



AlphaPaymentsCloud

AlphaHub API Integration Guide

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CHANGE LOG

Release	Change Description
March 2014	Major revision
April 2014	Additional parameters added including custom product component
June 2014	Additional product support
July 2014	Additional product support, additional provider response component
August 2014	Additional product support, added: Package request component IDDocuments component
October 2014	Additional product support, added: Installment component SocialIdentity component Loyalty component
November 2014	Additional product support, added: PhoneChecks component Additional response fields in other components New response codes 1077,1078
December 2014	New response code 1079
January 2015	New transaction types, VerifyAccount, CancelTransaction Additional product support, added: TaxResult components New response codes 1080, 1081
February 2015	New fields: SoftDescriptor.DescriptorType Transaction.PONumber ShippingAddress.ShipFromZip
April 2015	Update message component added Additional fields added and response codes defined
June 2015	New TransactionType: IPCheck New response fields New response codes
August 2015	New response components LoyaltyResult, PayerDetails New fields MethodResult.SettlementDate, Transaction.CustomerType
October 2015	New transaction type Mandate
November 2015	Introduction of POS Data component
January 2016	Additional request component for Surcharge Additional fields: MandateSignedDate, CAVVAlgorithm, CardCategory
April 2016	Addition of ThreeDSecure as response component Addition of ManageSession transaction type
November 2016	Addition of mPOS Channel Type Additional Loyalty parameters

Website: www.alphapaymentscloud.com Twitter: @AlphaPayments



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INTRODUCTION TO ALPHA PAYMENTS CLOUD

Mission Statement

- Alpha Payments Cloud aims to simplify and connect the entire payments world.
- Creating a dynamic, evolving solution and providing tools for pro-active collaboration amongst all parties
- While disrupting and liberating us from today's static and restrictive payments technology and business models.

About This Document

Alpha Payments Cloud (APC) delivers the payment industry's most current and comprehensive payment platform. The AlphaHub API allows merchants to process and utilize any of the products integrated into our platform.

This document provides an overview of the steps necessary to integrate to the AlphaHub API. This integration guide is specifically tailored to the direct AlphaHub integration. For the APC hosted payment page service a separate integration guide is available.

The AlphaHub Portal is available at the following urls:

Production (US): <https://hub.alphapaymentscloud.com>

Production (SG): <https://hub.sg.alphapaymentscloud.com>

Test: <https://hub.alphapaymentscloud.net>

Sandbox: <https://sb1hub.gpcloud.com>

A separate user guide for the AlphaHub portal is available.

What is an API?

API stands for Application Programming Interface. An API allows one system online to interact with another system in such a way whereby a standard can be created throughout multiple companies. This standard allows developers to integrate a piece of technology into an existing technology product.

What is the AlphaHub API?

The AlphaHub API allows merchants, banks and product providers to interact with the AlphaHub platform products and services.

TECHNICAL INTEGRATION REQUIREMENTS

Data Transmission Security

The AlphaHub platform uses TLS (Transport Layer Security) to ensure the security of payment data transferred to our platform. All online requests submitted from your system should use TLS encryption.

All sensitive payment data is encrypted in the APC platform in line with PCI-DSS requirements.

API Formats

The AlphaHub API is available in XML and JSON formats.

Additionally APC can support the mapping of your existing API to the AlphaHub format and are in the process of developing several connectors for well known platforms. Please refer to your integration contact for further details.

APC currently support OTA (Open Travel Alliance) format for card authorisations.

The AlphaHub API was designed to be easy to use and easy to setup. Various resources including sample code will be made available as part of your integration.

API Submission

All test requests are submitted to the following location:

<https://hub.apcld.net>

All production requests are submitted to the following locations:

US: <https://hub.apcld.com>

SG: <https://hub.sg.apcld.com>

All sandbox requests are submitted to the following location:

<https://sb1api.gpcloud.com/hub>

Any requests submitted without a secure connection will be rejected.

Certification

Before a merchant will be permitted to go live on the AlphaHub platform they must perform a number of certification tests to ensure their API messages are valid. A certification script relevant to the merchants business will be provided by your integration contact.

SUPPORTED INTEGRATIONS

Transaction Types

The AlphaHub platform currently supports the following transaction types which support multiple product and provider integrations.

Transaction Type	Description
FraudScreen	Request a fraud screening
AuthPayment	Authorize a card or validate direct debit/ACH
CancelPayment	Void or reverse an authorization
CapturePayment	Capture/settle an authorization or an online payment
OneStepPayment	Authorize and capture a payment in one step. This has the same effect as a separate AuthPayment and CapturePayment.
RefundPayment	Refund a payment to a customer. Certain payment methods may not support this directly.
CreditPayment	An original credit payment. This effects a credit to the customer that is not associated to an original payment. Only available with certain providers and for certain merchant types
OnlinePayment	Initiate a session for realtime payment methods such as wallets and online bank transfer. Typically this will result in the merchant redirecting the customer to a provider website.
QueryBanks	Query the banks available to support the particular payment method
EnrolCheck	3D Secure card enrollment check This will allow a merchant to check if a payment card is enrolled for 3D Secure and if it is provide the information on where to direct the customer for authentication
ResponseCheck	3D Secure check result of authentication The merchant may pass the result of an authentication e.g. the PaRes to the 3D Secure service which will validate the result
PaymentStatus	Check the status of a payment
Tokenize	Tokenize a payment card
ShippingRates	Request a shipping rate calculation
TrackShipping	Track a shipping package
EmailCheck	Validation of an email address
SocialIDCheck	Validate a social identity
DocumentCheck	Validate a document
DocumentCheckRetrieval	Retrieve the result of document validation check
PhoneCheck	Request phone validation
SalesTaxCalc	Request sales tax calculation
CancelTransaction	Request to cancel a prior transaction
VerifyAccount	Request to verify an account.
IPCheck	Request to check an IP address
Mandate	Actions on a Mandate (Direct Debit)
ManageSession	Request to initiate a session for payment methods that involve browser redirect

The following transaction types are under development and will be available shortly.

Transaction Type	Description
MCPRateRequest	Multi-currency pricing rate request

AddrValidation	Request address validation
IDCheck	Request identity verification check
DisbursePayment	Disburse funds to a customer

Product Support

The AlphaHub supports integrations within the following categories:

- Transactions – Payment related integrations including card processing and alternative payments
- Risk – Fraud & Risk related integrations including fraud screening & 3D Secure
- Commerce – Value added commerce integrations including address verification and sales tax management

Product support and coverage is continually being expanded, please refer to your account manager or login to the AlphaHub Portal for an up-to-date list of supported products and providers.

API REFERENCE

Each event or transaction has a separate transaction type associated with it in the API. At the end of the event the transaction will have a status. The status will depend on whether the event/transaction was successful or not.

The API has a request and response message. The request message is sent from your application to the AlphaHub platform. The response message is returned from the AlphaHub platform to your application.

Each request or response message is made up of a number of components that consist of parameters or fields. These components and parameters may be mandatory, optional or conditional depending on the event/transaction. By default parameters are flexible length however certain parameters have expected fixed lengths for example currency code.

Certain components have custom parameters/fields. The use of custom parameters allows flexibility of definition for example of additional parameters required by a specific provider.

Messages are constructed of the same parameters regardless of whether they are delivered in XML or in JSON. Certain parameters may be nested in components and the component names are provided for reference. For both XML and JSON the parameter name is the tag, for example a currency code would be delivered as <Currency>EUR</Currency> in XML or "Currency": "EUR" in JSON.

Each API request includes a standard <Header> component and in XML each request has a <TransactionRequest> tag.

To distinguish whether the message content is sent as XML or JSON please provide Content-Type as either application/xml or application/json.

Parameter Name	Type	Format	Mandatory	Description
<Header>			M	Component Tag for Message Header
UserID	Alpha		M	The ID for the user making the API request. Assigned by APC. A merchant can have different user ids assigned if they wish to separate permissions for example for refunds to their backend application
BankID	Alpha		O	The ID for the bank sponsoring the merchant
CorporateID	Alpha		O	Corporate or Group ID assigned by APC
MerchantID	Alpha		M	Merchant ID assigned by APC
TransactionType	Alpha		M	The transaction being executed, for example AuthPayment for an Authorization
Version	Alpha		M	Version of the Hub API. Current version is 2
Custom1			O	Custom field
Custom2			O	Custom field
Custom3			O	Custom field
Custom4			O	Custom field
Custom5			O	Custom field

Each <TransactionRequest> has a corresponding <TransactionResponse>

Request Message

Parameter Name	Type	Format	Mandatory	Description
<Transaction>			M	Component Tag for Transaction Details
StoreID	Alpha		O	Store ID assigned by APC (primarily used in card present transactions)
TerminalID	Alpha		O	Terminal ID (primarily used in card present transactions)
MerchantTxnID	Alpha		C	Internal ID assigned by the merchant to the transaction
PaymentID	Alpha		O	The APC ID for the payment
Currency	Alpha	3	C	ISO 4217 Currency Code e.g. USD/GBP/EUR
Amount	Numeric	14,3	C	Amount of the payment. Please see note below on formatting of amount for different currencies
ShippingAmount	Numeric	14,3	O	Amount of shipping/delivery charge
TaxAmount	Numeric	14,3	O	Amount of tax/VAT
TaxRate	Numeric	3,2	O	Rate of tax/VAT (e.g. 01512 for 15.12% or 10000 for 100%)
TransactionTimestamp	Alpha		O	The date and time of the transaction Format DDMMYYYYHHMMSS
ChannelType	Alpha	1-2	C	The channel the transaction was processed through: (Sometimes referred

Parameter Name	Type	Format	Mandatory	Description
				to as ECI/eCommerce Indicator). If a ChannelType is not provided the payment will default to the merchants standard ChannelType 01 – Moto 02 – Recurring 03 - Installment 05 – Authenticated 06 – Attempted Authentication 07 – Standard SSL eCommerce 10 – Recurring by Telephone (eCheck) I – IVR M – mPOS (Card Present, mobile terminal) R – POS Card Present
Method	Alpha	2	C	The payment method used. See Payment Methods
InstantOnly	Alpha	1	O	Y/N – Include only banks that support Instant Transfer
ThirdParties	Alpha	1	O	Y/N – Include details on third party providers
TxnDetails	Alpha		O	The merchant may provide a comment on the transaction
Language	Alpha		O	The language to display payment instructions in/the customers language
RequestCategory	Numeric	2	C	Category of the request - 01 Payment Request 02 Account Registration Request
RefundReason	Alpha		C	The reason for the refund 1 – Product damaged 2 – Customer cancelled 3 – Customer returned 4 – Customer dissatisfied with product 5 – Customer dissatisfied with service
DiscountCode	Alpha			The code of the discount
DiscountSaving	Numeric			The amount of money the discount saved
CancelReason	Alpha			The reason why the order was cancelled Can be one of following: I. Customer II. Fraud III. Inventory IV. Other
Capture	Alpha		O	When used with AuthPayment allows merchant to request capture if the auth is successful
SettlementCurrency	Alpha		O	Where a payment product allows a merchant to specify the currency to settle in when different from transaction currency
RuleSet	Alpha		O	Option to specify a ruleset for certain transaction types
TransactionNumber	Alpha		O	Option to specify a specific transaction number, for example a Check number
Partial	Boolean		O	Specify whether to authorize a partial

Parameter Name	Type	Format	Mandatory	Description
				amount if the entire requested authorization amount exceeds available credit/balance. Valid Values = true or false
PONumber	Alpha		O	Purchase Order Number
RequestorType	Alpha		O	The type of merchant/requestor
TokenizeAction	Alpha		O	Either Add, Retrieve, Delete
CustomerType	Alpha		O	New field to identify the type of end customer: B2C B2B P2P OTH (Other)
MandateAction	Alpha		C	Actions on a mandate object: Add Update Cancel
BillAmount	Numeric		C	Billing amount in DCC transaction
FxRate	Numeric		C	FX rate used in DCC transaction
ClientType	Alpha		O	The type of client the customer is using. Options are W:Web, M:Mobile
DefaultMethod	Alpha		O	If the payment object being Tokenized is the default set to Y
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Mandatory for all transactions

<OriginalInfo>			C	Component Tag for partial authorization
OriginalTxnID	Alpha		C	Merchant defined transaction identifier – used in the authorization transaction to refer to the original auth that has been partially captured.

<CardDetails>			C	Component Tag for Card Details
CardNumber	Numeric		C	Cardnumber
CardHolder	Alpha		M	Cardholder Name
CardExpiryMonth	Numeric	2	C	Card expiry month in numeric format e.g. 07 for July
CardExpiryYear	Numeric	4	C	Card expiry year in YYYY format e.g. 2012
CardCVV	Numeric	3-4	C	Card security code. Conditional field depending on the card type and the channel type
CardType	Alpha		O	The card type if supplied by the customer/merchant. If not supplied this will be identified in the platform and

				associated with the card
BIN	Numeric		O	The credit card bank identification number (first six digits of the card number) This can be provided where a full card number is not available but the merchant wishes to perform fraud checks based on the BIN
IssuingCountry	Alpha		O	Country of issue of the card
Issuer	Alpha		O	Name of the issuing bank
AuthCode	Alpha		O	If the auth was carried out on a different platform it may be supplied at time of capture
CardCategory	Alpha		O	The category of the card. Options are: 1 – Credit 2- Debit
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for fraud screen, mandatory for EnrolCheck (3D Secure), conditional for AuthPayment (when not provided SecureTokenHolder is required). Optional for RefundPayment, CapturePayment

<SecureTokenHolder>			O	Component Tag to exchange APC SecureToken
SecureToken	Alpha		O	APC or Provider Secure Token
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for AuthPayment, CancelPayment, RefundPayment, CapturePayment, CreditPayment, OneStepPayment.

<ThreeDSecure>			C	Component tag for ThreeDSecure secure details
AuthenticationValue	Alpha		O	The authentication value (MasterCard-UCAF, VISA-CAAV) returned by the merchant plugin
XID	Alpha		O	The XID returned by the merchant plugin
ECI	Numeric		O	The ECI flag returned by the merchant plugin
PaRes	Alpha		C	The PAREs returned from the authentication process
Enrolled	Alpha		O	Indicates if the card is enrolled in 3D Secure or not. Values are Y (Yes), N (No),

				U (Unavailable)
CAVVAlgorithm	Numeric		C	The algorithm used for the CAVV by the issuer ACS Possible values: 0 – HMAC 1 – CVV 2 – CVV with ATN 3 – MasterCard SPA
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for AuthPayment, required for ResponseCheck

<Customer>			O	Component tag for customer details
EmailAddress	Alpha		O	Email address for the customer
IPAddress	Alpha		O	IP Address for the customer
TelNo	Numeric		O	Telephone number
CustomerID	Alpha		O	An internal customer id from the merchant
DateOfBirth	Numeric	8	O	Date of Birth in format DDMMYYYY
SocialID	Alpha		O	Option to provide a social id that can be used in fraud screening
SocialIDType	Alpha		O	The type of SocialID being submitted values include: SSN (US Social Security Number)
DrivingLicense	Alpha			Driving licence of customer
Browser	Alpha		O	The browser used for web transactions
UserTimezone	Alpha		O	The timezone of the users browser/device for web transactions
SessionID	Alpha		O	An internal id for the customer session
UserName	Alpha		O	Possible customer username
ExistingCustomer	Alpha		O	merchant can specify if it is a new customer or an existing customer
DaysOnFile	Alpha		O	Allows a merchant to specify the number of days an existing customer is on file
NrofOrders	Alpha		O	The number of orders this customer has placed
CustomerInfo	Alpha		O	A comment/reference on the customer
Sex	Alpha	1	O	Allowed values M/F
DrivingLicenceIssuer	Alpha		O	The country or state province that issued the driving licence
Longitude	Decimal		O	The longitude of customer location
Latitude	Decimal		O	The latitude of customer location
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Recommended for FraudScreen, optional for AuthPayment but recommended if fraud screening is included in the authorization process

<ExtendedCustomerData>			O	Used to pass extended customer information which may be utilised in identity verification
Nationality	Alpha	2	O	The nationality of the customer using ISO A2 country code
MaritalStatus	Alpha		O	Married – M Single – S Divorced – D Widowed – W Other - O Unknown - U Separated – E Living with partner - C
Occupation	Alpha		O	Customers occupation
TimeAtAddress	Numeric		O	Time at current address YYYY e.g. 4 years and 3 months is 0403

<CustomerPhone>			O	Used to pass multiple phone records, component may appear more than once
PhoneType	Alpha		C	The type of phone number being checked. Values are: HOME MOBILE CELL
PhoneNumber	Alpha		C	The phone number being checked

Usage: Conditional for VerifyAccount

<CustomerEmployment>			O	Used to pass employment history, component may appear more than once
Employer	Alpha		C	The name of the employer
PhoneNumber	Alpha		C	Employers phone number

Usage: Conditional for VerifyAccount

<CustomerIncome>			O	Used to pass income information
Amount			C	The income amount
Currency			C	The currency of income
PaymentFrequency			C	The income payment frequency
PayPerPeriodAmount			C	The pay per period

PayPerPeriodCurrency			C	The currency of payment
NextPaymentDate			C	The next payment date
SecondPaymentDate			C	The following payment date

Usage: Conditional for VerifyAccount

<CustomerReference>			O	Used to pass reference information, component may appear more than once
Name	Alpha		C	The name of the reference
PhoneNumber	Alpha		C	The references phone number
PhoneType			C	The type of phone of the reference

Usage: Conditional for VerifyAccount

<BillingAddress>			O	Component tag for customer billing address
CustomerName	Alpha		O	Customer last name (surname) or fullname if separate fields are not supported by merchant
CustomerFirstName	Alpha		O	Customer firstname
CustomerMiddleName	Alpha		O	Customer middlename
Title	Alpha		O	Customers title
Company	Alpha		O	Optional company name
Street1	Alpha		O	1 st line of address (required for AVS)
Street2	Alpha		O	2 nd line of address
City	Alpha		O	City
Zip	Alpha		O	Zip or Postcode (required for AVS)
State	Alpha		O	State or Region
Country	Alpha	2	O	ISO 3166 2A code e.g. IE for Ireland (required for AVS)
StreetUnitNumber	Alpha		O	A flat/apartment/office unit number
StreetNumber	Alpha		O	The street/house/building number
StreetType	Alpha		O	The type of street for example 'Ave'
Current	Alpha		O	Yes or No is this the current address
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Recommended for FraudScreen, optional for AuthPayment but recommended if fraud screening is included in the authorization process. Conditional for AddValidation (either this or ShippingAddress required), required for SalesTaxCalc. Conditional for ShippingRates (either this or ShippingAddress required)

<ShippingAddress>			O	Component tag for customer shipping address
CustomerName	Alpha		O	Customer name

Company	Alpha		O	Optional company name
Street1	Alpha		O	1 st line of address
Street2	Alpha		O	2 nd line of address
City	Alpha		O	City
Zip	Alpha		O	Zip or Postcode
State	Alpha		O	State or Region
Country	Alpha	2	O	ISO 3166 2A code e.g. IE for Ireland
ShippingPhone	Numeric		O	Shipping Phone number
ShippingMethod	Alpha		O	<ul style="list-style-type: none"> • N – Next day • P – Store Pickup • 2 – 2 Day • 3 – 3 Day • I - International
ShippingProvider	Alpha		O	The provider used to ship the package
AddressCode	Alpha		C	Address code held by merchant. Required for SalesTaxCalc
ShipFromZip	Alpha		O	The zip/postal code the order is shipped from
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for FraudScreen, optional for AuthPayment if fraud screening is included in the authorization process. Conditional for AddValidation (either this or BillingAddress required), conditional for ShippingRates (either this or BillingAddress required)

<SoftDescriptor>			O	Component Tag for Soft Descriptor information
MerchantDescriptor	Alpha		O	Merchant descriptor
MerchantLocation	Alpha		O	Merchant location. Please refer to your account manager for valid values. Depending on your business type a URL or customer service phone number may be required
ChargeDescriptor	Alpha		O	Descriptor for the charge
DescriptorType	Alpha		O	Allows the merchant to specify what type of descriptor is provided in MerchantLocation. Values are: URL Phone Address
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for AuthPayment, OneStepPayment, CapturePayment. If not supplied default merchant descriptor will be used.

<BankDetails>			C	Component Tag for Bank Account Details
AccountHolder	Alpha		C	Bank account holder name
BankCode	Alpha		C	Bank code
AccountNumber	Alpha		C	Bank account number
BankCountry	Alpha	2	C	The ISO country code of the bank
BankName	Alpha		C	The name of the bank where the account is held
IntlBankCode	Alpha		C	The SWIFT/BIC bank code
BankAddress	Alpha		O	The address of the bank
AccountInfo	Alpha		O	Information/comment on the bank a/c details
BankAcctType	Alpha		O	Type of Bank Account. Values are: 0- Checking 1- Business 2- Savings 3- Loan
MandateID			C	A Mandate ID (typically used for SEPA DD)
CollectionDate			C	The requested collection date (YYYYMMDD)
MandateSignedDate			C	The date the mandate was signed (YYYYMMDD)
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for AuthPayment for Direct Debit/ACH, optional but recommended for FraudScreen of a Direct Debit/ACH payment. Required for RefundPayment for certain methods, required for OnlinePayment for some methods.

<RedirectInfo>			C	Component Tag for informing provider of where to return customer to for online transactions
SuccessURL	Alpha		M	The URL where the customer will be redirected to at the end of the payment if it was successful
CancelURL	Alpha		M	The URL where the customer will be redirected to at the end of the payment if it was cancelled or failed
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for most OnlinePayment methods

<Wallet>			C	Used to exchange information on eWallet payments
WalletID			M	The id of the wallet e.g. Paypal PayerID
Source	Alpha		O	The origin of the information used in the

				transaction
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for some methods for CapturePayment and RefundPayment

<Brand>				Information on the payment brand the customer has chosen
BankID	Alpha		O	The ID of the bank to be used for the payment
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for Inpay method for OnlinePayment

<Item>				Component tag for product item information
LineItemNr	Numeric		O	Line item number (each item should be identified by a separate line item)
ItemCode	Alpha		O	Item code
ItemSKU	Alpha		O	Item Stock Keeping Unit
ItemDescription	Alpha		O	Item description
ItemQuantity	Numeric		O	Item quantity
ItemAmount	Numeric		O	Item amount
ItemTotal	Numeric		O	Item total
ItemShipNr	Alpha		O	Item shipping number
ItemValidity	Alpha		O	Item validity
ItemName	Alpha		O	Item name
ItemCategory	Alpha		O	Category of item
DestinationAddressCode	Alpha		C	Destination shipping address for the line item
ShippedFromAddressCode	Alpha		C	Code for shipped from address
ItemTaxCode	Alpha		O	Item tax code
UnitOfMeasure	Alpha		O	Unit of measure of the purchased item. For example, each, kit, pair, gallon, and month.
ItemTaxAmount	Numeric		O	The amount of tax on the item
ItemTaxRate	Numeric		O	The tax rate on the item
ItemDiscount	Numeric		O	Amount of any discount on the item
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for FraudScreen

<AirlineData>				Airline Itinerary Data Component
PNR	Alpha			Passenger Name Record
AirlineCode	Alpha			Airline Code (IATA)
AirlineName	Alpha			Airline name
TicketNr				Ticket number
PassengerName	Alpha			Passenger name
PassengerPhone	Numeric			Passenger phone number
PassengerEmail	Alpha			Passenger email address
RestrictedTicket	Numeric			Restricted ticket indicator
TicketIssueDate	Date			Ticket issue date (YYYYMMDD)
NrofPassengers	Numeric			Number of passengers on booking
ReservationCode	Alpha			Reservation code
FrequentFlyer	Alpha	1	O	Y/N – Is the customer a member of the airline frequent flyer programme
DaystoDeparture	Numeric	1-3	O	The number of days between ticket purchase and departure of the first flight
RoundTrip	Alpha	1	O	Y/N – a flag on whether this is a round trip or not. N – one way
PassengerDOB	Date		O	Passenger date of birth (YYYYMMDD)
PayerTravelling	Alpha		O	Y if the payer is travelling
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field
<TicketIssuer>				Additional element related to airline itinerary
AgentCode	Alpha			Ticket agent code
AgentName	Alpha			Ticket agent name
StreetAddress	Alpha			Address of agent
City	Alpha			City of agent
Country	Alpha	2		Country of agent
PostCode	Alpha			Post code of agent
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field
<TripSegment>				Can be multiple segments per itinerary
SegmentID	Numeric			Each segment identified by an id
FareBasisCode	Alpha			Fare basis code
CarrierCode	Alpha			Carrier code
FareClass	Alpha			Fare class
StopOverCode	Alpha			Stop over code
DepartureAirportCode	Alpha	3		Departure airport code
DestinationCode	Alpha	3	O	Destination airport code
FlightNr	Alpha		O	Flight number
DepartureDate	Date		O	Departure date YYYYMMDD
ArrivalDate	Date		O	Arrival date YYYYMMDD
DepartureCity	Alpha		O	The city the flight departed from
DepartureCountry	Alpha	2	O	Departure country code
DestinationCity	Alpha		O	The destination city
DestinationCountry	Alpha	2	O	Destination country code

custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Optional for fraud screen, if an airline recommended/required for CapturePayment

<MCPRate>				
				Component for Multi-Currency Pricing Rate Request
BaseCurr	Alpha	3	C	The merchants base currency, if supplied configured currency pairs are returned
CurrencyPair	Alpha		C	A currency pair can be specified e.g. USD-EUR and that specific rate only is returned
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for MCPRateRequest

<Custom>	Description	001 - CarHire	002 - Hotel	003 - Cruise
Custom1	Product Category	001	002	003
Custom2	Name	Car Company Name	Hotel Name	Cruise Name
Custom3	Ref / Order	PickUp Location		
Custom4	Start Date	PickUp Date	Checkin Date	Cruise Name
Custom5	End Date	Return Date	Checkout Date	Cruise Return
Custom6	TaxAmount	Tax	Tax	Tax
Custom7	Total Amount	Total	Total	Total
Custom8	Start Time	PickUp Time		
Custom9	End Time	Return Time		
Custom10	Address 1		Hotel Address	
Custom11	Phone Number		Hotel Phone	
Custom12	City		Hotel City	
Custom13	Region		Hotel Region	
Custom14	Zip		Hotel Zip	
Custom15	Country		Hotel Country	
Custom16	Additional Data 1			Cruise Port of Call
Custom17	Additional Data 2			Cruise Duration

<Custom>	Description	004 - Activity	005 - Event	006 - Air Ticket Issuer
Custom1	Product Category	004	005	006

Custom2	Name	Activity Supplier	Event ID	Agent Name
Custom3	Ref / Order	Activity Name	Order Number	Agent Code
Custom4	Start Date	Activity Date	Event Date	
Custom5	End Date			
Custom6	TaxAmount	Activity Tax		
Custom7	Total Amount	Activity Total		
Custom8	Start Time	Activity Time	Event Time	
Custom9	End Time			
Custom10	Address 1		Venue Name	<Address1>
Custom11	Phone Number			
Custom12	City		Venue City	<City>
Custom13	Region		Venue Region	
Custom14	Zip		Venue Zip	<Zip>
Custom15	Country	Activity Country	Venue Country	<Country>
Custom16	Additional Data 1		Event Description	
Custom17	Additional Data 2		Event Genre	

The Custom component provides flexibility to define additional data elements for particular product types. Currently the following product categories are defined:

Category	Category Name
001	Car Hire
002	Hotel
003	Cruise
004	Activity
005	Event
006	Airline Ticket Issuer

<Shipping>			C	Used to request information on shipping services
RequestedService			O	The requested shipping service, for all services use the value of 0. For specific services see the values below
Provider	Alpha		O	The shipping provider, available are: UPS USPS FedEx CanadaPost

Residential	Alpha	1	O	Flag to donate whether the package is being delivered to a residential address or not (Y/N)
TotalWeight	Numeric		C	Total weight of the package
WeightUnit	Alpha		C	The unit of weight of the package e.g. LBS/KGS/OZS
TrackingNumber	Alpha		C	The tracking number of the package
TrackingType	Alpha		C	The type of the tracking number
ShipDateStart	Date		O	When tracking can be used to limit the date range for checking a package
ShipDateEnd	Date		O	When tracking can be used to limit the date range for checking a package
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Required for ShippingRates, TrackShipping

<Package>			C	Used to request information on shipping services
Height	Alpha		O	The height of the package
Weight	Alpha		O	The weight of the package
Length	Alpha		O	The length of the package
Description	Alpha		C	A description of the package
PackagingType	Alpha		C	The type of packaging used
Size	Alpha		C	The size of the package
Girth	Alpha		O	The girth of the package
Width	Alpha		C	The width of the package
InsuredValue	Numeric		O	The insured value of the package
SpecialServices	Alpha		O	Special services for the package
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5				

Usage: Conditional for ShippingRates

<IDDocuments>				Used to pass document information that is used for identity check
Type	Alpha			U-Unknown P-Passport D-Driving Licence I-ID Check
SearchType	Alpha			Basic or Full
IssuerLocation				Location where document was issued
DocumentID				ID of document issued
<IDDoc>				
Type	Alpha			Front or Back

Format	Alpha			JPG,PDF or TIFF
Name	Alpha			Name of file
Image				The image file
SearchType	Alpha			Basic or Full

Usage: Required for DocumentCheck

<Installment>				Used to pass information that is used for installment payments
PayLaterMonths	Numeric	2		For deferred payments (Buy Now, Pay Later) the number of months the payment will not be enforced
PayNumberMonths	Numeric			Number of months a payment is spread over or the number of payments of a different InstallmentFrequency
InstallmentType	Alpha			The type of installment plan. The values are: 03 – No interest to cardholder 05 – With interest to cardholder 07 – Buy now, pay later
InstallmentFirstAmount	Numeric			Amount of the first instalment
InstallmentNextAmount	Numeric			Amount of the next instalment
InstallmentInterest	Numeric			Installment interest
InstallmentFrequency	Alpha			The period instalments are applied over e.g. month, week
InterestParty	Alpha			The party that is levying interest on the instalments. Options: M – Merchant I - Issuer

Usage: Supported by certain acquirers in certain markets

<Loyalty>				Used to pass information that is used for loyalty based payments
PayWithPoints	Alpha	1		Y/N indicates if the transaction will use loyalty points
ProgramName	Alpha			Name of a loyalty program
MemberID	Alpha			Loyalty program membership id
AuthenticationToken	Alpha			Authentication token for the member

Usage: Used by certain acquirers for ON-US loyalty transactions

<SocialIdentity>			O	Used to pass information that is used for validation of a social identity
SocialIdentityProvider	Alpha		M	The social identity provider supported. Fb = Facebook
SocialIdentityURL	Alpha		C	The url for the user profile

SocialIdentityToken	Alpha		C	A token to identify the users profile
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Usage: Required for SocialIDCheck

<TaxRequest>			O	Used to pass information that is used for sales tax calculation
DocumentType	Alpha		M	
Override	Alpha		O	Override sales tax calculation Y/N
OverrideReason	Alpha		C	Reason for the override
OverrideType	Alpha		C	None TaxAmount TaxDate Exemption
OverrideTaxDate	Date		C	Overriding tax date
OverrideTaxAmount	Numeric		C	Overriding tax amount

Usage: Conditional for SalesTaxCalc

<POSData>			O	Used to pass information from a POS transaction
Track2Data	AN		O	This field shall be supplied if a magnetic stripe card is swiped through the POS reader or an ICC card is read through an ICC device reader
DeviceData	AN		O	Contains info on the POS device and its capabilities
PIN	AN		O	The encrypted PIN block
PINInfo	AN		O	PIN Encryption control information
ICCDData	AN		O	Used to transport Integrated Circuit Card (ICC) Data
MAC	AN		O	Message Key
BatchID	AN		O	Host batch number to which the transaction belongs
ProcessingDate	AN		O	This is the processing date for the host system that is initiating the request. Format YYMMDD
ReservedData	AN		O	Reserved data, please see specific implementation addendum document for details
ReservedData2	AN		O	Reserved data, please see specific implementation addendum document for details
EntryMode	AN		O	Indicates for Mobile Acceptance the entry mode of the transaction: CM: Contactless Magnetic Stripe CC: Contactless Chip

<Surcharge>			O	Used to pass information on transaction surcharges
Rate	N	6	O	The rate (%) of surcharge, implied decimal place after 2 nd digit e.g. 015000 for 1.5%
Fee	N	14,3	O	The amount of the surcharge fee
SurchargedAmount	N	14,3	O	The amount including surcharge (should be the same as Transaction.Amount)

SAMPLE XML REQUEST MESSAGE

In this sample payment authorisation for £10 an email address and billing address elements have been provided (billing address elements required for AVS)

```
<TransactionRequest>
  <Header>
    <UserID>USER1</UserID>
    <BankID>BANK1</BankID>
    <CorporatelD>CORP1</CorporatelD>
    <MerchantID>MERCH1234</MerchantID>
    <TransactionType>AuthPayment</TransactionType>
    <Version>2</Version>
  </Header>
  <Transaction>
    <MerchantTxnID>ABC12345</MerchantTxnID>
    <Currency>GBP</Currency>
    <Amount>10000</Amount>
    <ChannelType>07</ChannelType>
    <Method>CC</Method>
  </Transaction>
  <CardDetails>
    <CardNumber>4111111111111111</CardNumber>
    <CardHolder>Tom Jones</CardHolder>
    <CardExpiryMonth>07</CardExpiryMonth>
    <CardExpiryYear>2015</CardExpiryYear>
    <CardCVV>123</CardCVV>
  </CardDetails>
  <Customer>
    <EmailAddress>tom@jones.com</EmailAddress>
```

```
</Customer>
<BillingAddress>
  <Street1>10 Downing St</Street1>
  <City>London</City>
  <Zip>SW1A 2AA</Zip>
  <Country>GB</Country>
</BillingAddress>
</TransactionRequest>
```

SAMPLE JSON REQUEST MESSAGE

```
{
  "Header": {
    "UserID": " USER1",
    "BankID": "BANK1",
    "CorporateID": "CORP1",
    "MerchantID": "MERCH1234",
    "TransactionType": "AuthPayment",
    "Version": "2"
  },
  "Transaction": {
    "MerchantTxnID": " ABC12345",
    "Currency": "GBP",
    "Amount": "10000",
    "ChannelType": "07",
    "Method": "CC"
  }
  "CardDetails": {
    "CardNumber": "4111111111111111",
    "CardHolder": "Tom Jones",
    "CardExpiryMonth": "07",
    "CardExpiryYear": "2015",
    "CardCVV": "123",
  },
  "Customer": {
    "EmailAddress": "tom@jones.com",
  },
}
```

```
"BillingAddress": {  
  "Street1": "10 Downing St",  
  "City": "London",  
  "Zip": " SW1A 2AA ",  
  "Country": "GB"  
}  
}
```

Response Message

Parameter Name	Type	Format	Mandatory	Description
<Result>			M	Tag for result component
ResponseCode	Numeric	4	M	The code for the result of the event
ResponseMessage	Alpha		M	The description of the result of the event
ResponseTimestamp	Alpha		M	The date and time of the transaction response
MerchantID	Alpha		C	Merchant ID assigned by APC
MerchantTxnID	Alpha			The merchants transaction id
PaymentID	Alpha		O	The APC ID for the payment
Currency	Alpha		C	The ISO currency code
Amount	Numeric		C	The amount of the transaction, where applicable
Version	Alpha		C	The version of the API
MerchantTimestamp	Alpha		O	The timestamp in merchant required format
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

<ProviderResps>				Component capturing 0:N Provider Resp
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<ProviderResp>	Type	Format	Mandatory	Description
<ProviderResp>				Tag for component capturing provider specific responses
ProviderName	Alpha		C	Name of the provider
ProviderOrder	Numeric		C	The order the provider was called in the process flow, numeric order ascending
ProviderResponse	Alpha		C	The providers response code
ProviderResponseMessage	Alpha		C	Any text description of the response from the provider
ProviderReference	Alpha		C	A reference/id assigned by the provider to the request
ProviderReference2	Alpha		C	An additional reference/id assigned by the provider to the request
ResponseCode	Numeric		C	The APC response code assigned for this provider response
ResponseTimestamp			C	The timestamp of the response from the provider

Usage: Returned if a request was processed by at least one provider

<Country>				Tag for supported countries for certain payment methods
CountryName	Alpha		C	CountryName
CountryCode	Alpha		C	Country ISO Code

Usage: Returned by QueryBanks

<Banks>				Tag for supported banks for certain payment methods
BankName	Alpha			The name of the bank
BankURL	Alpha			The url of the banks online banking
BankID	Alpha			The id of the bank
BankLogo	Alpha			The url where the banks logo is maintained
Currency	Alpha			The currency of the bank account
AccountNr	Alpha			The account number of the target account
LocalBankCode	Alpha			The optional local bank code of the account
IBAN	Alpha			The IBAN of the account
Swift	Alpha			The Swift/BIC code of the bank
DateFormat	Alpha			The format used by the bank for dates
AmountFormat	Alpha			The format used by the bank for monetary amounts
OnlineBankingURL	Alpha		O	The url for the banks online banking
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Returned by QueryBanks

<MethodResult>			O	The tag for the additional response elements for the payment method. In the case of errors in the API message this may not be returned
AuthCode	Alpha		O	The authorization code (if received)
CVVResult	Alpha		O	The result of the CVV check given by the provider
APCCVVResult	Numeric			APC normalised result of the CVV check 0 - No Match (failure) 1 - Match 2 - Not Sent 3 - No Response (unchecked, retry, or service not allowed)
AVSStreetResult	Numeric		O	The result of the AVS Street check given by the provider. Only

				supported in limited markets
AVSZipResult	Alpha		O	The result of the AVS Zip check given by the provider. Where only a single AVS result is provided it will be in this field
APCAVSResult	Numeric		O	APC result of AVS verification: 3 digits: XYZ - X=name Y=address Z=zip 0 - No Match (failure) 1 - Match 2 - Not Sent 3 - No Response (unchecked, retry, or service not allowed) 4 - 5 digit zip match 5 - 9 digit zip match
SecureToken	Alpha		O	If the merchant is using the APCSecure Tokenization service a storage token is returned
Status	Alpha		O	Status of a payment transaction
AmountReceived	Numeric		C	The amount received by the provider
RedirectUrl	Alpha		C	The URL to redirect the customer to for payment
FeeAmount	Numeric		C	A fee the provider may levy for the transaction
ACSUrl	Alpha		C	The Access Control Server url to contact for 3D Secure authentication
PaReq	Alpha		C	Payer Authentication Request to send to the ACS
ThreeDSKey	Alpha		C	Authentication element for the post to ACS
RemainingAmount	Numeric		C	Following partial refunds/cancellations may be returned by provider as the amount remaining
SettlementDate	Date		C	For certain payment methods the date the payment is expected to settle (YYYYMMDD)
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

<PaymentInfo>			O	
PaymentBrand	Alpha		O	Brand of payment for example VISA/Master
PaymentBrandType	Alpha		O	The type of card e.g. Debit/Credit
PaymentBrandCategory	Alpha		O	The category of card e.g. Commercial
PaymentIssuer	Alpha		O	For example the name of a card issuer
PaymentIssuerCity	Alpha		O	The city of the payment issuer

PaymentIssuerCountry	Alpha		O	The country of the payment issuer
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<PaymentInstruction>				
Instructions	Alpha		O	Depending on the payment method may return a list of fields and information on their display in payment form

<FraudResult>				
			O	The tag for the additional response elements for the fraud request. In the case of errors in the API message this may not be returned
RiskCategory	Alpha		C	The category of the request White/Grey/Black
Score	Alpha		C	The score of the fraud request
Status	Alpha		C	Status of the request after fraud screening e.g. Pass
PrepaidCard	Alpha		C	Y if the card is a prepaid or gift card
FreeEmail	Alpha		C	Y if the email domain is a free domain
CountryCurrencyMatch	Alpha		C	Y if the Country and Currency Match
ThirdPartyPurchase	Alpha		C	Y if the ThirdPartyPurchase
ValidPhoneNumber	Alpha		C	Y if the phone number is valid
DeviceID	Alpha		C	An ID for the device if provide supports device identification
DeviceStatus	Alpha		C	Status of device
EmailCountry	Alpha		C	The country of the email domain where supported
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<FraudChecks>				
				If supported by the provider details of the fraud checks executed
CheckName	Alpha		C	The fraud check executed
CheckResult	Alpha		C	The result of the fraud check
CheckScore	Alpha		C	The score of the individual fraud

				check
CheckType	Alpha		C	The type of check executed e.g. Merchant Velocity Check
CheckPeriod	Alpha		C	The period the check was executed for e.g. Daily/Weekly etc
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.
Availability of the component or specific fields will depend on product provider

<GeoChecks>				IP Geo-location information
IPCountry	Alpha		O	The country code of the IP address
IPCountryBIN	Alpha		O	Y/N – Does the IP country match the BIN country
BINCountry	Alpha		O	The country code of the card bin
BINCountryAddr	Alpha		O	Y/N – Does the BIN country match the customers address country
IPCountryAddr	Alpha		O	Y/N – Does the IP country match the customers address country
HighRiskCountry	Alpha		O	Is the IP country considered a high risk country (Yes/No)
IPBillingDistance	Numeric		O	The distance in Km between the IP address and billing address
IPCity	Alpha		O	The city of the IP address
IPRegionCode	Alpha		O	The region code of the IP address
IPRegionName	Alpha		O	The region name
IPPostCode	Alpha		O	The post code of the IP address
IPTimeZone	Alpha		O	The timezone of the IP address
IPUserType	Alpha		O	The type of user of the IP address
IPISP	Alpha		O	The ISP associated to the IP address
IPLatitude	Alpha		O	The latitude of the IP address
IPLongitude	Alpha		O	The longitude of the IP address
IPRiskLevelID	Alpha		O	
IPRiskLevel	Alpha		O	The level of risk on the IP address
IPRiskReason	Alpha		O	The risk reason description
IPReputation	Alpha		O	The reputation of the IP address
NetSpeed	Alpha		O	The connection speed of the IP address
IPCountryPhoneCode	Numeric		O	Country dialling code for the IP address location
IPLocalPhoneCode	Numeric		O	Local dialling code for the IP address location
IPMap	Alpha		O	Map coordinates for IP Address
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<ProxyInfo>				IP Proxy information
AnonymousProxy	Alpha			Yes/No
ProxyScore	Alpha			A value indicating likelihood of an IP address being an open proxy
CorporateProxy	Alpha			Yes/No
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<CustInfo>				Customer fraud information
HighRiskEmail	Alpha		O	Yes if the email is in a database of known high risk emails
AreaCodeCityMatch	Alpha		O	Yes if the phone area code matches the city/postal code provided
HighRiskShippingAddr	Alpha		O	Yes if the address is a known high risk address
CityPostCodeMatch	Alpha		O	Yes if the city matches the postal code
ShipCityPostCodeMatch	Alpha		O	Yes if the shipping city matches the postal code
ShipBillDistance	Alpha		O	Distance between shipping and billing address where supported
PhoneAddrMatch	Alpha		O	
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<PhoneInfo>				Phone fraud information
PhoneProvider	Alpha		O	The provider of the phone service

PhoneCity	Alpha		O	The city of the phone number
PhoneRegion	Alpha		O	The region/state of the phone number
PhoneCountry	Alpha		O	The country of the phone number
PhoneType	Alpha		O	The type of phone, mobile or landline
custom1	Alpha		O	

Usage: May be returned in response to FraudScreen or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<EmailChecks>				Information on the email address
Email	Alpha		O	The email address checked
EmailCreation	Alpha		O	When the email address was created
DomainRegistration	Alpha		O	When the domain was created
FirstVerified	Alpha		O	When the email was first verified
LastVerified	Alpha		O	When the email was last verified
Status	Alpha		O	The status of the email
Country	Alpha			The country the email address is from
FraudRisk	Alpha			The fraud risk associated with the email
EmailOwnerName	Alpha			The owner of the email address
EmailOwnerDOB	Alpha			The date of birth of the email address owner
EmailOwnerGender	Alpha			The sex of the email address owner
EmailOwnerLocation	Alpha			The location of the email owner
EmailOwnerSMFriends	Alpha			The number of social media friends associated with the email
RequestsAgainstEmail	Numer ic			Number of requests against this email address
UniqueRequestsAgainstEmail	Numer ic			Number of different requestors hitting this email
EmailOwnerPhoto				URL of email owners photo
Score	Numer ic			The score associated with the email
ScoreReason	Alpha			The reason description of the score
ScoreReasonID	Alpha			The score reason ID
Advice	Alpha			The advice related to the email address
RiskBand	Alpha			Customizable risk description
RiskBandID	Alpha			Customizable risk level id
EmailExists	Alpha			Whether the email exists or not
DomainExists	Alpha			Whether the domain exists or not
CompanyEmail	Alpha			Company name associated with email
SocialMediaSource	Alpha			Link to social media sources linking this email
DomainName	Alpha			The name of the email domain
DomainCompany	Alpha			The domain company

DomainCountry	Alpha			The country domain is registered in
DomainCategory	Alpha			Domain category
CorporateDomain	Alpha			Yes or No is this a corporate domain
DomainRiskLevel				
DomainInfo	Alpha			Any relevant information on the domain
DomainRiskLevelId	Alpha			Id of the domain risk level
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: May be returned in response to FraudScreen including email validation, EmailCheck or a payment request that includes fraud check.

Availability of the component or specific fields will depend on product provider

<MCPResponse>				Multi-Currency Pricing rate request response
<Rate>	List		C	Multiple rate segments may be provided
CurrencyPair	Alpha		C	A currency pair can be specified e.g. USD-EUR and that specific rate only is returned
FXRate	Numeric		C	The rate for the currency pair
Validity			C	The period the rate is available for
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

Usage: Response to MCPRateRequest

<ShippingService>			O	Information
Type	Alpha		O	Type of shipping service
Description	Alpha		O	Description
TransitDays	Numeric		O	Number of days in transit
BaseCharge	Numeric		O	Base charge on the service
NetCharge	Numeric		O	Net charge
Discount	Numeric		O	Any discount
TotalSurcharge	Numeric		O	Total surcharge on service
DeliveryDate	Date		O	Planned delivery date for the shipping
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

<ShippingStatus>				
NrofPackages	Numeric		O	Number of packages
ShippingDate	Date		O	Shipping date
			O	

<PackageStatus>				
PackageNr	Alpha		O	Package number
PackageRef	Alpha		O	Package reference
SignedBy	Alpha		O	Package signed by
TrackingNr	Alpha		O	Tracking number

<DocumentResults>				
				Results of ID document check
SummaryDecision	Alpha			The summary result 1 – Match -1 - Mismatch
DecisionElement	Alpha			The element that has a decision against it
ElementDecision	Alpha			The decision for this element
DocumentType	Alpha			Type of document
DecisionCode	Alpha			The ID of the decision matrix
DecisionName	Alpha			The name for the decision matrix
Outcome	Alpha			The outcome of the check 1 – Accept 0 – Refer -1 – Reject
OutcomeType	Alpha			The type of outcome: Primary Secondary Default
Reason	Alpha			Decision reason

<DocumentResultsRule>				
ID	Alpha			Rule ID
Name	Alpha			Rule Name
Outcome	Alpha			Outcome of the rule
Type	Alpha			1 – Accept 0 – Refer -1 – Reject
Reason	Alpha			Decision reason associated with the rule

<DocumentResult>				
				Result of a document check
IssuingCountry	Alpha			Issuing country
VisualCheck	Alpha			Indicates whether a full scan was completed 1-Yes /0 –No
LetterCheck	Alpha			1-Pass/0-Fail
LaminateCheck	Alpha			1-Pass/0-Fail
KinegramHolegramCheck	Alpha			1-Pass/0-Fail

DocumentNumberCheck	Alpha			1-Pass/0-Fail
ExpiryDateCheck	Alpha			1-Pass/0-Fail
DateofBirthCheck	Alpha			1-Pass/0-Fail
PersonalNumberCheck	Alpha			1-Pass/0-Fail
ImagePerforationCheck	Alpha			1-Pass/0-Fail
BasicPrintingCheck	Alpha			1-Pass/0-Fail
OVICheck	Alpha			1-Pass/0-Fail
Remarks	Alpha			Remarks on basic scan response
OCRScan	Alpha			Result of the basic scan OCR check 1-Pass/0-Fail
FullScan	Alpha			Result of the full scan. Indicates if document checked by document expert
RejectReason	Alpha			Full scan reject reason
DocumentDone	Alpha			1-Yes/0-No
MRZ	Alpha			Indicates if document is MRZ (Machine Readable) 1-Yes/0-No
FullScanSuitable	Alpha			Indicates if a document is suitable for full scan after basic scan was completed 1-Yes/0-No
SurnameCheck	Alpha			1-Pass/0-Fail
FirstnameCheck	Alpha			1-Pass/0-Fail
IDNrCheck	Alpha			1-Pass/0-Fail
<DocumentRetrievalDetails>				
DocumentType	Alpha			Type of document U – Unknown (recommended in request) P – Passport D – Driving licence I – ID Card
Sex	Alpha			Gender M-Male / F-Female / U-Unknown
DateofBirth	Date			Date of birth YYYY-MM-DD
Nationality	Alpha			Nationality
Country	Alpha			Country
ExpiryDate	Date			Document expiry date YYYY-MM-DD
DocumentNumber	Alpha			Document number
MRZ1				Machine Readable Zone 1
MRZ2				Machine Readable Zone 2
MRZ3				Machine Readable Zone 3

<PhoneChecks>			O	Component Tag for Phone Data
FirstNameScore			O	Level of match of the first name for the phone number submitted
LastNameScore			O	Level of match of the last name for the phone number submitted
AddressScore			O	Level of match of the address for the phone number submitted

CityScore			O	Level of match of the city for the phone number submitted
StateScore			O	Level of match of the state for the phone number submitted
ZipScore			O	Level of match of the Zip for the phone number submitted
DataSource			O	Data source phone records were checked against
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

<TaxResult>			O	Component Tag for Sales Tax Response Data
TotalAmount			O	
TotalDiscount			O	
TotalExemption			O	
TotalTaxableAmount			O	
TotalTax			O	
TaxDate			O	
			O	
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

<TaxResultLines>			O	Component Tag for Sales Tax Response Data
ItemNo			O	
TaxCode			O	
Taxability			O	
TaxableAmount			O	
EffectiveRate			O	
TaxAmount			O	
DiscountAmount			O	
TaxCalculated			O	
ExemptAmount			O	
Boundary				
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

<TaxResultJurisdiction>			O	Component Tag for Sales Tax Jurisdiction Information
Country	Alpha	2	O	Country
Name			O	Jurisdiction Name
Type			O	Type of jurisdiction e.g. 'City'
Rate			O	Tax rate in jurisdiction
Region			O	Region e.g. a state
TaxAmount			O	Tax amount
TaxableAmount			O	Taxable amount
TaxName				Name of tax

custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

<TaxResultAddress>			O	Component Tag for Sales Tax Address Result Information
Street			O	The address street
AddressCode			O	Unique code for the address
City			O	The city
State			O	The state/region
Country	Alpha	2	O	Country
ZipCode			O	The zip/postal code
Latitude			O	The latitude of the address
Longitude			O	The longitude of the address
Region			O	The tax region
JurisdictionCode			O	The jurisdiction code
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field

<AccountUpdater>			O	Component Tag for Account Updater fields
ResponseCode			O	Code specific to account updater
ResponseMessage			O	Response message for account updater change
Method			O	The payment method with updated details: CC – Card DD – Bank Account (DD/ACH)

<AccountUpdated>			O	Component Tag for Account Updated fields (child of AccountUpdater)
BankCode			C	Bank Code (when Method = DD)
AccountNumber			O	Account Number (when Method = DD)
BankAccountType			O	Bank Account Type (when Method = DD)
CardType			O	Card Type (when Method = CC)
CardNumber			O	Card Number (when Method = CC)
CardExpiryMonth			O	Card Expiry Month (when Method = DD)
CardExpiryYear			O	Card Expiry Year (when Method = DD)

<TokenResult>			O	Component Tag for returning tokenized data
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custom1			O	This is the category of the tokenized data 001 - Card
custom2			O	Depends on the category 001 = Card Number
custom3			O	Depends on the category 001 =Card holder name (optional)
custom4			O	Depends on the category 001 =Expiry month
custom5			O	Depends on the category 001 =Expiry year
custom6			O	Custom field

<LoyaltyResult>			O	Component Tag for Loyalty Response
RedeemedMonetaryAmount			O	Value of points redeemed
RedeemedPointsAmount			O	Number of points redeemed
PreviousMonetaryBalance			O	Previous amount balance
PreviousPointsBalance			O	Previous points balance
CurrentMonetaryBalance			O	Current amount balance (Effectively the transaction amount charged to payment instrument after value of points redeemed)
CurrentPointsBalance			O	Current points balance
MemberID				member identification code
MemberName				Member name
RewardCode				code for identifying the rewards
CatalogueCode				rewards catalogue
DeliveryChannelCode				redemption delivery channel
PointsExchangeRate				redemption rate

<PayerDetails>			O	Component to capture details of the person making the payment. May be available for specific payment methods such as Poli
AccountHolder	Alpha		C	Bank account holder name
BankCode	Alpha		C	Bank code
AccountNumber	Alpha		C	Bank account number
BankCountry	Alpha	2	C	The ISO country code of the bank
BankName	Alpha		C	The name of the bank where the account is held
IntlBankCode	Alpha		C	The SWIFT/BIC bank code
BankAddress	Alpha		O	The address of the bank
AccountInfo	Alpha		O	Information/comment on the bank a/c
Custom1			O	Custom Field
Custom2			O	Custom Field

<ThreeDSecure>			O	Component Tag for 3D Secure Response
AuthenticationValue	Alpha		O	The authentication value (MasterCard-UCAF, VISA-CAAV) returned by the merchant plugin
XID	Alpha		O	The XID returned by the merchant plugin
ECI	Numeric		O	The ECI flag returned by the merchant plugin
PaRes	Alpha		C	The PAREs returned from the authentication process
Enrolled	Alpha		O	Indicates if the card is enrolled in 3D Secure or not. Values are Y (Yes), N (No), U (Unavailable)
CAVVAlgorithm	Numeric		C	The algorithm used for the CAVV by the issuer ACS Possible values: 0 – HMAC 1 – CVV 2 – CVV with ATN 3 – MasterCard SPA

<Custom>			O	Component Tag for Custom fields
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field
custom6			O	Custom field
custom7			O	Custom field
custom8			O	Custom field
custom9			O	Custom field
custom10			O	Custom field

SAMPLE XML RESPONSE MESSAGE

Our £10 authorization was approved

```
<TransactionResponse>
  <Result>
    <ResponseCode>1000</ResponseCode>
    <ResponseMessage>Request successful</ResponseMessage>
    <ResponseTimestamp>2014-02-20 17:33:57</ResponseTimestamp>
    <MerchantID>MERCHANT1234</MerchantID>
    <MerchantTxnD>ABC12345</MerchantOrderID>
    <PaymentID>12378901</PaymentID>
    <Currency>GBP</Currency>
    <Amount>10000</Amount>
    <ProviderResponse>201.000</ProviderResponse>
  </Result>
  <MethodResult>
    <AuthCode>1235</AuthCode>
    <CVVResult>2</CVVResult>
    <AVSStreetResult>2</AVSStreetResult>
    <CardType>VISA</Type>
  </MethodResult>
</TransactionResponse>
```

SAMPLE JSON RESPONSE MESSAGE

```
{
  "Result": {
    "ResponseCode": "1000",
    "ResponseMessage": "Request successful",
    "ResponseTimestamp": "2014-02-20 17:33:57",
    "MerchantID": "MERCH1234",
    "MerchantTxnID": "ABC12345",
    "PaymentID": "12378901",
    "Currency": "GBP",
    "Amount": "10000",
    "ProviderResponse": "201.000"
  },
  "MethodResult": {
    "AuthCode": "1235",
    "CVVResult": "2",
    "AVSStreetResult": "2",
    "CardType": "VISA",
  }
}
```

Update Message

The Hub supports postback notification to the merchant of updates for certain types of transactions. For example alternative payment methods that have an offline payment component may provide a notification of payment receipt 2-3 days after the transaction.

Parameter Name	Type	Format	Mandatory	Description
<Update>			M	Tag for Update component
ResponseCode	Numeric	4	M	The code for the update event
ResponseMessage	Alpha		M	The description of the result of the event
ResponseTimestamp	Alpha		M	The date and time of the event update
MerchantID	Alpha		C	Merchant ID assigned by APC
MerchantTxnID				
PaymentID	Alpha		O	The APC ID for the payment
Currency	Alpha	3	C	
Amount	Numeric		C	
ProviderResponse	Alpha		O	The providers response code
ProviderResponseMessage	Alpha		O	Any text description from the provider
ProviderReference	Alpha		O	The providers reference number
ProviderTxnStatus	Alpha		O	The status of the transaction/payment with the provider
ProviderName	Alpha		O	The name of the provider providing the response
NotificationID	Alpha		O	Optional notification ID the provider may provide to individually reference the notification
NotificationType	Alpha		O	The type of notification for example a cancellation, chargeback, payment notification
EventDate	Date		O	The date the event occurred
ProviderNotificationCode	Alpha		O	If there is a code related to the notification for example a chargeback reason code
NotificationDescription	Alpha		O	Description of the notification for example 'Insufficient Funds'
SettlementDate	Date		O	Date a payment will settle to the merchant
custom1			O	Custom field
custom2			O	Custom field
custom3			O	Custom field
custom4			O	Custom field
custom5			O	Custom field

API Notes

HANDLING AMOUNTS

The amount fields are defined as fixed format 14,3 length. This allows for three exponent currencies such as OMR (Omani Rial) to be supported as well as supporting consistent formatting of zero exponent currencies such as JPY (Japanese Yen) as well as two exponent currencies such as USD (US Dollar).

A merchant when submitting an amount should always submit assuming three minor units of the currency as is demonstrated:

Amount	Currency	Submit As
250	JPY	250000
250.99	EUR	250990
250.999	OMR	250999

PAYMENT METHODS

The following methods are supported. Refer to the Alpha Hub Portal for the most upto date list. Please note some of the payment methods are only available for certain countries and/or currencies.

Method	Description	Restrictions
CC	Card payments	
PP	Paypal	
IN	Inpay	
SP	Safetypay	
SB	SofortBanking	
DD	Direct Debit/ACH (eCheck in US)	
IC	Inicis	KR only
PO	Poli	AU/NZ only
AL	Alipay	
CP	CUP (GZ/Gnete)	
EN	eNets	SG only
TR	Trustly	

PAYMENT LIFECYCLE

- A CapturePayment can refer to an existing approved payment by either the merchant reference MerchantTxnID or the APC reference PaymentID.

It is not necessary to reference payment details when settling a pre-approved payment, either a credit card that was authorized or a bank account that was validated. However the payment object details can be supplied again or if the merchant uses the APCSecure service a SecureToken can be supplied.

- A RefundPayment can refer to an existing approved payment by either the merchant reference MerchantTxnID or the APC reference PaymentID returned from the capture. If a partial refund is executed e.g. refunding for an amount less than the capture amount, referencing the PaymentID is required.

Refunds can be for the full amount of the payment or a partial refund.

It is not necessary to reference payment details when refunding a settled payment. However the payment object details can be supplied again or if the merchant uses the APCSecure service a SecureToken can be supplied.

- A CancelPayment will attempt to void the authorization if it has not already been captured, and if void is supported by the payment method/processor.

A CancelPayment can refer to an existing approved payment by either the merchant reference MerchantTxnID or the APC reference PaymentID.

- A CreditPayment does not need to be associated to a previous payment however this transaction type is restricted to certain providers and is only available for specific types of merchants

PRODUCT INFORMATION

This section provides information on some specific products supported within the Alpha Hub.

3D Secure

3D Secure is a common protocol for the authentication schemes developed by VISA (Verified by VISA), MasterCard (MasterCard SecureCode) and JCB (J/Secure). Within a 3D Secure authentication session the customer is directed to their issuing banks site where they are directed to enter their secret password or pin which authenticates them to the issuer. APC supports the transfer of authentication data in authorization and settlement APIs. Additionally a MPI (Merchant Plugin) service is available via the APC Product Hub.

Required TransactionTypes are EnrolCheck which is used to check whether a card is enrolled for 3D Secure and ResponseCheck which is used to evaluate the PAREs returned in the authentication response.

Tokenization

APC provides a tokenization service called APCSecure as part of its' platform. If a merchant uses the APCSecure service when they initially provide a card or bank account number, for example as part of an authorization, APC will provide a unique APCSecure token. This APCSecure token can be used on later events on the payment, for example settling the payment or refunding. For recurring billing merchants it can also be used for subsequent payments.

Additionally APC also offer third party tokenization options.

One transaction type, Tokenize is used to drive interaction with the Tokenization service. The field in Transaction component, TokenizeAction supports the different Tokenization actions.

Add – Create a new token based on the supplied data

Delete – Delete the tokenized data stored

Retrieve – Retrieve or detokenize the data stored for a token

When retrieving the tokenized data the first field of the TokenResult is the category of the tokenized data stored, for example 001 is for card data.

Email Validation

Email is an ubiquitous attribute of any eCommerce transaction but until recently it was not actively considered as an indicator of fraud risk. Sophisticated tools are now available on the market to check

email addresses and use this as an indicator of fraud risk. Email validation may be executed with the EmailCheck transaction type or may be called within another process flow.

RESPONSE CODES

The following are the response codes defined within the APC platform.

ResponseCode	Response Text
1000	Request successful
1001	Request failed, format error
1002	Processing delay, please resend the request
1003	Request failed, technical error
1004	Auth declined, no further detail available
1005	Auth referral
1006	Merchant not configured for this payment method or currency
1007	Duplicate transaction identified
1008	Refund not possible due to insufficient funds
1009	Payment method failed validation
1010	Action failed as order not in correct status
1011	Pick-up card (Lost or stolen)
1012	Expired card
1013	Account does not exist
1014	Institution (Issuer/Bank) does not exist
1015	Transaction not allowed
1016	Amount not allowed
1017	Declined due to insufficient funds
1018	Card not permitted in this region/country
1019	Original transaction not found
1020	Declined due to CVV error
1021	Institution not available
1022	Transaction not allowed, violation
1023	PIN Error
1024	Invalid Date
1025	Request does not match original transaction
1026	Account exceeded activity levels
1027	Reversal did not succeed
1028	Invalid merchant
1029	Invalid email address format
1030	Invalid token
1031	Invalid currency
1032	Invalid country code
1033	Amount above threshold level
1034	Rejected by risk system
1035	Rejected suspicion of fraud
1036	Account holder name mismatch
1037	Restricted card/account
1038	AVS Check Failure
1039	Refund not permitted
1040	Transaction timed out
1041	Amount exceeds authorisation
1042	Transaction still in progress
1043	Invalid CVV format for card type
1044	Invalid amount format
1045	3D Secure Authentication Failed
1046	Account holder name required

ResponseCode	Response Text
1047	Missing required field
1048	Invalid OrderID
1049	Invalid PaymentID
1050	Invalid authentication for request
1051	Invalid Response from Directory Server
1052	Unable to Verify Enrollment
1053	Cardholder Not Participating
1054	No Response From Visa Directory Server
1055	Invalid field format error
1056	Merchant licence expired
1057	Transaction stopped based on fraud scoring result
1058	Transaction element on negative list
1059	PaymentID is required
1060	OrderID-PaymentID Mismatch
1061	IP Address Issue
1062	Account restricted by provider
1063	Fraud transaction under manual review
1064	No routing available for the supplied parameters. Please review routing parameter configuration
1065	Defined provider API is not active. Please review process flow configuration
1066	No Fraud Score provided
1067	Payment confirmed by processor
1068	Unidentified response code received
1069	Invalid 3D Secure authentication indicator
1070	Document ready
1071	Insufficient credit with provider
1072	Search error
1073	No match found for search
1074	Too many matches found for search
1075	Duplicate search error
1076	Provider unable to process request
1077	Transaction not permitted for this bank country
1078	Transaction not permitted for this IP country
1079	Phone identification failed
1080	Card type and number mismatch
1081	Transaction verification warning
1082	Transaction verification declined
1083	Incomplete/insufficient address
1084	Jurisdiction/tax region not found
1085	Street number not correct
1086	Address cannot be validated
1087	Address validation not supported for this country
1088	Postal code does not exist
1089	Cancelled by customer
1090	Transaction disputed by customer
1091	Retry transaction
1092	Invalid Transaction Type
1093	Authentication not completed by customer
1094	Transaction not completed by customer
1095	Invalid Terminal
1096	Chargeback received
1097	Card BIN is not participating
1098	Invalid MCC