portuguese
pt-PT	Portuguese
ro	Romanian
ru	Russian
sk	Slovakian
sl	Slovenian
sv	Swedish
tr	Turkish
zh	Chinese
zh-Hans	Chinese Simplified
zh-Hant	Chinese Traditional

#### 2.14 APPENDIX 14 – APG PURCHASE SOURCES AND NUMERIC CODES

Numeric Code	Purchase Source
1	WEB
2	PHONE

#### 2.15 APPENDIX 15 – APG REDEMPTIONTYPES AND NUMERIC CODES

Numeric Code	Redemption Type
1	CASH_WITHDRAWAL
2	ACCOUNT_DEPOSIT
3	PRODUCT_SERVICE_PURCHASE
4	ISSUE_VOUCHER
5	VOID_TRANSACTION
6	ACCOUNT_ADD
7	ACCOUNT_SUBTRACT
8	TRANSACTION_ENQUIRY

**2.16 APPENDIX 16 – MONEYBOOKERS PAYMENT METHODS**

<b>Payment option</b>	<b>Code</b>	<b>Availability</b>
All Credit/Debit Cards	ACC	International
Visa	VSA	International
MasterCard	MSC	International
Diners	DIN	International
Visa Delta/Debit	VSD	International
Visa Electron	VSE	International
Maestro	MAE	UK, Austria, Spain
Solo	SLO	United Kingdom
Laser	LSR	Ireland
CartaSi	VSD	Italy
PostePay	VSD	Italy
4B	ACC	Spain
Euro6000	ACC	Spain
Giropay	GIR	Germany
Sofortüberweisung	SFT	Germany
Nordea Solo Sweden	EBT	Sweden
Nordea Solo Finland	SO2	Finland
iDeal	IDL	The Netherlands
Netpay (EPS)	NPY	Austria
Enets	ENT	Singapore
POLi	PLI	Australia
ELV	DID	Germany
All Polish Banks (all banks below)	PWY	Poland
• mBank (mTransfer)	PWY25	Poland
• Placę z Inteligo	PWY26	Poland
• Bank Nordea Poland	PWY32	Poland
• Bank Zachodni WBK	PWY20	Poland
• PKO BP (PKO Inteligo)	PWY6	Poland
• Multibank (Multitransfer)	PWY7	Poland
• Bank BPH	PWY15	Poland
• ING Bank Śląski	PWY5	Poland
• Lukas Bank	PWY14	Poland
• Kredyt Bank	PWY37	Poland
• InvestBank	PWY17	Poland
• PeKaO S.A.	PWY18	Poland
• Citibank handlowy	PWY19	Poland
• BGŻ	PWY21	Poland
• Millenium	PWY22	Poland
• Bank Ochrony Środowiska	PWY28	Poland
• Fortis Bank	PWY33	Poland
• Deutsche Bank PBC S.A.	PWY36	Poland

**2.17 APPENDIX 17 – ENVOY BANKING SERVICES**

<b>Product Option</b>	<b>Consumer Country</b>	<b>Currency</b>
ABAQOOS	Hungary	Must be HUF
BANKLINK	Estonia	Must be EEK
BANKLINKNORDEA	Latvia	Must be either EUR or LVL
BANKLINKSWED	Estonia	Must be EEK
BARCODE SANTANDER	Chile	Must be CLP
Boleto Bancário	Brazil	Must be BRL
CASHU	Jordan	Must be USD
	UAE	
	Bahrain	
	Israel	
	Egypt	
DINEROMAIL	Mexico	Must be either MXN, ARS, or CLP
	Argentina	
	Chile	
EKONTO	Czech Republic	Must be CZK
EPAY	Bulgaria	Must be BGN
EPS	Austria	Must be EUR
EUTELLER	Finland	Must be EUR
EWIREDK	Denmark	Must be DKK
EWIRENO	Norway	Must be NOK
EWIRESE	Sweden	Must be SEK
GLUEPAY	Sweden	NOK, SEK, DKK, EUR, EEK, LVL, LTL (not enforced by Gluepay)
	Finland	
	Estonia	
	Norway	
	Denmark	
	Lithuania	
	Latvia	
IDEAL	Netherlands	Must be EUR
MISTERCASH	Belgium	Must be EUR
MONETA	Russia	Must be either EUR or USD
MULTIBANCO	Portugal	Must be EUR
NEOSURF	Belgium	Must be EUR
	France	
	Italy	
	Spain	

POLI	Australia	Must be AUD
POLINZ	New Zealand	Must be NZD
PRZELEWY24	Poland	Must be PLN
SOFORT	Austria	Must be EUR
	Germany	
SPOROPAY	Slovakia	Must be EUR
TELEINGRESO	Spain	Must be EUR
TODITOCARD	Mexico	Must be MXN
WEBMONEY	Russia	Must be either USD or EUR
	Ukraine	
	Belarus	
	Armenia	
	Azerbaijan	
	Ethiopia	
	Georgia	
	Kazakhstan	
	Lithuania	
	Latvia	
	Moldova	
	Uzbekistan	

## 2.18 APPENDIX 18 – APG INFORMATION SERVICE TYPE

Service Type	Value
COUNTRY_LIST	1
BANK_TRANSFER_DETAILS	2

## 2.19 APPENDIX 19 – ACTION TYPEID AND DESCRIPTIONS

Type ID	Description
1	Cancel
2	Capture
3	Refund
4	Buy
5	Authorise
6	Giropay

7	Sofort
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## 2.20 APPENDIX 20 – ECHECK MANAGED BILLING FREQUENCY PATTERN FIELDS

Field Name	Allowed Values*	Allowed Special Characters*
Day-of-Month	1-31	, - * / ? L W
Month	1-12 or JAN-DEC	, - * /
Day-of-Week	1-7 or SUN-SAT	, - * / ? L #

\* Not case-sensitive

Notes on frequency pattern special characters:

- The comma (,) character is used to specify additional values. For example, **MON,WED,FRI** in the Day-of-Week field means *the days Monday, Wednesday, and Friday*.
- The dash (-) character is used to specify ranges. For example, **10-12** in the Month field means *the months October, November, and December*.
- The asterisk (\*) character is used to specify *all values*. For example, \* in the Month field means *every month*.
- The forward slash (/) character is used to specify increments. For example, **1/3** in the Day-of-Month field means *every three days starting on the first day of the month*.
- The question mark (?) character is allowed for the Day-of-Month and Day-of-Week fields. It is used to specify *no specific value* for the given field. This is useful when you need to specify something in two of the fields but not the third. See *Manage Billing frequency pattern examples* for clarification.
- The capital **L** character is allowed for the Day-of-Month and Day-of-Week fields. This character is short-hand for *last*, but it has a different meaning in each of the two fields.
  - The value **L** in the Day-of-Month field means *the last day of the month* (day 31 for January, day 28 for February on non leap years, and so on).
  - If used in the Day-of-Week field by itself, it simply means 7 or SAT.
  - If used in the Day-of-Week field after another value, it means *the last xxx day of the month* (for example, **6L** means *the last Friday of the month*).

**CAUTION** When using the L option, do not specify lists or ranges of values, as you will get confusing results.

- The capital **W** character is allowed for the Day-of-Month field. This character is used to specify *the weekday (Monday-Friday) nearest the given day*. As an example, if you were to specify **15W** as the value for the Day-of-Month field, the meaning is *the nearest weekday to the 15th of the month*.
  - If the 15th is a Saturday, the billing will occur on Friday the 14th.
  - If the 15th is a Sunday, the billing will occur on Monday the 16th.
  - If the 15th is a Tuesday, then the billing will occur on Tuesday the 15th.
 However, if you specify **1W** as the value for Day-of-Month and the 1st is a Saturday, the billing will occur on Monday the 3rd, as it will not *jump over* the boundary of a month's days.

The W character can only be specified when the Day-of-Month is a single day, not a range or list of days.

- The **L** and **W** characters can also be combined for the Day-of-Month expression to yield **LW**, which translates to *last weekday of the month*.
- The number sign (**#**) character is allowed for the Day-of-Week field. This character is used to specify *the nth xxx day of the month*.  
For example, the value **6#3** means *the third Friday of the month* (day 6 = Friday and #3 = the 3rd one of the month).  
Other examples: **2#1** means *the first Monday of the month*, and **4#5** means *the fifth Wednesday of the month*.

**CAUTION** If you specify **#5** and there are not five occurrences of that day in the given month, no billings will occur that month,

#### Managed Billing frequency pattern examples

Recurrence Pattern Needed	Corresponding CRON Expression*
<b>Weekly</b>	
Every Wednesday in the month of March	? MAR WED or ? 3 WED or ? 3 4
Every Sunday, June through August	? JUN-AUG SUN
Every Monday	? * MON
Every 5 <sup>th</sup> Monday	? */5 MON
<b>Monthly</b>	
First day of each month	1 * ?
First day of every three months starting January	1 1/3 ?
First day of every other month (odd months)	1 1,3,5,7,9,11 ?
First day of every other month (even months)	1 2,4,6,8,10,12 ?
15th day of every month	15 * ?
Last day of every month	L * ?
Last Friday of every month	? * 6L or ? * FRIL
Third Friday of every month	? * 6#3
Nearest weekday to the first of the month	1W * ?
Last weekday of the month	LW * ?
<b>Yearly</b>	
1st of January	1 JAN ?
1st weekday of January	1W JAN ?

Last day of May, every year	L MAY ? or L 5 ?
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\* These are examples only—there are multiple ways to express most patterns.

## 2.21 APPENDIX 21 – ECHECK ACCOUNT TYPE

Type ID	Description
1	CONSUMER_SAVING
2	CONSUMER_CHECK
3	COMMERCIAL_CHECK

## 2.22 APPENDIX 22 – ECHECK ACTION TYPE

Type ID	Description
1	AUTHORISE
2	AUTH_AND_CAPTURE

## 2.23 RECOMMENDED CLIENT MESSAGING

It is recommended that customers be provided with a consistent response to their deposit request.

The response should provide the transaction number or merchant reference number for each request, the status of the transaction e.g. accepted, declined, error and also contact information so that the customer can contact the merchant in case of any questions or concerns.

In the event of an accepted transaction request, the processor's transaction id should be provided for each confirmed request so that the customer can contact the processor in case of any questions or concerns and may look up the transaction via the processor's customer interface.

Status Returned	Comment
AUTHORISED	Your transaction has been processed successfully.
INFORMATION_SUPPLIED	Your transaction has been processed successfully.
REFUSED	Your request could not be completed. Please contact merchant customer service for more information.
ERROR	Your request could not be completed. Please contact merchant customer service for more information.

PENDING	Your request could not entirely be completed. Please check your account later for an updated status. You may also contact merchant customer service for more information.
CANCELLED	Your transaction has been cancelled as per your request. Please contact merchant customer service for more information.
UNKNOWN	Please note that your transaction could not be successfully completed. Please contact our customer support helpdesk.
FRAUD_REJECTED	Your request could not be completed. Please contact merchant customer service for more information