



XMLPay Developer's Guide

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Preface

This document defines an XML syntax for payment transaction requests, responses, and receipts in a payment processing network.

Intended Audience

The typical user of XMLPay is an Internet merchant or merchant aggregator who wants to dispatch credit card, corporate purchase card, Automated Clearing House (ACH), or other payment requests to a financial processing network.

Organization of This Document

This document is organized as follows:

- [Chapter 1, “XMLPay Overview,”](#) describes XML and XMLPay, presenting processing models, networking, messaging and related specifications.
- [Chapter 2, “XMLPay Syntax,”](#) presents the syntax for transaction requests, responses, and receipts using a simplified notation.
- [Chapter 3, “XMLPay Elements,”](#) provides tables defining the existing Payflow SDK parameters (name/value pairs) and their XMLPay equivalents.
- [Chapter 4, “XMLPay Transaction Profiles,”](#) lists the transactions supported for each tender type—ACH, Card, Check—along with the data elements used for each of those transactions.
- [Chapter 5, “XMLPay Examples,”](#) gives several XMLPay document samples.
- [Appendix A, “XMLPay Schemas,”](#) provides standard W3C schemas for XMLPay and XMLPay Types.
- [Appendix B, “XMLPay DTD,”](#) presents the Document Type Definition XMLPay schema.
- [Appendix C, “Transaction Results,”](#) lists transaction result codes and response messages as well as Address Verification Service (AVS) result codes.

Where to Go For More Information

This guide is not the complete source of all the information you need to develop Payflow applications. Use the [Payflow Gateway Developer Guide and Reference](#) along with this guide.

It provides detailed descriptions of all the Payflow name-value pair parameters. In addition, it contains testing data, the test and live URLs, and error codes.

How to Contact Customer Service

For problems with transaction processing or connections, contact Customer Service by opening a ticket on the *Contact Technical Support* tab at <http://www.paypal.com/mts>.

Revision History

Revision history for *XMLPay Developer's Guide*.

Date	Description
February 2013	Maintenance release. Updated links to other guides and resources.
December 2009	Added an example of using ExtData to pass values for unsupported NVP tags.
October 2008	Added a card credit request example. Renamed the existing credit request example Card Reference Credit Request. Updated the RESULT values and RESPMSG table.
February 2008	Minor updates for technical accuracy.
December 2007	Updated host addresses in RESULT values and RESPMSG table.
August 2007	Updated RESPMSD text. Updated PayPal logo.
May 2007	Represents a merge of content from two separate XMLPay developer guides. Corrections for technical accuracy.
February 2007	Updated transaction RESULT values and RESPMSG text.
August 2006	Updated URLs to PayPal test and live servers.
May 2006	Reformatted in PayPal templates. Integrated Direct Payment feature.
March 2006	Integrated Express Checkout feature.

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XMLPay Overview

About XML

XML (eXtensible Markup Language) is derived from Standardized General Markup Language (SGML) and HyperText Markup Language (HTML). In a sense, XML is SGML “lite”, but XML manages to maintain SGML’s strength as well as HTML’s simplicity. What’s more, XML can be converted to HTML.

The main advantage of XML is that text can be meaningfully annotated. In XML, markers identify and tag the text. But the markers themselves have no defined meaning; it is the applications that define the markers.

XML allows complex transactions to be structured. Client integration is simplified through the exchange of XML documents. Since XML provides support for digital signatures, documents from unknown sources can be trusted. In addition, XML can easily produce large documents such as transaction logs and reports.

Benefits of XML

The main benefits of XML are that it:

- Allows text annotation
- Presents text, data, and content to applications as a structured document
- Facilitates integration of diverse applications
- In addition to these benefits, XML is easy to:
 - Read (all text)
 - Parse and validate
 - Search for content
 - Produce

Well-formed XML Document

A well-formed XML document conforms to XML syntax and must have:

- An XML processing instruction at the beginning (prolog)
- A single root element
- Matching (case sensitive) start and end tags for all elements
- All XML elements properly nested
- Attribute values in quotes

Example 1

```
<?xml version="1.0"?>
<Card>
  <CardType> MasterCard </CardType>
  <CardNumber>495576040004</CardNumber>
  <ExpDate>200011</ExpDate>
  <CVNum>828</CVNum>
</Card>
```

Example 2

```
<?xml version="1.0"?>
<Items ID="IDTI123">
  <Item Number="1">
    <Description>Electric Toothbrush</Description>
    <Quantity>1</Quantity>
    <UnitPrice>100</UnitPrice>
    <TotalAmt>100</TotalAmt>
  </Item>
  <Item Number="2">
    <Description>ToothPaste</Description>
    <Quantity>20</Quantity>
    <UnitPrice>2</UnitPrice>
    <TotalAmt>40</TotalAmt>
  </Item>
  ...
</Items>
```

Using XMLPay

XMLPay defines an XML syntax for payment transaction requests and responses in a payment processing network.

The typical user of XMLPay is an Internet merchant or merchant aggregator who wants to dispatch credit card, corporate purchase card, Automated Clearing House (ACH), or other payment requests to a financial processing network.

Using the data type definitions specified by XMLPay, a user creates a client payment request and dispatches it—using a mechanism left unspecified by XMLPay—to an associated XMLPay-compliant server component. Responses (also formatted in XML) convey the results of the payment requests to the client.

NOTE: For specific examples of how to submit XML documents using the Website Payments Pro Payflow Edition client service, see the PayPal Manager Download package.

XMLPay Instruments

XMLPay supports payment processing using the following payment instruments:

- Retail credit and debit cards

- Corporate purchase cards: Levels 1, 2, and 3
- Automated Clearing House (ACH)

XMLPay Operations

Typical XMLPay operations include:

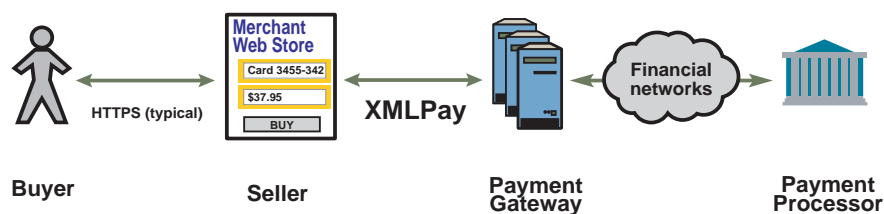
- Funds authorization and capture
- Sales and repeat sales
- Voiding of transactions

XMLPay Processing Models

XMLPay is intended for use in both Business-to-Consumer (B2C) and Business-to-Business (B2B) payment processing applications.

Business-to-Consumer

In a B2C Sale transaction, the Buyer presents a payment instrument (for example, a credit card number) to a Seller to transfer money from the Buyer to the Seller.

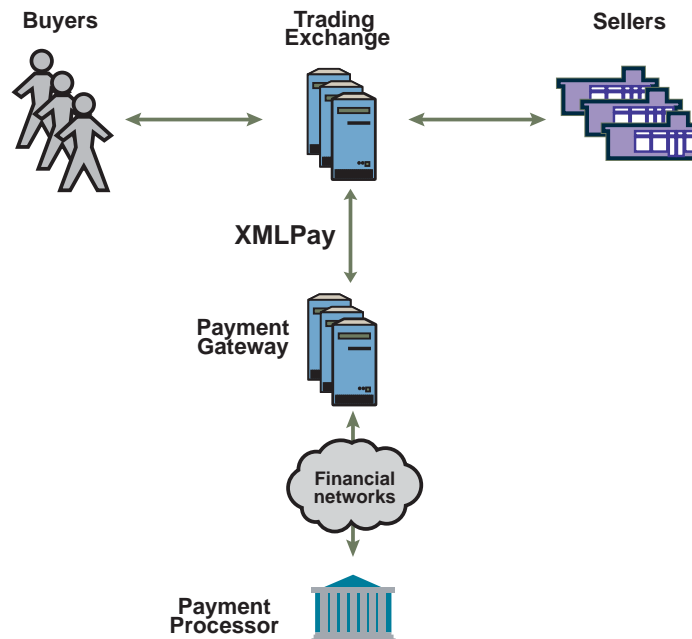


The Seller uses XMLPay to forward the Buyer's payment information to a Payment Processor. The Seller formats an `XMLPayRequest` and submits it either directly to an XMLPay-compliant payment processor or, as pictured, indirectly via an XMLPay-compliant Payment Gateway. Responses have the type `XMLPayResponse`.

The Buyer-to-Seller and Payment Gateway-to-Processor channels are typically left unaffected by use of XMLPay. For example, XMLPay is typically not used in direct communications between the buyer and the seller. Instead, conventional HTML form submission or other Internet communication methods are typically used. Similarly, because Payment Processors often differ considerably in the formats they specify for payment requests, XMLPay server logic is usually localized at the Payment Gateway, leaving the legacy connections between gateways and processors unchanged.

Business-to-Business

When used in support of B2B transactions, the Seller does not typically initiate XMLPay requests. Instead, an aggregator or trading exchange uses XMLPay to communicate business-focused purchasing information (such as level 3 corporate purchase card data) to a payment gateway.



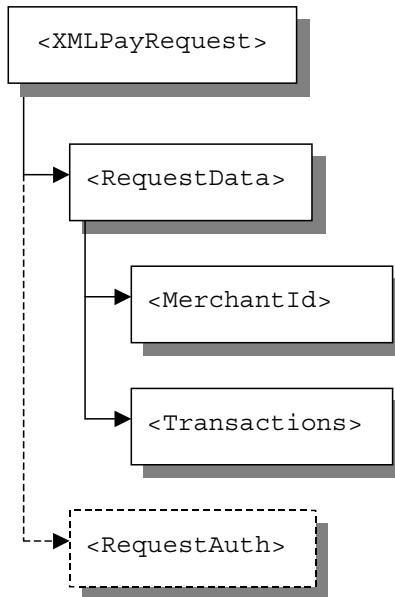
In this way, the Trading Exchange links payment execution to other XML-based communications between Buyers and Sellers such as Advance Shipping Notice delivery, Purchase Order communication, or other B2B communication functions.

XMLPay Messaging

The highest-level XMLPay structures represent payment transaction requests and responses.

XMLPayRequest

Payment transactions are submitted, one or more at a time, as XMLPayRequest documents. The high-level structure of a request looks like this:



Merchant ID identifies the *merchant of record* for the transaction within the target payment processing network. The merchant of record may be different from the submitting party in a delegated processing model.

Transactions is the list of payment transactions to be processed. XMLPay supports up to 32 transactions per XMLPay document submission.

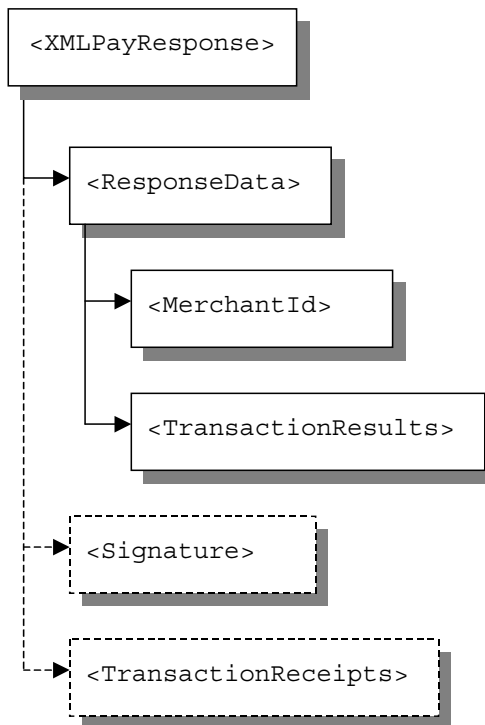
RequestAuth is an optional structure used to authenticate the submitting party, in the absence of transport level authentication.

See [Chapter 2, “XMLPay Syntax,”](#) for a detailed description of request documents.

XMLPayResponse

Each XMLPayRequest submission produces a corresponding XMLPayResponse document containing results for each submitted transaction request. The high-level structure of a response looks like this:

NOTE: Signature and TransactionReceipts are not supported on the Payment server.



See [Chapter 2, "XMLPay Syntax,"](#) for a detailed description of response documents.

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XMLPay Syntax

This chapter presents the syntax for transaction requests and responses using a simplified notation.

- [Appendix A, “XMLPay Schemas,”](#) provides the complete syntax, expressed in W3C XML-schema notation.
- [Appendix B, “XMLPay DTD,”](#) provides a document type definition (DTD) representation of the schema.

Syntax Notation

The following example presents the notation used to describe XMLPay document:

```
<Example>
  (element)
  (optionalElement)?
  (alternativeElement1|alternativeElement2)
  (element)+
  (element)*
</Example>
```

element	Indicates the occurrence of a (possibly complex) XML element (for example, <element>...</element>) defined elsewhere.
?	Indicates an optional element.
 	Separates alternative elements, any one of which is allowed.
+	Indicates that one or more occurrences of an element are allowed.
*	Indicates that zero or more occurrences of an element are allowed.

NOTE: The Payflow SDK SDK download package provides specific examples of XML documents using the Pro client service.

The XMLPayRequest Document (Transactions)

```
<XMLPayRequest Timeout="30" version = "2.0">
  <RequestData>
    (Vendor)
    (Partner)
  <Transactions>
```

```

        (Transaction) +
    </Transactions>
</RequestData>
    (RequestAuth) ?
</XMLPayRequest>

```

Attribute	Description
Vendor	Identifies the merchant of record for the transaction within the target payment processing network. In a delegated processing model, the merchant of record may be different from the submitting party.
Partner	Identifies the submitting party.
Transaction	Defined on page 16 . XMLPay supports up to 32 transactions per XMLPay document submission.
RequestAuth	Defined on page 21 .
Timeout	The value of this attribute is ignored.

Transaction

XMLPay supports up to 32 transactions per XMLPay document submission.

```

<Transaction Id=? CustRef=?>
    (Authorization|Capture|Sale|Credit|Void|
    ForceCapture|RepeatSale|GetStatus|
    VerifyEnrollment|ValidateAuthentication|
    TransactionUpdate|SetExpressCheckout|
    GetExpressCheckout|DoExpressCheckout)
</Transaction>

```

Attribute	Description
Id	<p>Optional attribute that tracks the transaction through the payment-processing network. The submitting merchant generates this transaction identifier, which must be unique among all transactions submitted by that merchant.</p> <p>Id need not be globally unique across merchants, since the payment-processing network interprets it within the context of the merchant associated with the transaction. If an Id attribute is provided in a transaction, it will be included in the matching TransactionResult in the resultant XMLPayResult.</p> <p>Similarly, CustRef is a merchant-generated ID identifying a specific customer of this merchant and associating it with this transaction.</p>

Authorization Transaction

An authorization transaction verifies the availability of funds and reserves them for later capture.


```
<Authorization>
  <PayData>
    (Invoice)
    (Tender)
  </PayData>
  (ExtData) *
</Authorization>
```

Attribute	Description
PayData	Specifies the details of the purchase, within Invoice, as well as the payment Tender to use.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Capture Transaction

A capture transaction transfers the funds secured by a previous authorization transaction, identified by PNRRef, into the merchant's account.

```
<Capture>
  (PNRRef)
  (Invoice)?
  (ExtData) *
</Capture>
```

Attribute	Description
Invoice	An updated Invoice may optionally be provided, specifying any changes in the purchase details from the original invoice in the reference authorization.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Sale Transaction

A sale transaction verifies the availability of funds and captures funds in one step.

```
<Sale>
  <PayData>
    (Invoice)
    (Tender)
  </PayData>
  (ExtData) *
</Sale>
```

Attribute	Description
PayData	Specifies the details of the purchase, within Invoice , as well as the payment Tender to use.

Attribute	Description
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Credit Transaction

A credit transaction reverses a previous sale or capture transaction.

```
<Credit>
  (PNRef | Tender)
  (Invoice) ?
  (ExtData) *
</Credit>
```

Attribute	Description
PNRef Tender	The transaction to be credited is identified by PNRef . A credit may be run without a PNRef by providing the Tender for the account to be credited and Invoice for the amount.
Invoice	In the case of a partial credit, you must provide Invoice and provide details on the items being returned.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Void Transaction

A void transaction cancels a pending sale, capture, or credit.

```
<Void>
  (PNRef)
  (ExtData) *
</Void>
```

Attribute	Description
PNRef	The transaction to be cancelled is identified by PNRef . If the referenced transaction has already been processed, the void fails.

SetExpressCheckout Transaction

SetExpressCheckout indicates to the server that you are using Express Checkout to obtain payment from your customer.

```
<SetExpressCheckout>
  (Authorization | Sale)
  (ExtData) *
```

```
</SetExpressCheckout>
```

Attribute	Description
Authorization	The Express Checkout transaction: an authorization for payment or a sale.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

GetExpressCheckout Transaction

GetExpressCheckout returns information about the customer using Express Checkout, including the name and address on file at PayPal.

```
<SetExpressCheckout>
  (Authorization|Sale)
  (ExtData) *
</SetExpressCheckout>
```

Attribute	Description
Authorization	The Express Checkout transaction: an authorization for payment or a sale.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

DoExpressCheckout Transaction

DoExpressCheckout obtains payment through Express Checkout for a Sale transaction or requests an Authorization for a later capture of payment.

```
<DoExpressCheckout>
  (Authorization|Sale)
  (ExtData) *
</DoExpressCheckout>
```

Attribute	Description
Authorization	The Express Checkout transaction to be carried out: an authorization for payment or a sale.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

ForceCapture Transaction

A ForceCapture transaction captures funds reserved through an out-of-band authorization (for example, a voice authorization received over the phone).

```
<ForceCapture>
  <PayData>
    (Invoice)
```

```

        (Tender)
    </PayData>
    (AuthCode)
    (ExtData) *
</ForceCapture>

```

Attribute	Description
AuthCode	Authorization code received out-of-band.
PayData	Specifies the details of the purchase, within Invoice, as well as the payment Tender to use.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

GetStatus Transaction

A GetStatus transaction queries the status of a previous transaction.

```

<GetStatus>
    (PNRef)
    (ExtData) *
</GetStatus>

```

Attribute	Description
PNRef	The transaction to query is identified by PNRef .
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

VerifyEnrollment Transaction

For the Buyer Authentication Service, this transaction is used to determine whether the card holder is enrolled in the 3D-Secure program.

Refer to [Payflow Fraud Protection Services User's Guide](#) on the sequence of steps involved in performing a Buyer Authentication transaction. This transaction is submitted only to the Buyer Authentication server and not to the core OLTP server.

```

<VerifyEnrollment>
    <PayData>
        (Invoice)
        (Tender)
    </PayData>
    (ExtData) *
</VerifyEnrollment>

```

Attribute	Description
PayData	Specifies the details of the credit card used in the purchase.

Attribute	Description
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

ValidateAuthentication Transaction

For the Buyer Authentication Service, this transaction validates the signature on the PAREs data returned by the issuing bank and parses the authentication information. Refer to [Payflow Fraud Protection Services User's Guide](#) on the sequence of steps involved in performing a Buyer Authentication transaction.

```
<ValidateAuthentication>
  <PAREs>
    (ExtData) *
</ValidateAuthentication>
```

Attribute	Description
PAREs	The authentication data returned by Issuer's ACS.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

RequestAuth

The RequestAuth element provides authentication of the requestor through either a username and password, using UserPass, or a digital signature, using Signature.

```
<RequestAuth>
  (UserPass | Signature)
</RequestAuth>
```

In the case of a digital signature, the W3C XML Signature syntax is used and the signature is executed over the RequestData.

UserPass

```
<UserPass>
  (User)
  (UserDomain) ?
  (Password)
</UserPass>
```

Attribute	Description
User	String identifier assigned to a user.
UserDomain	Names a partner or a vendor under whose auspice a transaction is being submitted.
Password	User's password (string).

The XMLPayRequest Document (Recurring Profiles)

A `RecurringProfile` transaction defines a scheduled payment that enables you to automatically bill your customers at regular intervals.

```
<XMLPayRequest Timeout="30" version = "2.0">
  <RequestData>
    (Vendor)
    (Partner)
    <RecurringProfiles>
      (RecurringProfile)+
    </RecurringProfiles>
  </RequestData>
  (RequestAuth)?
</XMLPayRequest>
```

Attribute	Description
Vendor	Identifies the merchant of record for the transaction within the target payment processing network. In a delegated processing model, the merchant of record may be different from the submitting party.
Partner	Identifies the submitting party.
RecurringProfile	Defined on page 22 .
RequestAuth	Defined on page 21 .
Timeout	The value of this attribute is ignored.

RecurringProfile

```
<Profile Id=? CustRef=?>
  (Add|Modify|Cancel|Reactivate|Payment|Inquiry)
</Profile>
```

Attribute	Description
Id	<p>Optional attribute that tracks the transaction through the payment-processing network. The submitting merchant generates this transaction identifier, which should be unique among all transactions submitted by that merchant.</p> <p>Id need not be globally unique across merchants, since the payment-processing network interprets it within the context of the merchant associated with the transaction. If an Id attribute is provided in a transaction, it will be included in the matching TransactionResult in the resultant XMLPayResult.</p> <p>Similarly, CustRef is a merchant-generated ID identifying a specific customer of this merchant and associating it with this transaction.</p>

Add Recurring Profile

Add a new recurring profile either by sending all data required to define the profile or by converting an existing transaction into a profile.

```
<Add>
  (RPData)
  (Tender)
</Add>
```

Attribute	Description
RPData	Describes recurring profile details. Defined on page 36 .
Tender	Specifies type of payment

Modify Recurring Profile

Modify any profile value by sending any subset of the profile parameters, including an Optional Transaction.

```
<Modify>
  (RPData)
  (Tender)
  (ProfileID)
</Modify>
```

Attribute	Description
RPData	Describes recurring profile details. Defined on page 36 .
Tender	Specifies type of payment
ProfileID	Profile ID of the profile that you want to modify.

Cancel Recurring Profile

Cancel (deactivate) a recurring profile.

```
<Cancel>
  (ProfileID)
</Cancel>
```

Attribute	Description
ProfileID	Profile ID of the profile that you want to cancel.

Reactivate Recurring Profile

Reactivate a profile with an inactive status. Profiles can be deactivated for the following reasons: the term has completed, the profile reached maximum allowable payment failures, or the profile was canceled.

```

<Reactivate>
  (RPData)
  (Tender)
  (ProfileID)
</Reactivate>

```

Attribute	Description
RPData	Describes recurring profile details. Defined on page 36 .
Tender	Specifies type of payment
ProfileID	Profile ID of the profile that you want to reactivate.

Payment Recurring Profile

The Payment action performs a real-time retry on a previously failed transaction.

```

<Payment>
  (RPData)
  (Tender)
  (ProfileID)
</Payment>

```

Attribute	Description
RPData	Describes recurring profile details. Defined on page 36 .
Tender	Specifies type of payment
ProfileID	Profile ID of the profile you want to retrying payment for.

Inquiry Recurring Profile

Inquire about the status of a profile.

```

<Inquiry>
  (ProfileID)
</Inquiry>

```

Attribute	Description
ProfileID	Profile ID of the profile you want to review.

Core Structures

PayData

```
<PayData>
  (Invoice)
  (Tender)
</PayData>
```

Attribute	Description
Invoice	Describes the details of a purchase. Defined on page 25 .
Tender	Describes the payment instrument. Defined on page 32 .

PayDataAuth

The PayDataAuth element provides authentication of the payer for an associated PayData, using either a PKCS-7 format or a W3C XML Signature format digital signature.

```
<PayDataAuth>
  (PKCS7Signature | Signature)
</PayDataAuth>
```

Invoice

```
<Invoice>
  (CustIP) *
  (MerchantDescription) *
  (MerchantServiceNum) *
  (Recurring) *
  (InvNum) ?
  (OrigInvNum) *
  (Date) ?
  (OrderDateTime) *
  <BillFrom>
    (Name) ?
    (Address) ?
    (EMail) ?
    (Phone) ?
    (Fax) ?
    (URL) ?
  </BillFrom>
  <BillTo>
    (CustomerId) *
    (Name) ?
    (Address) ?
```

```

        (EMail)?
        (Phone)?
        (Phone2)?
        (Fax)?
        (CustCode)?
        (PONum)?
        (TaxExempt)?
        (PhoneType)?
    </BillTo>
    <ShipCarrier/>?
    <ShipMethod/>?
    <ShipFrom>
        (Name)?
        (Address)?
        (EMail)?
        (Phone)?
        (Fax)?
        (ShipFromEU)?
    </ShipFrom>
    <ShipTo>
        (Name)?
        (Address)?
        (EMail)?
        (Phone)?
        (Phone2)
        (Fax)?
        (ShipToEU)?
    </ShipTo>
    (Description) *
    (Items) *
    (DiscountAmt)?
    (ShippingAmt)?
    (DutyAmt)?
    (TaxAmt)?
    (NationalTaxIncl)?
    (TotalAmt)?
    (FreightAmt)?
    (HandlingAmt)?
    (ItemAmt)?
    (Comment)?
    (Level3Invoice)
    (Memo)
    (Custom)
    (OrderDesc)
    (ExtData) *
    (MerchantInfo) *
    (AdditionalAmounts) *
    (SKU) *
    (CustomerHostName) *
    (CustomerBrowser) *
</Invoice>

```

Attribute	Description
CustIP	Customer IP address (filter transactions).
MerchantDescriptor	Merchant descriptor. For example, ABCCMPY*FALLCATALOG
MerchantServiceNum	Merchant telephone number. For example, 603-555-1212
Recurring	Identifies the transaction as recurring. This value does not activate the Recurring Billing Service. If the RECURRING parameter was set to Y for the original transaction, then the setting is ignored when forming Credit, Void, and Force transactions. If you subscribe to the Fraud Protection Services: To avoid charging you to filter recurring transactions that you know are reliable, the fraud filters do not screen recurring transactions. To screen a prospective recurring customer, submit the transaction data using PayPal Manager's Transaction Terminal page. The filters screen the transaction in the normal manner. If the transaction triggers a filter, then you can follow the normal process to review the filter results. Format: Y or N
InvNum	Invoice number.
OrigInvNum	
Date	Invoice date: YYYYMMDD, ISO 8601.
OrderDateTime	
BillFrom Name, Address, EMail, Phone, Fax, and URL	Information about the biller.
BillTo CustomerId, Name, Address, EMail, Phone, Phone2, PhoneType, and Fax	Information about the buyer.
BillTo PONum	Buyer's purchase order number.
BillTo TaxExempt	Indicates that the buyer is a tax exempt entity.
ShipCarrier	Shipping carrier.
ShipMethod	Shipping method.
ShipFrom and ShipTo	Information about the shipping addresses, if different from BillFrom and BillTo respectively.
Description	Summary description of the purchase. This field, in the case of an Amex purchase card, can contain up to four separate descriptions of 40 characters each.
Items	Full line-item breakdown of the purchase. Defined on page 28 .

Attribute	Description
DiscountAmt	Discount to be applied to the item subtotal.
ShippingAmt	Total of shipping and handling charges. For separate shipping and handling amounts, use FreightAmt and HandlingAmt , respectively.
DutyAmt	Duty fees (if applicable)
TaxAmt	Total of all taxes.
NationalTaxIncl	Boolean which when true, indicates that the national tax is included in the TaxAmt .
TotalAmt	Grand total (item subtotal - DiscountAmt + ShippingAmt (or HandlingAmt + FreightAmt) + DutyAmt + TaxAmt).
FreightAmt	Shipping charges without handling included.
HandlingAmt	Handling charges without shipping included.
ItemAmt	Sum of cost of all items in this order.
Comment	Free-form comment about the purchase.
Level3Invoice	See Table 3.3, “Level 3 (commercial) credit card transaction parameters” on page 52.
Memo	Custom memo about the credit.
Custom	Free-form field for your own use, such as a tracking number or other value you want PayPal to return in the GetExpressCheckout response.
OrderDesc	Description of items the customer is purchasing.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).
MerchantInfo	Merchant name and location defined on page 30 .
AdditionalAmounts	Detail of a charge for additional breakdown of the amount, defined in “AdditionalAmounts” on page 31.
SKU	Merchant product SKU.
CustomerHostName	Name of the server that the account holder is connected to.
CustomerBrowser	Account holder’s HTTP browser type

Items

Items is a list of line item detail records. Item is defined below.

```
<Items>
  (Item)+
</Items>
```

Item

```
<Item Number=>  
  (SKU)?  
  (UPC)?  
  (Description)?  
  (Quantity)?  
  (UnitOfMeasurement)?  
  (UnitPrice)?  
  (DiscountAmt)?  
  (TaxAmt)?  
  (ShippingAmt)?  
  (FreightAmt)?  
  (HandlingAmt)?  
  (TotalAmt)?  
  <PickUp>  
    (Address)?  
    (Time)?  
    (Date)?  
    (RecordNumber)?  
  </PickUp>  
  <Delivery>  
    (Date)?  
    (Time)?  
  </Delivery>  
  (CostCenterNumber)?  
  (TrackingNumber)?  
  (CatalogNumber)?  
  (UNSPSCCode)?  
  (ExtData) *  
</Item>
```

Attribute	Description
Number	Line number for the item in the invoice.
SKU	Merchant's product code for the item (stock keeping unit).
UPC	Item's universal product code.
Description	Item's description.
Quantity	Number of units of this item. UnitOfMeasurement provides the units for Quantity (ISO 31).
UnitPrice	Cost of each unit.
DiscountAmt	Discount to be applied to this line item.
TaxAmt	Total of all taxes for this line item.

Attribute	Description
ShippingAmt	Total of shipping and handling charges. For separate shipping and handling amounts, use FreightAmt and HandlingAmt , respectively.
FreightAmt	Shipping charges without handling included.
HandlingAmt	Handling charges without shipping included.
TotalAmt	Total amount including tax and discount for this line item: (Quantity * UnitPrice) + TaxAmt - DiscountAmt .
PickUp Address, Time, Date, and RecordNumber	Shipment pickup information
Delivery Date and Time	Expected delivery date and time.
CostCenterNumber	Purchaser's department number to which the item will be billed.
TrackingNumber	Shipper's tracking code
CatalogNumber	Merchant's product code (SKU may also be used for the same purpose).
UNSPSCCode	Universal Standard Products and Services Classification. Global marketplace classification system developed and managed by the Electronic Commerce Code Management Association (ECCMA).
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

MerchantInfo

```

<MerchantInfo>
  (MerchantName)?
  (MerchantStreet)?
  (MerchantCity)?
  (MerchantState)?
  (MerchantCountryCode)?
  (MerchantZip)?
</MerchantInfo>

```

Attribute	Description
MerchantName	Merchant's name.
MerchantStreet	Merchant's street address, including number.
MerchantCity	Merchant's city name.
MerchantState	Merchant's state or province. For US addresses, two character state codes should be used.

Attribute	Description
MerchantCountryCode	Merchant's country code (ISO 3166). Default is US .
MerchantZip	Merchant's postal code.

AdditionalAmounts

```
<AdditionalAmounts>
  (Amount1)?
  (Amount2)?
  (Amount3)?
  (Amount4)?
  (Amount5)?
</AdditionalAmounts>
```

Attribute	Description
Amount1	
Amount2	
Amount3	
Amount4	
Amount5	

Address

```
<Address>
  (Street)?
  (City)?
  (State)?
  (Zip)?
  (Country)?
</Address>
```

Attribute	Description
Street	Street address, including number.
City	City name.
State	State or province. For US addresses, two character state codes should be used.
Zip	Postal code.
Country	Country code (ISO 3166). Default is US .

Tender

```
<Tender>
  (ACH | Card | Check | Debit | PayPal)
</Tender>
```

ACH

ACH (Automated Clearing House) tender detail.

```
<ACH>
  (AcctType)
  (AcctNum)
  (ABA)
  (Prenote) ?
  (AuthType)
  (CheckNum)
  (TermCity)
  (TermState)
  (DL)
  (SS)
  (DOB)
  (DLState)
  (BankName)
  (SellerMsg)
  (BusName)
  (ExtData) *
</ACH>
```

Attribute	Description
AcctType	Type of the bank account: checking or savings.
AcctNum	Account number.
ABA	Bank routing number.
AuthType	Method of authorization.
Prenote	Boolean. If true , then the purpose of this transaction is not to move money, but to establish authorization for future transactions to be submitted on a recurring basis.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Card

Retail Credit/Debit and Corporate Purchase Card tender detail.

```
<Card>
  (CardType)
  (CardNum)
  (ExpDate)
```



```

    (CVNum) ?
    (MagData) ?
    (NameOnCard) ?
    (ExtData) *
</Card>

```

Attribute	Description
CardType	Optional. Identifies the type of card for the merchant's records. Card types are: Visa MasterCard Amex JCB Discover DinersClub The server does not use this value, but rather uses the card number to determine the card type.
CardNum	Account number.
ExpDate	Card expiration date: YYYYMM or ISO 8601.
CVNum	Card verification number (typically printed on the back of the card, but not embossed on the front).
MagData	Data located on the magnetic strip of a credit card.
NameOnCard	Card holder's name as printed on the card.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Check

Check tender detail.

```

<Check>
  (CheckType)
  (CheckNum)
  (MICR)
  (DL) ?
  (SS) ?
  (DOB) ?
  (ExtData) *
</Check>

```

Attribute	Description
CheckType	Indicates the type of the check: corporate, personal, or government.
CheckNum	Account holder's next unused check number.

Attribute	Description
MICR	Magnetic Ink Check Reader (MICR) is the entire line of numbers at the bottom of the check. It includes the transit number, account number, and check number.
DL	Account holder's driver's license number. XxNnnnnnnn format, where Xx is the state code; Nnnnnnnn is the number
SS	Account holder's social security number.
DOB	Account holder's date of birth YYYYMMDD, ISO 8601
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

PayPal

PayPal tender detail.

```
<PayPal>
  (EMail) *
  (PayerID) *
  (Token) *
  (ReturnURL) *
  (CancelURL) *
  (NotifyURL) *
  (ReqConfirmShipping) *
  (NoShipping) *
  (AddressOverride) *
  (LocaleCode) *
  (PageStyle) *
  (HeaderImage) *
  (HeaderBorderColor) *
  (HeaderBackColor) *
  (PayflowColor) *
  (ButtonSource) *
  (ExtData) *
</PayPal>
```

Attribute	Description
EMail	Email address of customer as entered during checkout. PayPal uses this value to pre-fill the PayPal membership signup portion of the PayPal login page.
PayerId	Unique encrypted PayPal customer account identification number
Token	A string value returned by Set Express Checkout response.

Attribute	Description
ReturnURL	URL to which the customer's browser is returned after approving use of PayPal. Set RETURNURL to your order review page or the page on which the customer clicked the "Edit Shipping" button or hyperlink.
NotifyURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction.
ReqConfirmShipping	Is 1 or 0. The value 1 indicates that you require that the customer's shipping address on file with PayPal be a confirmed address. Setting this element overrides the setting you have specified in your Merchant Account Profile.
NoShipping	Is 1 or 0. The value 1 indicates that on the PayPal pages, no shipping address fields should be displayed whatsoever.
AddressOverride	Is 1 or 0. The value 1 indicates that the PayPal pages should display the shipping address set by you in the shipping address (SHIPTO* parameters) passed to this Set Express Checkout request, not the shipping address on file with PayPal for this customer. Displaying the PayPal street address on file does not allow the customer to edit that address.
LocaleCode	Locale of pages displayed by PayPal during Express Checkout.
PageStyle	Sets the Custom Payment Page Style for payment pages associated with this button/link. PageStyle corresponds to the HTML variable page_style for customizing payment pages. The value is the same as the Page Style Name you chose when adding or editing the page style from the Profile subtab of the My Account tab of your PayPal account.
HeaderImage	A URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high. PayPal recommends that you provide an image that is stored on a secure (https) server.
HeaderBorderColor	Sets the border color around the header of the payment page. The border is a 2-pixel perimeter around the header space, which is 750 pixels wide by 90 pixels high.
HeaderBackColor	Sets the background color for the header of the payment page.
PayflowColor	Sets the background color for the payment page.
ButtonSource	Identification code for use by third-party applications to identify transactions.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

RPData

Recurring Profile payment and scheduling details.

```

<RPData>
  (Name) ?
  (TotalAmt) ?
  (Start) ?
  (Term) ?
  (PayPeriod) ?
  (MaxFailPayments) ?
  (RetryNumDays) ?
  (EMail) ?
  (CompanyName) ?
  (Comment) ?
  (OptionalTrans) ?
  (OptionalTransAmt) ?
  <BillTo>
    (Name) ?
    (Address) ?
    (Phone) ?
    (Fax) ?
  </BillTo>
  <ShipTo>
    (Name) ?
    (Address) ?
    (Phone) ?
    (Fax) ?
  </ShipTo>
  (OrigProfileID) ?
  (PaymentNum) ?
  (ExtData) *
</RPData>

```

Attribute	Description
Name	Account holder's name.
TotalAmt	Dollar amount (US dollars) to be billed.
Start	Beginning (or restarting) date for the recurring billing cycle used to calculate when payments should be made.
Term	Number of payments to be made over the life of the agreement.
PayPeriod	Specifies how often the payment occurs.
MaxFailPayments	The number of payment periods (specified by PayPeriod) for which the transaction is allowed to fail before PayPal cancels a profile.
RetryNumDays	The number of consecutive days that PayPal should attempt to process a failed transaction until Approved status is received.

Attribute	Description
E-Mail	Customer e-mail address.
CompanyName	Company name for this profile.
Comment	Free-form comment about the purchase.
OptionalTrans	Defines an optional Authorization for validating the account information or for charging an initial fee.
OptionalTransAmt	Amount of the Optional Transaction.
BillTo Name, Address, Phone, and Fax	Information about the buyer.
ShipTo Name, Address, Phone, and Fax	Information about the shipping addresses, if different from BillTo .
OrigProfileID	Profile ID of the profile that gets the action.
PaymentNum	Payment number identifying the failed payment to be retried.
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

ExtData

```
<ExtData Name= Value= />
```

Attribute	Description
Name	Name of the extended data element.
Value	Value of the extended data element.

The XMLPayResponse Document (Transactions)

```
<XMLPayResponse>
  <ResponseData>
    (Vendor)
    (Partner)
    <TransactionResults>
      (TransactionResult)+
    </TransactionResults>
  </ResponseData>
  (Signature)?
  (TransactionReceipts)?
```

```
</XMLPayResponse>
```

Attribute	Description
Vendor	Identifies the merchant of record for the transaction within the payment processing network.
Partner	Identifies the partner who submitted the transaction on behalf of the vendor.
TransactionResult	Defined on page 38 .
Signature	Optional signature over ResponseData , executed by the payment processing gateway using the W3C XML Signature syntax. This signature may be used to provide integrity protection of the response data and/or authentication of the responder, if needed (transport-level security may also be used to provide these protections).
TransactionReceipts	Optional list of receipts from the payment processing network.

TransactionResult

```
<TransactionResult Id=?>
  (Result)
  (BuyerAuthResult)?
  (ProcessorResult)?
  (FraudPreprocessorResult)?
  (FraudPostprocessorResult)?
  (CardSecure)?
  (IAVSResult)?
  (AVSResult)?
  (CVResult)?
  (Message)?
  (PNRef)?
  (AuthCode)?
  (HostCode)?
  (HostURL)?
  (OrigResult)?
  (Status)?
  (ReceiptURL)?
  (ACHStatus)?
  (OrigPNRef)?
  (OrigMessage)?
  (PayPalResult)?
  (ExtData)*
</TransactionResult>
```

Element	Description
Result	Number that indicates outcome of the transaction (see Appendix C, “Transaction Results”).
BuyerAuthResult	Results of the VerifyEnrollment or ValidateAuthentication transaction.
ProcessorResult	Processor-specific information. Only received if Verbosity is set to High.
FraudPreprocessorResult	Results from the Fraud Protection Service pre-process stage.
FraudPostprocessorResult	Results from the Fraud Protection Service post-process stage.
CardSecure	CAVV information returned from the processor.
IAVSResult	International AVS result value, if appropriate.
AVSResult	Results of the AVS check, if appropriate.
CVResult	Results of the CV check, if appropriate. Possible values: match, no match, service not available, or service not requested.
Message	Descriptive message describing Result .
PNRef	Identifier assigned to the transaction by the payment processing network.
AuthCode	Authorization code for the transaction provided by the bank, if any.
HostCode	Result code returned by the payment processor, if any. Whereas Result provides a normalized view the transaction status, HostCode passes through the back-end processor status unmodified.
HostURL	URL returned by the payment processor, if any, to use in referring to the transaction.
OrigResult	Original result for a transaction queried with GetStatus .
Status	Current status for a transaction queried with GetStatus .
ACHStatus	Status of the ACH transaction (returned by Inquiry transaction).
OrigPNRef	The PNRef value associated with the original transaction (returned by Inquiry transaction).
OrigMessage	The Message value associated with the original transaction (returned by Inquiry transaction).
PayPalResult	
ReceiptURL	URL returned by the payment processor, if any, to use in referring to a receipt for the transaction.

Element	Description
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Attribute	Description
Result	Number that indicates outcome of the transaction (see Appendix C, “Transaction Results”).
CustRef	Reference string that identifies the customer.
Duplicate	Identify if the transaction has been run before.

AVSResult

```
<AVSResult>
  (StreetMatch)
  (ZipMatch)
</AVSResult>
```

Attribute	Description
StreetMatch	Indicates whether or not the billing street address matched the bank's records. Possible values: match, no match, service not available, or service not requested.
ZipMatch	Indicates whether or not the billing zip matched the bank's records. Possible values: match, no match, service not available, or service not requested.

PayPalResult

```
<PayPalResult>
  (EMail?)
  (PayerID?)
  (Token?)
  (PPRef?)
  (FeeAmount)
  (PayerStatus?)
  (PaymentType?)
  (PendingReason?)
  (Custom?)
  (InvNum?)
  (Phone?)
  (Name?)
  (ShipTo?)
  (CorrelationID?)
</PayPalResult>
```


Attribute	Description
Email	Customer's email address.
PayerID	Unique encrypted PayPal customer account identification number
Token	Value PayPal originally returns in Set Express Checkout response after your first call to the Set Express Checkout request.
PPRef	Unique transaction ID of the payment. If the request ACTION was A (Authorization), you should store the value of PPREF if you need to research a specific transaction with PayPal.
FeeAmount	PayPal fee amount charged for the transaction.
PayerStatus	Status of payer.
PaymentType	Indicates whether the payment is instant or delayed.
PendingReason	The reason the payment is pending. Values are: none, echeck, intl, multi-currency, verify, other, and completed.
Custom	Free-form field for your own use.
InvNum	Merchant invoice number. The merchant invoice number is used for authorizations and settlements and, depending on your merchant bank, will appear on your customer's credit card statement and your bank reconciliation report. If you do not provide an invoice number, the transaction ID (PNREF) will be submitted.
Phone	Account holder's telephone number.
ShipTo Name, Address, EMail, Phone, Phone2, Fax, and ShipToEU	Information about the shipping addresses, if different from BillTo .
CorrelationID	Value used for tracking this Direct Payment transaction.

The XMLPayResponse Document (Recurring Profiles)

```

<XMLPayResponse>
  <ResponseData>
    (Vendor)
    (Partner)
    <RecurringProfileResults>
      (RecurringProfileResult)+
    </RecurringProfileResults>
  </ResponseData>
  (Signature)?
  (TransactionReceipts)?

```

```
</XMLPayResponse>
```

Attribute	Description
Vendor	Identifies the merchant of record for the transaction within the payment processing network.
Partner	Identifies the partner who submitted the transaction on behalf of the vendor.
RecurringProfileResult	Defined on page 43 .
Signature	Optional signature over ResponseData , executed by the payment processing gateway using the W3C XML Signature syntax. This signature may be used to provide integrity protection of the response data and/or authentication of the responder, if needed (transport-level security may also be used to provide these protections).
TransactionReceipts	Optional list of receipts from the payment processing network.

BuyerAuthResult

Response for Buyer Authentication transactions, `VerifyEnrollment` and `ValidateAuthentication`.

```
<BuyerAuthResult>
  (Status)
  (AuthenticationId)?
  (PAREq)?
  (ACSUrl)?
  (ECI)?
  (CAVV)?
  (XID)?
</BuyerAuthResult>
```

Attribute	Description
Status	Status of the transaction.
AuthenticationId	Message id for the response.
PAREq	Payer authentication request returned if cardholder is enrolled.
ACSUrl	The issuer ACS URL at which the cardholder would authenticate by providing the password.
ECI	The Electronic Commerce Indicator value that implies the authentication outcome. Defaulted to 7 since cardholder has not authenticated yet.
CAVV	Cardholder Authentication Verification Value.
XID	Transaction ID.

RecurringProfileResult

Non-Inquiries

Response for Add, Modify, Cancel, Reactivate, and Payment actions.

```
<RecurringProfileResult Id=?>
  (Result)
  (Message)?
  (ProfileID)?
  (RPref)?
  (TransactionResult)?
  (ExtData)*
</RecurringProfileResult>
```

Attribute	Description
Result	Number that indicates outcome of the transaction (see Appendix C, “Transaction Results”).
Message	Descriptive message describing Result .
ProfileID	Profile ID of the profile that gets the action.
RPref	Identifier assigned to the transaction by the payment processing network.
TransactionResult	
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).
Id	Identifier assigned to the transaction by the merchant (if one was provided in the transaction request).

Inquiries

Response for Inquiry action.

```
<RecurringProfileResult Id=?>
  (Result)
  (Message)?
  (ProfileID)?
  (RPref)?
  (Status)?
  (Name)?
  (Start)?
  (Term)?
  (End)?
  (PayPeriod)?
  (MaxFailPayments)?
  (RetryNumDays)?
  (EMail)?
  (CompanyName)?
  (Amt)?
```

```

    (PaymentsLeft)?
    (NextPayment)?
    (AggregateAmt)?
    (AggregateOptionalTransAmt)?
    (NumFailedPayments)?
    (Tender)?
    (BillTo)?
    (ShipTo)?
    (ExtData)*
</RecurringProfileResult>

```

Attribute	Description
Result	Number that indicates outcome of the transaction (see Appendix C, “Transaction Results”).
Message	Descriptive message describing Result .
ProfileID	Profile ID of the profile that gets the action.
RPref	Identifier assigned to the transaction by the payment processing network.
Status	Current status of the profile.
Name	Account holder's name.
Start	Beginning (or restarting) date for the recurring billing cycle used to calculate when payments should be made.
Term	Number of payments to be made over the life of the agreement.
End	Date that the last payment is due. Present only if this is not an unlimited-term subscription.
PayPeriod	Specifies how often the payment occurs.
MaxFailPayments	The number of payment periods (specified by PayPeriod) for which the transaction is allowed to fail before PayPal cancels a profile.
RetryNumDays	The number of consecutive days that PayPal should attempt to process a failed transaction until Approved status is received.
EMail	Customer e-mail address.
CompanyName	Company name for this profile.
Amt	Dollar amount (US dollars) to be billed.
PaymentsLeft	Number of payments left to be billed.
NextPayment	Date that the next payment is due
AggregateAmt	Amount collected so far for scheduled payments.

Attribute	Description
AggregateOptionalTransAmount	Amount collected through sending optional transactions
NumFailedPayments	Number of payments that failed.
Tender	Specifies payment type.
BillTo	Information about the buyer.
ShipTo	Information about the shipping addresses, if different from BillTo .
ExtData	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

3

XMLPay Elements

The following tables define the existing Payflow SDK parameters (name/value pairs) and their XMLPay equivalent.

IMPORTANT: Parameter requirements differ by processor. For details on the parameters accepted by each processor and the parameter formats and character limits, see the [Gateway Developer Guide and Reference](#).

If you are developing applications that use the Recurring Billing Service, see the [Recurring Billing Service User's Guide](#), which lists the detailed Payflow parameters specific to Recurring Billing.

NOTE: ExtData is an optional XMLPay element for including parameter data not supported by the schema you are using. Place the data at the appropriate element level in the XMLPay hierarchy. If you can't find or are unsure of the appropriate location, place the data in the Invoice element. See the examples in "[Express Checkout Authorization Transaction](#)" on page 84.

General Transaction Parameters

The following are general parameters accepted in Payflow SDK transactions.

TABLE 3.1 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
COMMCARD	Type of commercial card account number sent.	Card→CommercialCard
COUNTRYCODE	Destination country code. (See the appendix entitled "ISO Country Codes" in the Gateway Developer Guide and Reference .)	ShipTo→Address→Country
COMPANYNAME	Billing country code	BillTo→Address→Company
CUSTIP	IP address of customer	Invoice→CustIP
ECI	Values returned from Buyer Auth transaction	Card→BuyerAuthResult→ECI
MERCHDESCR	Description of product.	Invoice→MerchantDescription
MERCHSVC	Merchant telephone number, including area code (XXX-XXX-XXXX)	Invoice→MerchantServiceNum
ORDERDATE	Date of invoice	Invoice→Date
RECURRING	Recurring transaction?	Invoice→Recurring

TABLE 3.1 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
UPDATEACTION	Update action to take	TransactionUpdate→Action
VERBOSITY	Verbosity level of response desired	Transaction→Verbosity

Credit Card Transaction Parameters

The following parameters are accepted in Payflow SDK credit card transactions.

Retail Credit Card Transaction Parameters

Table 3.2 lists retail credit card transaction parameters.

TABLE 3.2 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
ABA	Bank routing number.	ABA
ACCT	The credit card or purchase card number	AcctNum or CardNum
ACCTTYPE	Type of the bank account.	AcctType or CheckType
AMT	Amount in US dollars.	Invoice→TotalAmt
AUTHCODE	The approval code obtained over the phone from the processing network. Used only when processing Voice Authorization transactions.	AuthCode
AUTHTYPE	Method of authorization.	AuthType
CHKNUM	Check number.	CheckNum
CHKTYPE	Type of the bank account.	AcctType
CITY	Cardholder's city.	City
COMMCARD	Type of commercial card account number sent.	Card→CommercialCard
COMMENT1	Merchant-defined value for reporting and auditing purposes.	Comment
COMMENT2	Merchant-defined value for reporting and auditing purposes.	ExtData
COUNTRY	Destination country code. (See the appendix entitled "ISO Country Codes" in the Gateway Developer Guide and Reference .)	Country

TABLE 3.2 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
CUSTCODE	Customer code or customer reference ID.	CustCode
CUSTREF	Merchant-defined identifier for reporting and auditing purposes.	CustRef
CVV2	The 3 or 4-digit Card Security Code (CSC) found on the back of a credit card.	CVNum
DESC	General description of the transaction.	Item→Description
DESC1-4	Up to 4 additional lines describing the transaction.	Item→Description
DISCOUNT	Discount amount on total sale.	DiscountAmt
DL	Cardholder's driver's license number.	DL
DOB	Cardholder's date of birth.	DOB
DSGUID	Transaction ID	Id
DUTYAMT	Duty or import tax.	DutyAmt
EMAIL	Email address.	Email
ENDTIME	Specifies the end of the time period during which the transaction specified by the CUSTREF occurred. Optional for Inquiry transactions when using CUSTREF to specify the transaction.	ExtData
EXECUTOR	Names a partner or a vendor under whose auspice a transaction is being submitted.	UserDomain
EXPDATE	Expiration date of the credit card.	ExpDate
FIRSTNAME	The cardholder's name.	Name or NameOnCard
FREIGHTAMT	Freight amount.	FreightAmt or ShippingAmt
HANDLINGAMT	Handling amount.	Item→HandlingAmt
INVNUM	Merchant invoice number.	Invoice→InvNum
INVOICEDATE	Invoice date.	Date
L_AMT	Total line item amount including tax and discount.	Invoice→TotalAmt
L_CARRIERSHIPMENTNUM	Shipment number.	ShipmentNumber
L_CATALOGNUM	Merchant's product code.	CatalogNumber
L_COSTCENTERNUM	Purchaser's department number to which the item will be billed.	CostCenterNumber
L_COST	Cost per item, excluding tax.	UnitPrice

TABLE 3.2 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
L_DELIVERYDATE	Delivery date.	Date
L_DELIVERYTIME	Delivery time.	Time
L_DESC	Item description.	Item→Description
L_DISCOUNT	Discount per line item.	DiscountAmt
L_FREIGHTAMT	Line item freight amount.	FreightAmt
L_HANDLINGAMT	Line item handling amount.	Item→HandlingAmt
L_PICKUPCITY	Pickup city.	City
L_PICKUPCOUNTRY	Pickup record number.	Country
L_PICKUPDATE	Pickup date.	Date
L_PICKUPRECORDNUM	Pickup record number.	RecordNumber
L_PICKUPSTATE	Pickup state.	State
L_PICKUPSTREET	Pickup address.	Street
L_PICKUPTIME	Pickup time.	Time
L_PICKUPZIP	Pickup postal code.	Zip
L_PRODCODE	Supplier-specific product code.	SKU
L_QTY	Line item quantity.	Item→Quantity
L_SKU	Line item SKU identifier.	SKU
L_TAXAMT	Line item tax amount.	Item→TaxAmt
L_TRACKINGNUM	Tracking number.	TrackingNumber
L_UNSPSCCODE	Universal Standard Products and Services Classification.	UNSPSCCode
L_UOM	Item unit of measure.	UnitOfMeasurement
L_UPC	Item commodity code.	UPC
MICR	Data located on the magnetic strip of a credit card.	MagData or MICR
NATINCL	National tax included (true or false).	NationalTaxIncl
ORDERDATE	Order date.	ExtData
ORIGID	The Reference ID (PNREF) returned for all transactions.	PNRef

TABLE 3.2 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
PARTNER	The ID provided to you by the authorized Reseller who registered you for the Website Payments Pro Payflow Edition service. If you purchased your account directly from PayPal, use PayPal. This value is case-sensitive.	Partner
PHONENUM	Telephone number.	Phone
PHONETYPE	Telephone call type identifier	BillTo→PhoneType
PONUM	Specified by the cardholder to identify the order. Usually used as a Purchase Order number.	BillTo→PONum
PRENOTE	Identifies the transaction as an authorization for future transactions.	Prenote
PWD	The 6- to 32-character password that you defined while registering for the account. This value is case-sensitive.	Password
RECURRING	Identifies the transaction as recurring.	ExtData
SHIPFROMZIP	Ship-from postal code.	Zip
SHIPTOCITY	Ship-to city.	ShipTo→Address→City
SHIPTOFIRSTNAME	Ship-to name.	Name
SHIPTOSTATE	Ship-to state.	ShipTo→Address→State
SHIPTOSTREET	Ship-to street.	ShipTo→Address→Street
SHIPTOZIP	Ship-to postal code.	ShipTo→Address→Zip
SS	Cardholder's Social Security Number.	SS
STARTTIME	Specifies the beginning of the time period during which the transaction specified by the CUSTREF occurred. Optional for Inquiry transactions when using CUSTREF to specify the transaction.	ExtData
STATE	Cardholder's state.	State
STREET	The cardholder's street address (number and street name).	Street
SWIPE	Used to pass the Track 1 or Track 2 data (the card's magnetic stripe information) for card-present transactions.	MagData
TAXAMT	Tax amount.	Item→TaxAmt

TABLE 3.2 Retail credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
TAXEXEMPT	Tax exempt status.	TaxExempt
TENDER	The method of payment.	Tender
TRXTYPE	The type of transaction. For XMLPay: <ul style="list-style-type: none"> • Authorization • Capture • Sale • Credit • Void • ForceCapture • RepeatSale • GetStatus 	XMLPay transaction type
USER	If you set up one or more additional users on the account, this value is the ID of the user authorized to process transactions. If, however, you have not set up additional users on the account, USER has the same value as VENDOR. This value is case sensitive.	UserName
VENDOR	Your merchant login ID that you created when you registered for the account. This value is case sensitive.	Vendor
ZIP	The cardholder's postal code.	Zip

Level 3 (Commercial) Credit Card Transaction Parameters

Table 3.3 lists level 3 (commercial) credit card transaction parameters.

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
ALLTAXEXEMPTCODE	Tax exempt code	Level3Invoice→AllTax
ALLTAXPERCENT	Tax rate	Level3Invoice→AllTax
ALTTAXAMT	Tax amount	Level3Invoice→AllTax
ALTERNATETAXAMT	Alternate tax amount	Level3Invoice→AlternateTaxAmount
ALTERNATETAXID	Alternate tax ID number	Level3Invoice→AlternateTaxID
BGNAME	Buying Group name	Level3Invoice→BuyingGroup

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
BGFIRSTADDR	Buying Group first address line	Level3Invoice→ BuyingGroup
BGSECONDADDR	Buying Group second address line	Level3Invoice→ BuyingGroup
BGCITY	Buying Group city	Level3Invoice→ BuyingGroup
BGSTATE	Buying Group state	Level3Invoice→ BuyingGroup
BGZIP	Buying Group zip code	Level3Invoice→ BuyingGroup
BGCOUNTRY	Buying Group country	Level3Invoice→ BuyingGroup
CARDSTART	Starting date printed on card (Switch Solo only)	Level3Invoice→ CardStart
CARDISSUE	Issue number printed on card (Switch Solo only)	Level3Invoice→ CardIssue
COUNTYTAXAMT	County tax amount	Level3Invoice→ CountyTax
COUNTYTAXEXEMPTCODE	County tax exempt code	Level3Invoice→ CountyTax
COUNTYTAXPERCENT	County tax rate	Level3Invoice→ CountyTax
COUNTYSALESTAXAMT	County sales tax amount	Level3Invoice→ CountySalesTax
COUNTYSALESTAXEXEMPTCODE	County sales tax exempt code	Level3Invoice→ CountySalesTax
COUNTYSALESTAXPERCENT	County sales tax amount	Level3Invoice→ CountySalesTax
CITYTAXAMT	City tax amount	Level3Invoice→CityTax
CITYTAXEXEMPTCODE	City tax exempt code	Level3Invoice→CityTax
CITYTAXPERCENT	City tax rate	Level3Invoice→CityTax
COMMCODE	Commercial code for business cards (not typically used)	Level3Invoice→ CommCode
CUSTVATREGNUM	Customer value added tax registration number	Level3Invoice→ CustomerValueAdded- TaxRegNum

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
EVTAXAMT	Environmental tax amount	Level3Invoice→ EnvironmentalTax
EVTAXEXEMPTCODE	Environmental tax exempt code	Level3Invoice→ EnvironmentalTax
EVTAXPERCENT	Environmental tax rate	Level3Invoice→ EnvironmentalTax
FREIGHTRATE	Rate charged for shipping	Level3Invoice→ FreightRate
GENERICPRODDISC	Generic product description	Level3Invoice→ GenericProduct- Description
HANDLINGRATE	Rate charged for handling	Level3Invoice→ HandlingRate
INVEXPDATE	Invoice expiration date	Level3Invoice→ InvoiceExpirationDate
LOCALTAXAMT	Local tax amount	Level3Invoice→ LocalTax
LOCALTAXEXEMPTCODE	Local tax exemption code	Level3Invoice→ LocalTax
LOCALTAXPERCENT	Local tax rate	Level3Invoice→ LocalTax
NATIONALTAXAMT	National tax amount	Level3Invoice→ NationalTax
RECURRING	Recurring billing indicator	
REQNAME	Name of requestor	Level3Invoice→ Requestor
REQFIRSTADDR	First line of street address for requestor	Level3Invoice→ Requestor
REQSECONDADDR	Second line of street address for shipper	Level3Invoice→ Requestor
REQCITY	City of requestor	Level3Invoice→ Requestor
REQSTATE	State of requestor	Level3Invoice→ Requestor
REQZIP	Zip code of requestor	Level3Invoice→ Requestor

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
REQCOUNTRY	Country of requestor	Level3Invoice→Requestor
SHIPPEDFROMNAME	Name of shipper	Invoice→ShipFrom
SHIPPEDFROMFIRSTADDR	First line of street address for shipper	Invoice→ShipFrom
SHIPPEDFROMSECONDADDR	Second line of street address for shipper	Invoice→ShipFrom
SHIPPEDFROMCITY	City of shipper	Invoice→ShipFrom
SHIPPEDFROMSTATE	State of shipper	Invoice→ShipFrom
SHIPPEDFROMZIP	Zip code of shipper	Invoice→ShipFrom
SHIPPEDFROMCOUNTRY	Country of shipper	Invoice→ShipFrom
STATEANDLOCALTAXAMT	State and Local tax amount	Level3Invoice→StateAndLocalTax
STATEANDLOCALTAXEXEMPTCODE	State and Local tax exempt code	Level3Invoice→StateAndLocalTax
STATEANDLOCALTAXPERCENT	State and Local tax rate	Level3Invoice→StateAndLocalTax
STATESALESTAXAMT	State tax amount	Level3Invoice→StateTax
STATESALESTAXEXEMPTCODE	State tax exempt code	Level3Invoice→StateTax
STATESALESTAXPERCENT	State tax rate	Level3Invoice→StateTax
STATEGOODSTAXAMT	State goods tax amount	Level3Invoice→StateGoodsTax
STATEGOODSTAXEXEMPTCODE	State goods tax exempt code	Level3Invoice→StateGoodsTax
STATEGOODSTAXPERCENT	State goods tax rate	Level3Invoice→StateGoodsTax
STATETAXAMT	State tax amount	Level3Invoice→StateTax
STATETAXEXEMPTCODE	State tax exempt code	Level3Invoice→StateTax
STATETAXPERCENT	State tax rate	Level3Invoice→StateTax

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
STATESERVICESTAXAMT	State services tax amount	Level3Invoice→ StateServicesTax
STATESERVICESTAXEXEMPTCODE	State services tax exempt code	Level3Invoice→ StateServicesTax
STATESERVICESTAXPERCENT	State services tax rate	Level3Invoice→ StateServicesTax
VATAXAMT	Value added tax amount	Level3Invoice→ ValueAddedTax
VATAXEXEMPTCODE	Value added tax exempt code	Level3Invoice→ ValueAddedTax
VATAXPERCENT	Value added tax rate	Level3Invoice→ ValueAddedTax
VATREGNUM	Value added tax registration number	Level3Invoice→ ValueAddedTaxRegNum
Line item Transactions - Identifies one item in a transaction with multiple items. The number of the item is appended to the parameter.		
L_ALLTAXAMT	All tax amount line item	Level3Item→AllTax
L_ALLTAXEXEMPTCODE	All tax exemption code line item	Level3Item→AllTax
L_ALLTAXPERCENT	All tax rate line item	Level3Item→AllTax
L_CITYTAXAMT	City tax amount line item	Level3Item→CityTax
L_CITYTAXEXEMPTCODE	City tax exemption code line item	Level3Item→CityTax
L_CITYTAXPERCENT	City tax rate line item	Level3Item→CityTax
L_COUNTYSALESTAXAMT	County sales tax amount line item	Level3Item→ CountySalesTax
L_COUNTYSALESTAXEXEMPTCODE	County sales tax exemption code line item	Level3Item→ CountySalesTax
L_COUNTYSALESTAXPERCENT	County sales tax rate line item	Level3Item→ CountySalesTax
L_COUNTYTAXAMT	County tax amount line item	Level3Item→ CountyTax
L_COUNTYTAXEXEMPTCODE	County tax exemption code line item	Level3Item→ CountyTax
L_COUNTYTAXPERCENT	County tax rate line item	Level3Item→ CountyTax

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
L_EVTAXAMT	Environmental tax amount line item	Level3Item→EnvironmentalTax
L_EVTAXEXEMPTCODE	Environmental tax exemption code line item	Level3Item→EnvironmentalTax
L_EVTAXPERCENT	Environmental tax rate line item	Level3Item→EnvironmentalTax
L_LOCALTAXAMT	Local tax amount line item	Level3Item→LocalTax
L_LOCALTAXEXEMPTCODE	Local tax exemption code line item	Level3Item→LocalTax
L_LOCALTAXPERCENT	Local tax rate line item	Level3Item→LocalTax
L_STATEANDLOCALTAXAMT	State and local tax amount line item	Level3Item→StateAndLocalTax
L_STATEANDLOCALTAXEXEMPTCODE	State and local tax exemption code line item	Level3Item→StateAndLocalTax
L_STATEANDLOCALTAXPERCENT	State and local tax rate line item	Level3Item→StateAndLocalTax
L_STATETAXAMT	State tax amount line item	Level3Item→StateTax
L_STATETAXEXEMPTCODE	State tax exemption code line item	Level3Item→StateTax
L_STATETAXPERCENT	State tax rate line item	Level3Item→StateTax
L_STATEGOODSTAXAMT	State goods tax amount line item	Level3Item→StateGoodsTax
L_STATEGOODSTAXEXEMPTCODE	State goods tax exemption code line item	Level3Item→StateGoodsTax
L_STATEGOODSTAXPERCENT	State goods tax rate line item	Level3Item→StateGoodsTax
L_STATESALESTAXAMT	State sales tax amount line item	Level3Item→StateSalesTax
L_STATESALESTAXEXEMPTCODE	State sales tax exemption code line item	Level3Item→StateSalesTax
L_STATESALESTAXPERCENT	State sales tax rate line item	Level3Item→StateSalesTax
L_STATESERVICESTAXAMT	State service tax amount line item	Level3Item→StateServicesTax
L_STATESERVICESTAXEXEMPTCODE	State service tax exemption code line item	Level3Item→StateServicesTax

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

Payflow SDK Parameter	Description	XMLPay Element
L_STATESERVICESTAXPERCENT	State service tax rate line item	Level3Item→ StateServicesTax
L_TAXTYPE	Tax type line item	Level3Item→TaxType
L_VATAXAMT	Value added tax amount line item	Level3Item→ ValueAddedTax
L_VATAXEXEMPTCODE	Value added tax exemption code line item	Level3Item→ ValueAddedTax
L_VATAXPERCENT	Value added tax rate line item	Level3Item→ ValueAddedTax

Buyer Authentication Transaction Parameters

Table 3.4 lists the buyer authentication transaction parameters.

TABLE 3.4 Transaction response parameters

Payflow SDK Parameter	Description	XMLPay Element
AUTHENTICATION_ID	Values returned from Buyer Auth transaction	BuyerAuthResult→ AuthenticationId
AUTHENTICATION_STATUS	Values returned from Buyer Auth transaction	BuyerAuthResult→Status
CAVV	Values returned from Buyer Auth transaction	BuyerAuthResult→CAVV
UCAF	Values returned from Buyer Auth transaction	BuyerAuthResult→CAVV
XID	Values returned from Buyer Auth transaction	BuyerAuthResult→XID

Credit Card Transaction Response Parameters

Table 3.5 lists the parameters returned for a credit card transaction.

TABLE 3.5 Transaction response parameters

Payflow SDK Parameter	Description	XMLPay Element
ADDLMSG	Additional messages	ProcessorResult→AdditionalMessages
AMEXID	Unique identifier to track American Express transactions.	ProcessorResult→AMEXID
AUTHCODE	Returned for Sale Authorization.	AuthCode
AVSADDR	AVS address verification response.	AVSResult
AVSZIP	AVS ZIP code verification response.	AVSResult
BALAMT	Balance on a pre-paid stored value card for American Express CAPN transactions	ProcessorResult→BalanceAmount
CARDSECURE	Raw card secure value	TransactionResult→CardSecure
CVV2MATCH	Result of the card security code (CVV2) check.	CVResult
HOSTCODE	Raw response from processor	ProcessorResult→HostCode
IAVS	IAVS result code	TransactionResult→IAVSResult
PNREF	Reference ID, a unique number that identifies the transaction.	PNRef
RESPMSG	The response message returned with the transaction result.	Message
PROCAVS	Raw processor AVS result code	ProcessorResult→AVSResult
PROCCVV2	Raw processor CVV2 result code	ProcessorResult→CVResult
PROCCARDSECURE	Raw card secure value from processor	ProcessorResult→CardSecure
RRN	Retrieval reference number (typically not passed to merchant)	ProcessorResult→RRN
RESPTXT	Text response returned from processor (for example, <i>Approval</i>)	ProcessorResult→ResponseText
RESULT	The outcome of the attempted transaction.	Result

TABLE 3.5 Transaction response parameters

Payflow SDK Parameter	Description	XMLPay Element
SETTLE_DATE	Date transaction will settle	ProcessorResult→SettleDate
STAN	Unique PayPal-generated transaction ID for processor (typically not passed to merchant)	ProcessorResult→STAN

ACH Transaction Parameters (Norwest)

Table 3.6 lists the ACH transaction parameters. These parameters are specific to Norwest.

TABLE 3.6 Transaction response parameters

Payflow SDK Parameter	Description	XMLPay Element
TERMCITY	City of terminal that captured the transaction	ACH→TermCity
TERMSTATE	State of terminal that captured the transaction	ACH→TermState

PayPal Express Checkout Request Transaction Parameters

Table 3.7 lists the PayPal Express Checkout request transaction parameters.

TABLE 3.7 Express Checkout request parameters

Express Checkout Parameter	Description	XMLPay Element
ADDROVERRIDE	PayPal pages display the shipping address set in the shipping address parameters in the Set Express Checkout request, not the shipping address on file with PayPal for this customer.	PayPal→AddressOverride
AMT	Amount (US Dollars) U.S. based currency. If shipping cost and tax charges are known, include them in AMT. If not, AMT should be the current subtotal of the order.	Invoice→TotalAmt
BUTTONSOURCE	Identification code for use by third-party applications to identify transactions.	PayPal→ButtonSource
CANCELURL	URL to which the customer is returned if the customer does not approve the use of PayPal to pay you.	PayPal→CancelURL

TABLE 3.7 Express Checkout request parameters (Continued)

Express Checkout Parameter	Description	XMLPay Element
CUSTOM	Free-form field for your own use such as a tracking number or other value you want PayPal to return in the Get Express Checkout Details response.	PayPal→ExtData
EMAIL	Customer's email address.	PayPal→EMail
HANDLINGAMT	Total handling amount.	Item→HandlingAmt
HDRBACKCOLOR	Sets the background color for the header of the payment page.	PayPal→HeaderBackColor
HDRBORDERCOLOR	Sets the border color around the header of the payment page. The border is a 2-pixel perimeter around the header space, which is 750 pixels wide by 90 pixels high.	PayPal→HeaderBorderColor
HDRIMG	URL for the image you want to appear at the top left of the payment page. The image has a maximum size of 750 pixels wide by 90 pixels high. PayPal recommends that you provide an image that is stored on a secure (https) server.	PayPal→HeaderImage
INVNUM	Merchant invoice number. The merchant invoice number is used for authorizations and settlements and, depending on your merchant bank, will appear on your customer's credit card statement and your bank reconciliation report. If you do not provide an invoice number, the transaction ID (PNREF) will be submitted.	Invoice→InvNum
ITEMAMT	Sum of cost of all items in this order.	Invoice→ItemAmt
L_AMTn	Cost of line item.	Invoice→TotalAmt
L_DESCn	Item description	Item→Description
L_QTYn	Quantity (whole units only)	Item→Quantity
L_TAXAMTn	Line item tax amount	Item→TaxAmt
LOCALECODE	Locale of pages displayed by PayPal during Express Checkout.	PayPal→LocaleCode
MAXAMT	The expected maximum total amount of the complete order, including shipping and tax charges.	PayPal→ExtData
MEMO	Custom memo about the credit.	PayPal→ExtData

TABLE 3.7 Express Checkout request parameters (Continued)

Express Checkout Parameter	Description	XMLPay Element
NOSHIPPING	Is 1 or 0. 1 indicates that on the PayPal pages, no shipping address fields should be displayed whatsoever.	PayPal→NoShipping
NOTE	An informal note about this settlement that is displayed to the customer in email and in the customer's transaction history.	PayPal→ExtData
NOTIFYURL	Your URL for receiving Instant Payment Notification (IPN) about this transaction.	PayPal→NotifyURL
ORDERDESC	Description of items the customer is purchasing.	PayPal→ExtData
PAGESTYLE	Sets the Custom Payment Page Style for payment pages associated with this button/link. PageStyle corresponds to the HTML variable page_style for customizing payment pages.	PayPal→PageStyle
PAYERID	Unique encrypted PayPal customer account identification number.	PayPal→PayerId
PAYFLOWCOLOR	Sets the background color for the payment page.	PayPal→PayflowColor
REQCONFIRMSHIPPING	Is 1 or 0. The value 1 indicates that you require that the customer's shipping address on file with PayPal be a confirmed address.	PayPal→ReqConfirmShipping
RETURNURL	URL to which the customer's browser is returned after approving use of PayPal.	PayPal→ReturnURL
SHIPPINGTOTAL	You must set the currencyID attribute to USD. Must not exceed \$10,000 USD. No currency symbol. Decimal separator must be a period (.).	PayPal→ExtData
SHIPTOCITY	Shipping city	ShipTo→Address→City
SHIPTOCOUNTRY	Destination Country Code. (See the appendix entitled "ISO Country Codes" in the Gateway Developer Guide and Reference .)	ShipTo→Address→Country
SHIPTOSTATE	Shipping state. US = 2-letter state code. Outside US, use full name.	ShipTo→Address→State
SHIPTOSTREET	Shipping street address	ShipTo→Address→Street
SHIPTOSTREET2	Extended shipping address. Example: Bldg. 6, Mail Stop 3.	ShipTo→Address→Street2

TABLE 3.7 Express Checkout request parameters (Continued)

Express Checkout Parameter	Description	XMLPay Element
SHIPTOZIP	Shipping postal code (called ZIP code in the USA)	ShipTo→Address→Zip
TAXAMT	Sum of tax for all items in this order.	Item→TaxAmt
TOKEN	Value returned in Set Express Checkout response to identify this request as part of the same checkout session.	PayPal→Token

PayPal Express Checkout Response Transaction Parameters

Table 3.7 lists the PayPal Express Checkout response transaction parameters.

TABLE 3.8 Mapping Express Checkout parameters to XMLPay parameters

Express Checkout Parameter	Description	XMLPay Element
CUSTOM	Free-form field for your own use such as a tracking number or other value you want PayPal to return in the Get Express Checkout Details response.	PayPalResult→Custom
EMAIL	Customer's email address.	PayPalResult→Custom
FEEAMT	PayPal fee amount charged for the transaction.	PayPalResult→ExtData
INVNUM	Your own unique invoice or tracking number.	PayPalResult→InvNum
PAYERID	Unique encrypted PayPal customer account identification number.	PayPalResult→PayerId
PAYERSTATUS	Status of customer.	PayPalResult→PayerStatus
PHONENUM	Account holder's telephone number.	PayPalResult→Phone
PPREF	Unique transaction ID of the payment	PayPalResult→PPRef
SHIPTOBUSINESS	Customer's business name.	PayPalResult→ExtData
SHIPTOCITY	Name of ship-to city.	ShipTo→Address→City
SHIPTOCOUNTRY	Ship-to country code. (See the appendix entitled "ISO Country Codes" in the Gateway Developer Guide and Reference .)	ShipTo→Address→Country
SHIPTOCOUNTRYCODE	Customer's country of residence in the form of ISO standard 3166 two-character country codes.	PayPalResult→ExtData
SHIPTOSTATE	Name of ship-to state or province.	ShipTo→Address→State

TABLE 3.8 Mapping Express Checkout parameters to XMLPay parameters

Express Checkout Parameter	Description	XMLPay Element
SHIPTOZIP	U.S. ship-to ZIP code or other country-specific postal code.	ShipTo→Address→Zip
TOKEN	Value returned in Set Express Checkout response to identify this request as part of the same checkout session.	PayPal→Token

4

XMLPay Transaction Profiles

The following tables document the transactions supported for each tender, along with the data elements used for each of those transactions.

ACH Transactions

ACH supports the following transactions: Sale, Credit, and Void.

The following data are used to process ACH transactions:

- Invoice.TotalAmt
- ACH.AcctType
- ACH.AcctNum
- ACH.ABA
- ACH.AuthType
- ACH.Prenote
- BillTo.Name

Buyer Authentication Transactions

Buyer authentication supports the following transactions: VerifyEnrollment and ValidateAuthentication.

For VerifyEnrollment, the following data are used to process the transactions (required elements are in bold text):

- Invoice.TotalAmt with Currency attribute
- Invoice.Description
- Card.CardNum
- Card.ExpDate

For ValidateAuthentication, the following data are required to process the transactions:

- PAREs

Card Transactions

Retail credit and debit cards and corporate purchase cards support the following transactions: Sale, Authorization, Delay Capture, Credit, and Void.

The following data are used to process card transactions:

- Invoice.TotalAmt
- Card.CardNum
- Card.ExpDate
- Card.NameOnCard (Defaults to BillTo.Name)
- BillTo.Street, ZIP (Required for AVS)
- CardInfo.CVNum

Purchase Card Level I

Level I purchase cards use the following additional data:

- BillTo.PONum
- Invoice.TaxAmt

Purchase Card Level II

Level II purchase cards use the following additional data:

- BillTo.TaxExempt
- ShipTo.ZIP

Purchase Card Level III

Level III purchase cards use the following additional data:

- Invoice.Date
- BillTo.CustCode
- ShipTo.Country
- ShipFrom.ZIP
- Invoice.ShippingAmt
- Invoice.DiscountAmt
- Item.SKU, UPC, Description, Quantity, UnitOfMeasurement, UnitPrice, ExtAmt, DiscountAmt, TaxAmt, TotalAmt, DutyAmt, NationalTaxIncl

NOTE: Minimum requirements for describing an item are Description, Quantity, and UnitPrice.

$ExtAmt = Quantity * UnitPrice$. $TotalAmt = TaxAmt - DiscountAmt$

Check Transactions

Checks support the following transaction: Sale. The following data are used to process check transactions (required elements are in **bold text**):

- Invoice.TotalAmt
- Check.CheckType
- Check.CheckNum
- Check.MICR
- BillTo.Name
- BillTo.Address
- BillTo.EMail
- BillTo.Phone
- **BillTo.DL** (DL is optional if SS is provided)
- **BillTo.SS** (SS is optional if DL is provided)
- BillTo.DOB
- Invoice.InvNum

PayPal Transactions

PayPal Express Checkout supports the following transactions: Sale, Authorization, Delayed Capture, Void, and Credit.

The following data are used to process PayPal Express Checkout transactions:

- PayPal.CancelURL
- PayPal.ReturnURL
- PayPal.Token
- PayPal.PayerId
- Invoice.TotalAmt
- ShipTo.Address.Street
- ShipTo.Address.City
- ShipTo.Address.State
- ShipTo.Address.Zip
- ShipTo.Address.Country

5

XMLPay Examples

This chapter provides several examples of XMLPay documents.

For specific examples of how to submit XML documents using the Payflow SDK client service, see the Payflow SDK SDKdownload package.

NOTE: To receive namespaces in the XML response document, you must set the XMLPayRequest version attribute to “2.0” or “1.1”. Leaving this attribute out or setting it to any value less than 1.1 leaves the namespace out of the XML response document, which may cause errors with some XML parsers.

Set the version attribute to “2.0” to enable all the functionality described in this document.

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ACH Sale Request

```

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

XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Sale>
          <PayData>
            <Invoice>
              <InvNum>1</InvNum>
              <Date>20020208</Date>
              <BillTo>
                <Name>billtoname</Name>
                <TaxExempt>true</TaxExempt>
              </BillTo>
              <NationalTaxIncl>true</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <ACH>
                <AcctType>C</AcctType>
                <AcctNum>6355059797</AcctNum>
                <ABA>091000019</ABA>
                <Prenote>>false</Prenote>
              </ACH>
            </Tender>
          </PayData>
        </Sale>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>

```

```
</XMLPayRequest>
```

ACH Sale Response

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Requested</StreetMatch>
          <ZipMatch>Service Not Requested</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>VTHD55395864</PNRef>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

Card Authorization Request

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <BillTo>
                <Address>
                  <Street>123 4th street</Street>
                  <City>San Jose</City>
                  <State>CA</State>
                  <Zip>95032</Zip>
                  <Country>USA</Country>
                </Address>
              </BillTo>
            </Invoice>
          </PayData>
        </Authorization>
      </Transaction>
    </Transactions>
  </RequestData>
</XMLPayRequest>
```

```

        </BillTo>
        <TotalAmt>24.97</TotalAmt>
    </Invoice>
    <Tender>
        <Card>
            <CardType>visa</CardType>
            <CardNum>5105105105105100</CardNum>
            <ExpDate>200911</ExpDate>
            <NameOnCard/>
        </Card>
    </Tender>
</PayData>
</Authorization>
</Transaction>
</Transactions>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Card Authorization Response

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <TransactionResults>
            <TransactionResult>
                <Result>0</Result>
                <AVSResult>
                    <StreetMatch>Service Not Available</StreetMatch>
                    <ZipMatch>Service Not Available</ZipMatch>
                </AVSResult>
                <CVResult>Service Not Requested</CVResult>
                <Message>Approved</Message>
                <PNRef>V63A09910356</PNRef>
                <AuthCode>747PNI</AuthCode>
                <HostCode>00</HostCode>
                <OrigResult>0</OrigResult>
            </TransactionResult>
        </TransactionResults>
    </ResponseData>
</XMLPayResponse>

```

Card Capture Request

```
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Capture>
          <PNRef>V63A09910356</PNRef>
        </Capture>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Capture Response

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Available</StreetMatch>
          <ZipMatch>Service Not Available</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V53A09206640</PNRef>
        <AuthCode>747PNI</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

Card Credit Request

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

<XMLPayRequest Timeout="30" version="2.0" xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Credit>
          <PayData>
            <Invoice>
              <TotalAmt>10.00</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardType>MasterCard</CardType>
                <CardNum>5105105105100</CardNum>
                <ExpDate>200911</ExpDate>
              </Card>
            </Tender>
          </PayData>
        </Credit>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Credit Response

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

<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>verisign</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <Message>Approved</Message>
        <PNRef>V18A0FA3CBC2</PNRef>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

Card Credit Reference Credit Request

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Credit>
          <PNRef>V53A09206652</PNRef>
        </Credit>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Credit Reference Credit Response

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

<XMLPayResponse>
```

```

<ResponseData>
  <Vendor>vendor</Vendor>
  <Partner>partner</Partner>
  <TransactionResults>
    <TransactionResult>
      <Result>105</Result>
      <AVSResult>
        <StreetMatch>Service Not Requested</StreetMatch>
        <ZipMatch>Service Not Requested</ZipMatch>
      </AVSResult>
      <CVResult>Service Not Requested</CVResult>
      <Message>Credit error</Message>
      <PNRef>V54A09206685</PNRef>
      <OrigResult>0</OrigResult>
    </TransactionResult>
  </TransactionResults>
</ResponseData>
</XMLPayResponse>

```

Card Force Capture Request

```

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <ForceCapture>
          <PayData>
            <Invoice>
              <NationalTaxIncl>>false</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardType>visa</CardType>
                <CardNum>5105105105105100</CardNum>
                <ExpDate>200911</ExpDate>
                <NameOnCard/>
              </Card>
            </Tender>
          </PayData>
          <AuthCode>AUTHCODE</AuthCode>
        </ForceCapture>
      </Transaction>
    </Transactions>
  </RequestData>
</XMLPayRequest>

```

```

</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Card Force Capture Response

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Requested</StreetMatch>
          <ZipMatch>Service Not Requested</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V54A09206761</PNRef>
        <AuthCode>AUTHCO</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>

```

Card Sale Request

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Sale>
          <PayData>

```

```

    <Invoice>
      <NationalTaxIncl>false</NationalTaxIncl>
      <TotalAmt>24.97</TotalAmt>
    </Invoice>
    <Tender>
      <Card>
        <CardType>visa</CardType>
        <CardNum>5105105105105100</CardNum>
        <ExpDate>200911</ExpDate>
        <NameOnCard/>
      </Card>
    </Tender>
  </PayData>
</Sale>
</Transaction>
</Transactions>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Card Sale Response

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Available</StreetMatch>
          <ZipMatch>Service Not Available</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V64A09909896</PNRef>
        <AuthCode>968PNI</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>

```

Card Secure Request

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <NationalTaxIncl>false</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardType>visa</CardType>
                <CardNum>5105105105105100</CardNum>
                <ExpDate>200911</ExpDate>
                <NameOnCard/>
                <BuyerAuthResult>
                  <Status>Y</Status>

<AuthenticationId>CTEremezUA7PkaDwP0Qk</AuthenticationId>
                  <ECI>5</ECI>
                  <CAVV>BwAQAJVYyYAQECQJTMnJgAAAAA= </CAVV>
                  <XID>8abmK0K1SF9OujrESKkrKkJCP4I=</XID>
                </BuyerAuthResult>
              </Card>
            </Tender>
          </PayData>
        </Authorization>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Status Request

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <GetStatus>
          <PNRef>V54A09206691</PNRef>
        </GetStatus>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Status Response

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

<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Requested</StreetMatch>
          <ZipMatch>Service Not Requested</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V54A09206691</PNRef>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```


Card Void Request

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Void>
          <PNRef>V54A09206691</PNRef>
        </Void>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

Card Void Response

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Service Not Requested</StreetMatch>
          <ZipMatch>Service Not Requested</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V54A09206748</PNRef>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

Check Sale Request

```

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay"
>  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Sale>
          <PayData>
            <Invoice>
              <InvNum>1</InvNum>
              <Date>20020208</Date>
              <BillTo>
                <Name>billtoname</Name>
                <Address>
                  <Street>street</Street>
                  <City>city</City>
                  <State>NY</State>
                  <Zip>67890</Zip>
                  <Country>US</Country>
                </Address>
                <EMail>email</EMail>
                <TaxExempt>>false</TaxExempt>
              </BillTo>
              <NationalTaxIncl>>true</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <Check>
                <CheckType>P</CheckType>
                <CheckNum>1001</CheckNum>
                <MICR>12345678904390850001001</MICR>
                <DL>CA123456</DL>
                <SS>123456789</SS>
                <DOB>19000601</DOB>
              </Check>
            </Tender>
          </PayData>
        </Sale>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>

```

```

        </UserPass>
    </RequestAuth>
</XMLPayRequest>

```

Check Sale Response

```

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

<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <TransactionResults>
            <TransactionResult>
                <Result>0</Result>
                <AVSResult>
                    <StreetMatch>Service Not Requested</StreetMatch>
                    <ZipMatch>Service Not Requested</ZipMatch>
                </AVSResult>
                <CVResult>Service Not Requested</CVResult>
                <Message>Approved</Message>
                <PNRef>VCNB01775729</PNRef>
                <OrigResult>0</OrigResult>
            </TransactionResult>
        </TransactionResults>
    </ResponseData>
</XMLPayResponse>

```

Customer IP

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <Transactions>
            <Transaction>
                <Authorization>
                    <PayData>
                        <Invoice>
                            <CustIP>192.168.100.31</CustIP>
                            <NationalTaxIncl>>false</NationalTaxIncl>
                            <TotalAmt>24.97</TotalAmt>
                        </Invoice>
                    </PayData>
                </Authorization>
                <Tender>
                    <Card>
                        <CardType>visa</CardType>
                    </Card>
                </Tender>
            </Transaction>
        </Transactions>
    </RequestData>
</XMLPayRequest>

```

```

                <CardNum>5105105105105100</CardNum>
                <ExpDate>200911</ExpDate>
            </Card>
        </Tender>
    </PayData>
</Authorization>
</Transaction>
</Transactions>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Express Checkout Authorization Transaction

Set Express Checkout Request

```

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

<XMLPayRequest Timeout="30" version="2.1">
<RequestData>
    <Vendor>Vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
        <Transaction>
            <SetExpressCheckout>
                <Authorization>
                    <PayData>
                        <Invoice>
                            <ShipTo>
                                <Address>
                                    <Street>123 4th street</Street>
                                    <City>San Jose</City>
                                    <State>CA</State>
                                    <Zip>95032</Zip>
                                    <Country>USA</Country>
                                </Address>
                            </ShipTo>
                            <TotalAmt>10.23</TotalAmt>
                            <ExtData Name="VERBOSITY" Value="HIGH"/>
                        </Invoice>
                    </PayData>
                </Authorization>
            </SetExpressCheckout>
        </Transaction>
    </Transactions>
    <Tender>
        <PayPal>

```

```

        <Email>emailname@paypal.com</Email>
        <ReturnURL>http://www.ebay.com</ReturnURL>
        <CancelURL>http://www.yahoo.com</CancelURL>
    </PayPal>
    </Tender>
    </PayData>
    </Authorization>
    </SetExpressCheckout>
</Transaction>
</Transactions>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Set Express Checkout Response

```

<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <Transaction Results>
            <TransactionResult>
                <Result>0</Result>
                <Message>Approved</Message>
                <PayPalResult>
                    <Token>EC-1R668591NV5623643</Token>
                    <FeeAmount>0</FeeAmount>
                </PayPalResult>
            </TransactionResult>
        </TransactionResults>
    </ResponseData>
</XMLPayResponse>

```

Get Express Checkout Request

```

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

<XMLPayRequest Timeout="30" version="2.0">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <Transactions>
            <Transaction>
                <GetExpressCheckout>

```

```

        <Authorization>
          <PayData>
            <Tender>
              <PayPal>
                <Token>EC-1R668591NV5623643</Token>
              </PayPal>
            </Tender>
            <Invoice>
              <ExtData Name="VERBOSITY" Value="HIGH"/>
            </Invoice>
          </PayData>
        </Authorization>
      </GetExpressCheckout>
    </Transaction>
  </Transactions>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Get Express Checkout Response

```

<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transaction Results>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Match</StreetMatch>
          <ZipMatch></ZipMatch>
        </AVSResult>
        <Message>Approved</Message>
        <PayPalResult>
          <Email>echeung-b1@paypal.com</Email>
          <PayerID>2BUBWABP28LFL</PayerID>
          <Token>EC-1R668591NV5623643</Token>
          <FeeAmount>0</FeeAmount>
          <PayerStatus>verified</PayerStatus>
          <Name>Joshua</Name>
          <ShipTo>
            <Address>
              <Company>AA Logos</Company>
              <Street>90252 Laurel Crest Drive</Street>
              <City>San Jose</City>
            </Address>
          </ShipTo>
        </PayPalResult>
      </TransactionResult>
    </Transaction Results>
  </ResponseData>
</XMLPayResponse>

```

```

        <State>CA</State>
        <Zip>95148</Zip>
        <Country>US</Country>
    </Address>
</ShipTo>
</PayPalResult>
    <ExtData Name="LASTNAME" Value="Gonzalez"></ExtData>
</TransactionResult>
</TransactionResults>
</ResponseData>
</XMLPayResponse>

```

Do Express Checkout Request

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version="2.0">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <Transactions>
            <Transaction>
                <DoExpressCheckout>
                    <Authorization>
                        <PayData>
                            <Invoice>
                                <TotalAmt Currency="840">1.23</TotalAmt>
                            </Invoice>
                            <Tender>
                                <PayPal>
                                    <Token>EC-1R668591NV5623643</Token>
                                    <PayerID>2BUBWABP28LFL</PayerID>
                                </PayPal>
                                <Invoice>
                                    <ExtData Name="VERBOSITY" Value="HIGH"/>
                                </Invoice>
                            </Tender>
                        </PayData>
                    </Authorization>
                </DoExpressCheckout>
            </Transaction>
        </Transactions>
    </RequestData>
    <RequestAuth>
        <UserPass>
            <User>user</User>
            <Password>password</Password>
        </UserPass>
    </RequestAuth>
</XMLPayRequest>

```

Do Express Checkout Response

```
<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <AVSResult>
          <StreetMatch>Match</StreetMatch>
          <ZipMatch></ZipMatch>
        </AVSResult>
        <Message>Approved</Message>
        <PNRef>EEEEPB489DB3B</PNRef>
        <PayPalResult>
          <PayerID>2BUBWABP28LFL</PayerID>
          <Token>EC-1R668591NV5623643</Token>
          <PPRef>9HG32848HD669470X</PPRef>
          <FeeAmount>0</FeeAmount>
          <PaymentType>instant</PaymentType>
          <PendingReason>authorization</PendingReason>
        </PayPalResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

IAVS Result Request

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <IAVSResult>Y</IAVSResult>
        <AVSResult>
          <StreetMatch>Service Not Available</StreetMatch>
          <ZipMatch>Service Not Available</ZipMatch>
        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V63A09910356</PNRef>
        <AuthCode>747PNI</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```



```

        </TransactionResult>
    </TransactionResults>
</ResponseData>
</XMLPayResponse>

```

Level 3 Invoice

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <NationalTaxIncl>>false</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
              <Level3Invoice>
                <CountyTax>
                  <Amount>1.23</Amount>
                </CountyTax>
              </Level3Invoice>
            </Invoice>
          <Tender>
            <Card>
              <CardType>visa</CardType>
              <CardType>Switch</CardType>
              <CardNum>5105105105105100</CardNum>
              <ExpDate>200911</ExpDate>
              <NameOnCard/>
            </Card>
          </Tender>
        </PayData>
      </Authorization>
    </Transaction>
  </Transactions>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Line Item Sale Request

```

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">  <RequestData>
  <Vendor>vendor</Vendor>
  <Partner>partner</Partner>
  <Transactions>
    <Transaction>
      <Sale>
        <PayData>
          <Invoice>
            <BillTo>
              <Name>billtoname</Name>
              <Address>
                <Street>street</Street>
                <City>city</City>
                <State>NY</State>
                <Zip>67890</Zip>
                <Country>US</Country>
              </Address>
              <EMail>email</EMail>
              <Phone>1234567890</Phone>
              <Fax>9876543210</Fax>
              <CustCode>custcode</CustCode>
              <PONum>123456</PONum>
              <TaxExempt>>false</TaxExempt>
            </BillTo>
            <Items>
              <Item Number="1">
                <SKU>1111</SKU>
                <UPC>9999</UPC>
                <Description>Widget</Description>
                <Quantity>2</Quantity>
                <UnitOfMeasurement>INQ</UnitOfMeasurement>
                <UnitPrice>49.99</UnitPrice>
                <DiscountAmt>9.98</DiscountAmt>
                <FreightAmt>3.00</FreightAmt>
                <HandlingAmt>8.00</HandlingAmt>
                <TotalAmt>101.00</TotalAmt>
                <PickUp>
                  <Address>
                    <Street>500 Main St.</Street>
                    <City>Anytown</City>
                    <State>NY</State>
                    <Zip>67890</Zip>
                    <Country>US</Country>
                  </Address>
                  <Time>15:30</Time>
                </PickUp>
              </Item>
            </Items>
          </Sale>
        </PayData>
      </Transaction>
    </Transactions>
  </RequestData>
</XMLPayRequest>

```

```
<Date>20030630</Date>
  <RecordNumber>24680</RecordNumber>
</PickUp>
<TrackingNumber>ABC0123</TrackingNumber>
<Delivery>
  <Date>20030714</Date>
  <Time>12:00</Time>
</Delivery>
  <UNSPSCCode>54.10.15.05</UNSPSCCode>
</Item>
<Item Number="2">
  <SKU>2222</SKU>
  <UPC>8888</UPC>
  <Description>Gizmo</Description>
  <Quantity>5</Quantity>
  <UnitOfMeasurement>INQ</UnitOfMeasurement>
  <UnitPrice>9.99</UnitPrice>
  <DiscountAmt>2.50</DiscountAmt>
  <FreightAmt>3.00</FreightAmt>
  <HandlingAmt>2.50</HandlingAmt>
  <TotalAmt>52.95</TotalAmt>
  <PickUp>
    <Address>
      <Street>500 Main St.</Street>
      <City>Anytown</City>
      <State>NY</State>
      <Zip>67890</Zip>
      <Country>US</Country>
    </Address>
    <Time>09:00</Time>
    <Date>20030628</Date>
    <RecordNumber>13579</RecordNumber>
  </PickUp>
  <TrackingNumber>XYZ7890</TrackingNumber>
  <Delivery>
    <Date>20030711</Date>
    <Time>09:00</Time>
  </Delivery>
  <UNSPSCCode>54.10.16.05</UNSPSCCode>
</Item>
</Items>
<TaxAmt>13.47</TaxAmt>
<NationalTaxIncl>false</NationalTaxIncl>
<TotalAmt>167.42</TotalAmt>
</Invoice>
<Tender>
  <Card>
    <CardType>mastercard</CardType>
    <CardNum>5105105105105100</CardNum>
    <ExpDate>200912</ExpDate>
  </Card>
```

```

        </Tender>
    </PayData>
</Sale>
</Transaction>
/Transactions>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Line Item Sale Response

```

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

<XMLPayResponse xmlns="http://www.paypal.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <TransactionResults>
            <TransactionResult>
                <Result>0</Result>
                <AVSResult>
                    <StreetMatch>Match</StreetMatch>
                    <ZipMatch>Match</ZipMatch>
                </AVSResult>
                <CVResult>Service Not Requested</CVResult>
                <Message>Approved</Message>
                <PNRef>VTHA55395881</PNRef>
                <AuthCode>624PNI</AuthCode>
                <HostCode>00</HostCode>
                <OrigResult>0</OrigResult>
            </TransactionResult>
        </TransactionResults>
    </ResponseData>
</XMLPayResponse>

```

Merchant Description and Merchant Service Number

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
    </RequestData>

```

```

<Transactions>
  <Transaction>
    <Authorization>
      <PayData>
        <Invoice>
          <MerchantDescription></MerchantDescription>
          <MerchantServiceNum></MerchantServiceNum>
          <NationalTaxIncl>false</NationalTaxIncl>
          <TotalAmt>24.97</TotalAmt>
        </Invoice>
        <Tender>
          <Card>
            <CardType>visa</CardType>
            <CardNum>5105105105100</CardNum>
            <ExpDate>200911</ExpDate>
            <NameOnCard/>
          </Card>
        </Tender>
      </PayData>
    </Authorization>
  </Transaction>
</Transactions>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Processor Result

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <ProcessorResult>
          <AVSResult>Z</AVSResult>
          <CVResult>T</CVResult>
          <STAN>13523</STAN>
        </ProcessorResult>
        <AVSResult>
          <StreetMatch>Service Not Available</StreetMatch>
          <ZipMatch>Service Not Available</ZipMatch>
        </AVSResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>

```

```

        </AVSResult>
        <CVResult>Service Not Requested</CVResult>
        <Message>Approved</Message>
        <PNRef>V63A09910356</PNRef>
        <AuthCode>747PNI</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
    </TransactionResult>
</TransactionResults>
</ResponseData>
</XMLPayResponse>

```

Recurring Billing Profile

This section includes a sample ACH recurring billing profile and a sample credit card billing profile

ACH Recurring Billing Profile

```

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

<XMLPayRequest Timeout="30" version = "2.0" >
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <RecurringProfiles>
      <RecurringProfile Id = "10001">
        <Add>
          <Tender>
            <ACH>
              <AcctType>C</AcctType>
              <AcctNum>5105105105105100</AcctNum>
              <ABA>091000019</ABA>
            </ACH>
          </Tender>
          <RPData>
            <Name>Test Profile</Name>
            <TotalAmt>1.23</TotalAmt>
            <Start>03042004</Start>
            <Term>12</Term>
            <PayPeriod>Weekly</PayPeriod>
            <EMail>a.com</EMail>
            <BillTo>
              <Address>
                <Street>123 4th street</Street>
                <City>San Jose</City>
                <State>CA</State>
                <Zip>95032</Zip>
              </Address>
            </BillTo>
          </RPData>
        </Add>
      </RecurringProfile>
    </RecurringProfiles>
  </RequestData>
</XMLPayRequest>

```

```
                <Country>USA</Country>
            </Address>
        </BillTo>
    </RPData>
</Add>
</RecurringProfile>
</RecurringProfiles>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>v3test</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>
```

Credit Card Recurring Billing Profile

Payflow XML does not parse certain name-value pair (NVP) tags. For example, to pass a value for the CURRENCY tag, which is not supported, you must pass it as extended data (ExtData) as shown below.

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

<XMLPayRequest Timeout="30" version="2.0">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <RecurringProfiles>
            <RecurringProfile Id="1">
                <Add>
                    <Tender>
                        <Card>
                            <CardNum>5105105105105100</CardNum>
                            <ExpDate>200803</ExpDate>
                            <NameOnCard>name</NameOnCard>
                        </Card>
                    </Tender>
                </RPData>
                    <Name>Test Profile</Name>
                    <ExtData Name="CURRENCY" Value="EUR"></ExtData>
                    <TotalAmt>1.23</TotalAmt>
                    <Start>12122004</Start>
                    <Term>12</Term>
                    <PayPeriod>Weekly</PayPeriod>
                    <EMail>a.com</EMail>
                    <OptionalTrans>Sale</OptionalTrans>
                    <OptionalTransAmt>12</OptionalTransAmt>
                <BillTo>
                    <Address>
```

```

        <Street>123 4th street</Street>
        <City>San Jose</City>
        <State>CA</State>
        <Zip>95032</Zip>
    </Address>
</BillTo>
</RPData>
</Add>
</RecurringProfile>
</RecurringProfiles>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Shipping Carrier and Shipping Method

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.paypal.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>partner</Partner>
        <Transactions>
            <Transaction>
                <Authorization>
                    <PayData>
                        <Invoice>
                            <ShipCarrier>UPS</ShipCarrier>
                            <ShipMethod>Next Day</ShipMethod>
                            <NationalTaxIncl>>false</NationalTaxIncl>
                            <TotalAmt>24.97</TotalAmt>
                        </Invoice>
                        <Tender>
                            <Card>
                                <CardType>visa</CardType>
                                <CardNum>5105105105105100</CardNum>
                                <ExpDate>200911</ExpDate>
                                <NameOnCard/>
                            </Card>
                        </Tender>
                    </PayData>
                </Authorization>
            </Transaction>
        </Transactions>
    </RequestData>

```



```

</RequestData>
<RequestAuth>
  <UserPass>
    <User>user</User>
    <Password>password</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>

```

Transaction Update

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="40" xmlns="http://www.paypal.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <TransactionUpdate>
          <PNRef>V53A12345678</PNRef>
          <Action> Approve</Action>
        </TransactionUpdate>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>

```

```

<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <Message>Approved</Message>
        <PNRef>V63A09910356</PNRef>
        <AuthCode>747PNI</AuthCode>
        <HostCode>00</HostCode>
        <OrigResult>0</OrigResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>

```

```
</XMLPayResponse>
```

ValidateAuthentication Request

```
<?xml version="1.0"?>

<XMLPayRequest>
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <ValidateAuthentication>
          <PAREs>pares bloc</PAREs>
        </ValidateAuthentication>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

ValidateAuthentication Response

```
<?xml version="1.0"?>

<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <TransactionResults>
      <TransactionResult>
        <Result>0</Result>
        <Message>OK</Message>
        <BuyerAuthResult>
          <Status>Y</Status>
          <AuthenticationId>CTEremezUA7PkaDwP0Qk</AuthenticationId>
          <ECI>5</ECI>
          <CAVV>BwAQAJVyYAQECQJTMnJgAAAAAAA=</CAVV>
          <XID>8abmK0K1Sf9OujrESKkrKkJCP4I=</XID>
        </BuyerAuthResult>
      </TransactionResult>
    </TransactionResults>
  </ResponseData>
</XMLPayResponse>
```

```
        </TransactionResults>
    </ResponseData>
</XMLPayResponse>
```

VerifyEnrollment Request

```
<?xml version="1.0"?>

<XMLPayRequest>
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
    <Transactions>
      <Transaction>
        <VerifyEnrollment>
          <PayData>
            <Invoice>
              <TotalAmt Currency = "840">12.16</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardNum>4000000000000002</CardNum>
                <ExpDate>200411</ExpDate>
              </Card>
            </Tender>
          </PayData>
        </VerifyEnrollment>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>assword</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

VerifyEnrollment Response

```
<?xml version="1.0"?>

<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>partner</Partner>
```

```
<TransactionResults>
  <TransactionResult>
    <Result>0</Result>
    <Message>OK</Message>
    <BuyerAuthResult>
      <Status>E</Status>
      <AuthenticationId>CTEremezUA7PkaDwP0Qk</AuthenticationId>
      <PAREq>pareq bloc</PAREq>
      <ACSUrl>https://bankacs.bank.com/ascurl</ACSUrl>
      <ECI>7</ECI>
    </BuyerAuthResult>
  </TransactionResult>
</TransactionResults>
</ResponseData>
</XMLPayResponse>
```

A

XMLPay Schemas

This appendix contains the XMLPay schema.

NOTE: The **RepeatSale** element is defined, but not supported.

XMLPay Schema

```
<?xml version = "1.0"?>
<schema targetNamespace = "http://www.paypal.com/XMLPay"
= 'unqualified'
= 'unqualified'
= "http://www.w3.org/1999/XMLSchema">

<include schemaLocation = "XMLPayTypes.xsd"/>

<element name = "XMLPayRequest">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "RequestData"/>
      <element ref = "RequestAuth"/>
    </sequence>
    <attribute name = "version" type = "string" />
    <attribute name = "request_id" type = "string" />
    <attribute name = "response_id" type = "string" />
    <attribute name = "Timeout" type = "int" />
  </complexType>
</element>

<element name = "VersionIntegrationTracking">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "IntegrationType" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "IntegrationVersion" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "WrapperType" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "WrapperVersion" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "OSName" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "OSArchitecture" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "OSVersion" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "JavaVersion" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Proxy" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "RequestData">
  <complexType content = "elementOnly">
    <sequence>
```

```

    <element name = "Vendor" type = "UserIdType"/>
    <element name = "Partner" type = "UserIdType"/>
    <choice>
      <element name = "Transactions">
        <complexType content = "elementOnly">
          <element ref = "Transaction" minOccurs = "1" maxOccurs = "unbounded" />
        </complexType>
      </element>
      <element name = "RecurringProfiles">
        <complexType content = "elementOnly">
          <element ref = "RecurringProfile" minOccurs = "1" maxOccurs = "unbounded"
/>
      </complexType>
    </element>
    <element name = "AccountUpdateRequests">
      <complexType content = "elementOnly">
        <element ref = "AccountUpdateRequest" minOccurs = "1" maxOccurs =
"unbounded" />
      </complexType>
    </element>
  </choice>
  <element ref = "VersionIntegrationTracking" minOccurs = "0" maxOccurs = "1"/>
</sequence>
</complexType>
</element>

<element name = "RequestAuth">
  <complexType content = "elementOnly">
    <choice>
      <element ref = "UserPass"/>
      <element ref = "Signature"/>
    </choice>
  </complexType>
</element>

<element name = "XMLPayResponse">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "ResponseData"/>
      <element ref = "Signature" minOccurs = "0" maxOccurs = "1"/>
      <element name = "TransactionReceipts" minOccurs = "0" maxOccurs = "1">
        <complexType content = "elementOnly">
          <element ref = "XMLPayReceipt" minOccurs = "1" maxOccurs = "unbounded"/>
        </complexType>
      </element>
    </sequence>
    <attribute name = "xmlns" type = "string" />
    <attribute name = "version" type = "string" />
    <attribute name = "request_id" type = "string" />
    <attribute name = "response_id" type = "string" />
  </complexType>
</element>

<element name = "ResponseData">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "Vendor" type = "UserIdType"/>
      <element name = "Partner" type = "UserIdType"/>

```

```
<choice>
  <element name = "TransactionResults">
    <complexType content = "elementOnly">
      <element ref = "TransactionResult" minOccurs = "1" maxOccurs =
"unbounded"/>
    </complexType>
  </element>
  <element name = "RecurringProfileResults">
    <complexType content = "elementOnly">
      <element ref = "RecurringProfileResult" minOccurs = "1" maxOccurs =
"unbounded"/>
    </complexType>
  </element>
  <element name = "AccountUpdateResults">
    <complexType content = "elementOnly">
      <element ref = "AccountUpdateResult" minOccurs = "1" maxOccurs =
"unbounded"/>
    </complexType>
  </element>
  <element name = "HTTPCommitResults">
    <complexType content = "elementOnly">
      <element ref = "HTTPCommitResult" minOccurs = "1" maxOccurs = "unbounded"/>
    </complexType>
  </element>
</choice>
</sequence>
</complexType>
</element>

<element name = "XMLPayReceipt">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "ReceiptData" />
      <element ref = "Signature" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
  </complexType>
</element>

<element name = "ReceiptData">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "Vendor" type = "UserIdType"/>
      <element name = "Partner" type = "UserIdType"/>
      <element ref = "Transaction"/>
      <element ref = "TransactionResult"/>
    </sequence>
  </complexType>
</element>

<element name = "Transaction">
  <complexType content = "elementOnly">
    <sequence>
      <choice>
        <element ref = "Authorization"/>
        <element ref = "Capture"/>
        <element ref = "Sale"/>
        <element ref = "Credit"/>
        <element ref = "Void"/>
      </choice>
    </sequence>
  </complexType>
</element>
```

```

        <element ref = "ForceCapture"/>
        <element ref = "RepeatSale"/>
        <element ref = "GetStatus"/>
        <element ref = "VerifyEnrollment"/>
        <element ref = "ValidateAuthentication"/>
        <element ref = "TransactionUpdate"/>
        <element ref = "SetExpressCheckout"/>
        <element ref = "GetExpressCheckout"/>
        <element ref = "DoExpressCheckout"/>
    </choice>
</sequence>
<attribute name = "Id" type = "ID"/>
<attribute name = "CustRef" type = "ReferenceIdType"/>
<element name = "Verbosity" type = "VerbosityEnum" minOccurs = "0" maxOccurs = "1"/>
<element name = "BrowserUserAgent" type = "string" minOccurs = "0" maxOccurs = "1"/>
<element name = "BrowserTime" type = "string" minOccurs = "0" maxOccurs = "1"/>
<element name = "BrowserCountryCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
</complexType>
</element>

<simpleType name = "VerbosityEnum" base = "string">
    <enumeration value = "Off"/>
    <enumeration value = "Low"/>
    <enumeration value = "Medium"/>
    <enumeration value = "High"/>
</simpleType>

<element name = "Authorization">
    <complexType content = "elementOnly">
        <sequence>
            <element ref = "PayData"/>
            <element ref = "PayDataAuth" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "Capture">
    <complexType content = "elementOnly">
        <sequence>
            <choice>
                <element name = "PNRef" type = "PNRefType"/>
                <element name = "PPRef" type = "PPRefType"/>
            </choice>
            <element ref = "Invoice" minOccurs="0" maxOccurs="1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "Sale">
    <complexType content = "elementOnly">
        <sequence>
            <element ref = "PayData"/>
            <element ref = "PayDataAuth" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>

```



```
</element>

<element name = "Credit">
  <complexType content = "elementOnly">
    <sequence>
      <choice>
        <element name = "PNRef" type = "PNRefType"/>
        <element name = "PPRef" type = "PPRefType"/>
        <element ref = "Tender"/>
      </choice>
      <element ref = "Invoice" minOccurs="0" maxOccurs="1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "Void">
  <complexType content = "elementOnly">
    <sequence>
      <choice>
        <element name = "PNRef" type = "PNRefType"/>
        <element name = "PPRef" type = "PPRefType"/>
      </choice>
      <element name = "Note" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "ForceCapture">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "PayData"/>
      <element ref = "PayDataAuth" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AuthCode" type = "AuthCodeType"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "RepeatSale">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "PNRef" type = "PNRefType"/>
      <element ref = "Invoice" minOccurs="0" maxOccurs="1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "GetStatus">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "PNRef" type = "PNRefType"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>
```

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<element name = "VerifyEnrollment">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "PayData"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "ValidateAuthentication">
  <complexType content = "elementOnly">
    <sequence>
      <element name= "PAREs" type="BuyerAuthMesgType"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "AccountUpdateRequest">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "Action" type = "AUActionEnum"/>
      <choice>
        <element name = "PNRef" type = "PNRefType"/>
        <element ref = "Tender"/>
      </choice>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<simpleType name = "TransactionUpdateActionEnum" base = "string">
  <enumeration value = "Approve"/>
  <enumeration value = "Review"/>
  <enumeration value = "ServiceDecline"/>
  <enumeration value = "MerchantDecline"/>
</simpleType>

<element name = "TransactionUpdate">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "PNRef" type = "PNRefType"/>
      <element name = "Action" type = "TransactionUpdateActionEnum"/>
      <element name = "RMSID" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "SetExpressCheckout">
  <complexType content = "elementOnly">
    <sequence>
      <choice>
        <element ref = "Authorization"/>
        <element ref = "Sale"/>
      </choice>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

```

```
        </sequence>
    </complexType>
</element>

<element name = "GetExpressCheckout">
    <complexType content = "elementOnly">
        <sequence>
            <choice>
                <element ref = "Authorization"/>
                <element ref = "Sale"/>
            </choice>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "DoExpressCheckout">
    <complexType content = "elementOnly">
        <sequence>
            <choice>
                <element ref = "Authorization"/>
                <element ref = "Sale"/>
            </choice>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "FraudPreprocessResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Message" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "XMLData" type = "string" minOccurs = "0" maxOccurs = "1"/>
        </sequence>
    </complexType>
</element>

<element name = "FraudPostprocessResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Message" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "XMLData" type = "string" minOccurs = "0" maxOccurs = "1"/>
        </sequence>
    </complexType>
</element>

<element name = "ProcessorResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "AVSResult" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CVResult" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CardSecure" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "ResponseText" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "AdditionalMessages" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "SettleDate" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "STAN" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "RRN" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "HostCode" type = "HostCodeType" minOccurs="0" maxOccurs="1"/>
        </sequence>
    </complexType>
</element>
```

```

        <element name = "HostResponse" type = "string" minOccurs="0" maxOccurs="1"/>
        <element name = "AMEXID" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "BalanceAmount" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
</complexType>
</element>

<element name = "TransactionResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Result" type = "int"/>
            <element ref = "BuyerAuthResult" minOccurs="0" maxOccurs="1"/>
            <element ref = "ProcessorResult" minOccurs="0" maxOccurs="1"/>
            <element ref = "FraudPreprocessResult" minOccurs="0" maxOccurs="1"/>
            <element ref = "FraudPostprocessResult" minOccurs="0" maxOccurs="1"/>
            <element name = "CardSecure" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "IAVResult" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "AVSResult" minOccurs="0" maxOccurs="1"/>
            <element name = "CVResult" type = "MatchResultEnum" minOccurs="0" maxOccurs="1"/>
            <element name = "Message" type = "string" minOccurs="0" maxOccurs="1"/>
            <element name = "PNRef" type = "PNRefType" minOccurs="0" maxOccurs="1"/>
            <element name = "AuthCode" type = "AuthCodeType" minOccurs="0" maxOccurs="1"/>
            <element name = "HostCode" type = "HostCodeType" minOccurs="0" maxOccurs="1"/>
            <element name = "HostURL" type = "uriReference" minOccurs="0" maxOccurs="1"/>
            <element name = "OrigResult" type = "byte" minOccurs="0" maxOccurs="1"/>
            <element name = "TrStatus" type = "StatusType" minOccurs="0" maxOccurs="1"/>
            <element name = "ReceiptURL" type = "uriReference" minOccurs="0" maxOccurs="1"/>
            <element name = "ACHStatus" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "OrigPNRef" type = "PNRefType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "OrigMessage" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "PayPalResult" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
        <attribute name = "Id" type = "ID" />
        <attribute name = "CustRef" type = "ReferenceIdType"/>
        <attribute name = "Duplicate" type = "boolean"/>
    </complexType>
</element>

<element name = "PayPalResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "PayerID" type = "PayerIDType" minOccurs="0" maxOccurs="1"/>
            <element name = "Token" type = "ECTokenType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "PPRef" type = "PPRefType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "FeeAmount" type = "int"/>
            <element name = "PayerStatus" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "PaymentType" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "PendingReason" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "Custom" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "InvNum" type = "InvNumType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "Name" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "ShipTo" minOccurs = "0" maxOccurs = "1">
                <complexType content = "elementOnly">
                    <element ref = "Address"/>
                </complexType>
            </element>
        </sequence>
    </complexType>
</element>

```

```
        </complexType>
    </element>
    <element name = "CorrelationID" type = "CorrelationIDType" minOccurs = "0" maxOccurs =
"1"/>
    </sequence>
</complexType>
</element>

<element name = "AccountUpdateResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Result" type = "int"/>
            <element name = "Message" type = "string"/>
            <element name = "PNRef" type = "PNRefType"/>
            <element name = "AUResponseCode" type = "AUResponseCode"/>
            <element name = "AUResponseText" type = "AUResponseText"/>
            <element name = "AUSubmitDate" type = "date" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "HTTPCommitResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Result" type = "int"/>
            <element name = "Message" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<element name = "BuyerAuthResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Status" type = "BuyerAuthStatusEnum"/>
            <element name = "AuthenticationId" type = "Base64Sha1StringType" minOccurs="0"
maxOccurs="1"/>
            <element name = "PAREq" type = "BuyerAuthMesgType" minOccurs="0" maxOccurs="1" />
            <element name = "ACSUrl" type = "uriReference" minOccurs="0" maxOccurs="1" />
            <element name = "ECI" type = "ECIType" minOccurs="0" maxOccurs="1" />
            <element name = "CAVV" type = "Base64Sha1StringType" minOccurs="0" maxOccurs="1" />
            <element name = "XID" type = "Base64Sha1StringType" minOccurs="0" maxOccurs="1" />
        </sequence>
    </complexType>
</element>

<simpleType name = "BuyerAuthStatusEnum" base = "string">
    <enumeration value = "E"/>
    <enumeration value = "O"/>
    <enumeration value = "X"/>
    <enumeration value = "I"/>
    <enumeration value = "Y"/>
    <enumeration value = "A"/>
    <enumeration value = "U"/>
    <enumeration value = "N"/>
    <enumeration value = "F"/>
</simpleType>
```

```

</simpleType>

<element name = "AVSResult">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "StreetMatch" type = "MatchResultEnum"/>
      <element name = "ZipMatch" type = "MatchResultEnum"/>
    </sequence>
  </complexType>
</element>

<simpleType name = "AuthCodeType" base = "string">
  <maxLength value = "6"/>
</simpleType>

<simpleType name = "HostCodeType" base = "string">
  <maxLength value = "6"/>
</simpleType>

<simpleType name = "StatusType" base = "string">
  <maxLength value = "3"/>
</simpleType>

<simpleType name = "MatchResultEnum" base = "string">
  <enumeration value = "Match"/>
  <enumeration value = "No Match"/>
  <enumeration value = "Service Not Available"/>
  <enumeration value = "Service Not Requested"/>
</simpleType>

<element name = "UserPass">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "User" type = "UserIdType"/>
      <element name = "UserDomain" type = "UserIdType" minOccurs="0" maxOccurs="1"/>
      <element name = "Password" type = "PasswordType"/>
    </sequence>
  </complexType>
</element>

<element name = "RecurringProfile">
  <complexType content = "elementOnly">
    <sequence>
      <choice>
        <element ref = "Add"/>
        <element ref = "Modify"/>
        <element ref = "Cancel"/>
        <element ref = "Reactivate"/>
        <element ref = "Payment"/>
        <element ref = "Inquiry"/>
      </choice>
    </sequence>
    <attribute name = "Id" type = "ID"/>
  </complexType>
</element>

<element name = "Add">
  <complexType content = "elementOnly">

```

```
        <sequence>
            <element ref = "RPData"/>
            <element ref = "Tender"/>
        </sequence>
    </complexType>
</element>

<element name = "Modify">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "ProfileID" type = "ProfileIDType"/>
            <element ref = "RPData" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
        </sequence>
    </complexType>
</element>

<element name = "Cancel">
    <complexType content = "elementOnly">
        <element name = "ProfileID" type = "ProfileIDType"/>
    </complexType>
</element>

<element name = "Reactivate">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "ProfileID" type = "ProfileIDType"/>
            <element ref = "RPData" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
        </sequence>
    </complexType>
</element>

<element name = "Payment">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "ProfileID" type = "ProfileIDType"/>
            <element ref = "RPData" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
        </sequence>
    </complexType>
</element>

<element name = "Inquiry">
    <complexType content = "elementOnly">
        <element name = "ProfileID" type = "ProfileIDType"/>
        <element name = "PaymentHistory" type = "string" minOccurs="0" maxOccurs="1"/>
    </complexType>
</element>

<element name = "RPData">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Name" type = "RPNameType" minOccurs="0" maxOccurs="1"/>
            <element name = "TotalAmt" type = "CurrencyAmount" minOccurs="0" maxOccurs="1"/>
            <element name = "Start" type = "RPDateType" minOccurs="0" maxOccurs="1"/>
            <element name = "Term" type = "int" minOccurs="0" maxOccurs="1"/>
            <element name = "PayPeriod" type = "PayPeriodType" minOccurs="0" maxOccurs="1"/>
        </sequence>
    </complexType>
</element>
```

```

        <element name = "MaxFailPayments" type = "int" minOccurs="0" maxOccurs="1"/>
        <element name = "RetryNumDays" type = "int" minOccurs="0" maxOccurs="1"/>
        <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
        <element name = "CompanyName" type = "CompanyNameType" minOccurs="0" maxOccurs="1"/>
        <element name = "Comment" type = "CommentType" minOccurs = "0" maxOccurs = "1"/>
        <element name = "OptionalTrans" type = "OptionalTransType" minOccurs="0"
maxOccurs="1"/>
        <element name = "OptionalTransAmt" type = "CurrencyAmount" minOccurs="0"
maxOccurs="1"/>
        <element name = "BillTo" minOccurs = "0" maxOccurs = "1">
            <complexType content = "elementOnly">
                <element name = "Name" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
                <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
                <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
                <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
            </complexType>
        </element>
        <element name = "ShipTo" minOccurs = "0" maxOccurs = "1">
            <complexType content = "elementOnly">
                <element name = "Name" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
                <element ref = "Address"/>
                <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
                <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
            </complexType>
        </element>
        <element name = "OrigProfileID" type = "ProfileIDType" minOccurs="0" maxOccurs="1"/>
        <element name = "PaymentNum" type = "int" minOccurs="0" maxOccurs="1"/>
        <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
</complexType>
</element>

<element name = "RPPaymentResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "PaymentNum" type = "int"/>
            <element name = "PNRef" type = "PNRefType" minOccurs="0" maxOccurs="1"/>
            <element name = "TransTime" type = "dateTime" minOccurs="0" maxOccurs="1"/>
            <element name = "Result" type = "int"/>
            <element name = "Tender" type = "TenderTypeEnum" minOccurs = "0" maxOccurs = "1"/>
            <element name = "Amt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
            <element name = "TransState" type = "string" minOccurs="0" maxOccurs="1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
        <attribute name = "Id" type = "ID"/>
    </complexType>
</element>

<element name = "RecurringProfileResult">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "Result" type = "int"/>
            <element name = "Message" type = "string" minOccurs="0" maxOccurs="1"/>
            <element name = "ProfileID" type = "ProfileIDType" minOccurs="0" maxOccurs="1"/>

```



```

<element name = "RPref" type = "RPrefType" minOccurs="0" maxOccurs="1"/>
<element name = "Status" type = "RPStatusType" minOccurs = "0" maxOccurs = "1"/>
<element name = "Name" type = "RPNameType" minOccurs="0" maxOccurs="1"/>
<element name = "Start" type = "RPDateType" minOccurs="0" maxOccurs="1"/>
<element name = "Term" type = "int" minOccurs="0" maxOccurs="1"/>
<element name = "End" type = "RPDateType" minOccurs="0" maxOccurs="1"/>
<element name = "PayPeriod" type = "PayPeriodType" minOccurs="0" maxOccurs="1"/>
<element name = "MaxFailPayments" type = "int" minOccurs="0" maxOccurs="1"/>
<element name = "RetryNumDays" type = "int" minOccurs="0" maxOccurs="1"/>
<element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
<element name = "CompanyName" type = "CompanyNameType" minOccurs="0" maxOccurs="1"/>
<element name = "Amt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
<element name = "PaymentsLeft" type = "int" minOccurs = "0" maxOccurs = "1"/>
<element name = "NextPayment" type = "RPDateType" minOccurs = "0" maxOccurs = "1"/>
<element name = "AggregateAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs =
"1"/>
<element name = "AggregateOptionalTransAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "1"/>
<element name = "NumFailedPayments" type = "int" minOccurs = "0" maxOccurs = "1"/>
<element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
<element name = "BillTo" minOccurs = "0" maxOccurs = "1">
  <complexType content = "elementOnly">
    <element name = "Name" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
    <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
    <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
  </complexType>
</element>
<element name = "ShipTo" minOccurs = "0" maxOccurs = "1">
  <complexType content = "elementOnly">
    <element name = "Name" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
    <element ref = "Address"/>
    <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
  </complexType>
</element>
<element ref = "TransactionResult" minOccurs = "0" maxOccurs = "1"/>
<element ref = "RPPaymentResult" minOccurs = "0" maxOccurs = "unbounded"/>
<element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
</sequence>
<attribute name = "Id" type = "ID"/>
</complexType>
</element>
<simpleType name = "ProfileIDType" base = "string">
  <maxLength value = "12"/>
</simpleType>
<simpleType name = "RPNameType" base = "string">
  <maxLength value = "128"/>
</simpleType>
<simpleType name = "RPDateType" base = "string">
  <maxLength value = "6"/>

```

```

</simpleType>

<simpleType name = "PayPeriodType" base = "string">
  <enumeration value = "Weekly"/>
  <enumeration value = "Bi-weekly"/>
  <enumeration value = "Semi-monthly"/>
  <enumeration value = "Every four weeks"/>
  <enumeration value = "Monthly"/>
  <enumeration value = "Quarterly"/>
  <enumeration value = "Semi-yearly"/>
  <enumeration value = "Yearly"/>
</simpleType>

<simpleType name = "CompanyNameType" base = "string">
  <maxLength value = "127"/>
</simpleType>

<simpleType name = "OptionalTransType" base = "string">
  <enumeration value = "Auth"/>
  <enumeration value = "Sale"/>
</simpleType>

<simpleType name = "RPreftype" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "RPStatusType" base = "string">
</simpleType>

</schema>

```

XMLPay Types Schema

```

<?xml version = "1.0"?>
<schema targetNamespace = "http://www.paypal.com/XMLPay"
  = 'unqualified'
  = 'unqualified'
  = "http://www.w3.org/1999/XMLSchema">

  <!-- stub out xmldsig
  <import schemaLocation = "xmldsig-core-schema.xsd"/>
  -->
  <element name = "Signature">
    <complexType base = "string" content = "elementOnly">
      <any/>
    </complexType>
  </element>

  <element name = "PayData">
    <complexType content = "elementOnly">
      <sequence>
        <element ref = "Invoice"/>
        <element ref = "Tender"/>
      </sequence>
    </complexType>

```

```
</element>

<element name = "PayDataAuth">
  <complexType content = "elementOnly">
    <choice>
      <element name = "PKCS7Signature" type = "Base64BinaryData"/>
      <element ref = "Signature"/>
    </choice>
  </complexType>
</element>

<element name = "Invoice">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "CustIP" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "MerchantDescription" type = "string" minOccurs = "0" maxOccurs =
"1"/>
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      <element name = "Recurring" type = "boolean" minOccurs = "0" maxOccurs = "1"/>
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          <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
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"1"/>
          <element name = "URL" type = "uriReference" minOccurs = "0" maxOccurs = "1"/>
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      <element name = "BillTo" minOccurs = "0" maxOccurs = "1">
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"1"/>
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"1"/>
          <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
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"1"/>
          <element name = "PONum" type = "PONumType" minOccurs = "0" maxOccurs = "1"/>
          <element name = "TaxExempt" type = "boolean" minOccurs = "0" maxOccurs = "1"/>
          <element name = "PhoneType" type = "string" minOccurs = "0" maxOccurs = "1"/>
        </complexType>
      </element>
    </sequence>
  </complexType>
</element>
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<element name = "ShipMethod" type = "string" minOccurs = "0" maxOccurs = "1"/>

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    <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
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    <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
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"1"/>
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</element>

<element name = "ShipTo" minOccurs = "0" maxOccurs = "1">
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</element>

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  </complexType>
</element>
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"1"/>
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<element name = "TaxAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
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<element name = "TotalAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
<element name = "FreightAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs="1"/>
<element name = "HandlingAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs="1"/>
<element name = "ItemAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs="1"/>
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  <element ref = "Level3Invoice" minOccurs = "0" maxOccurs = "1"/>
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<element name = "Custom" type = "string" minOccurs="0" maxOccurs="1"/>
<element name = "OrderDesc" type = "string" minOccurs="0" maxOccurs="1"/>
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</element>

<element name = "MerchantInfo">
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        <element name = "MerchantCity" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "MerchantState" type = "string" minOccurs = "0" maxOccurs = "1"/>
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        <element name = "MerchantZip" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>

<element name = "Level3Invoice">
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"1"/>
                    <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
                    <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
                </complexType>
            </element>
            <element name = "AlternateTaxAmount" type = "CurrencyAmount" minOccurs = "0" maxOccurs
= "1"/>
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            <element name = "CardIssue" type = "string" minOccurs = "0" maxOccurs = "1"/>
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"1"/>
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                    <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
                </complexType>
            </element>
        </sequence>
    </complexType>
</element>
```

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        </complexType>
    </element>
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"1">
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"1"/>
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    </element>
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"1"/>
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    </element>
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maxOccurs = "1"/>
    <element name = "CommCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
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"1"/>
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= "1"/>
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"1"/>
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    </element>
    <element name = "NationalTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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"1"/>
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"1"/>
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        <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>
<element name = "StateSalesTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
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        <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>
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        <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>
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        <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>
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</element>
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"1"/>
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        <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>
<element name = "ValueAddedTaxRegNum" type = "string" minOccurs = "0" maxOccurs =
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</sequence>
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    </complexType>
  </element>

  <element name = "Level3Item">
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            <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
          </complexType>
        </element>
        <element name = "CityTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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            <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
          </complexType>
        </element>
        <element name = "CountySalesTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
          <complexType content = "elementOnly">
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"1"/>
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            <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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        </element>
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"1"/>
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            <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
          </complexType>
        </element>
        <element name = "EnvironmentalTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
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"1"/>
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            <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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          </complexType>
        </element>
        <element name = "StateAndLocalTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">

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    <complexType content = "elementOnly">
      <element name = "Amount" type = "CurrencyAmount" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
  </element>
  <element name = "StateTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
    <complexType content = "elementOnly">
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      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
  </element>
  <element name = "StateGoodsTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
    <complexType content = "elementOnly">
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"1"/>
      <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
  </element>
  <element name = "StateSalesTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
    <complexType content = "elementOnly">
      <element name = "Amount" type = "CurrencyAmount" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
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  </element>
  <element name = "StateServicesTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
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      <element name = "Amount" type = "CurrencyAmount" minOccurs = "0" maxOccurs =
"1"/>
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      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
  </element>
  <element name = "ValueAddedTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
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"1"/>
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      <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
  </element>
  <element name = "TaxType" type = "string" minOccurs = "0" maxOccurs = "1"/>
  <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
</sequence>
</complexType>
</element>

<element name = "PickUp">
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    <complexType content = "elementOnly">
      <sequence>
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        <element name = "Time" type = "time" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Date" type = "date" minOccurs = "0" maxOccurs = "1"/>
        <element name = "RecordNumber" type = "RecordType" minOccurs = "0" maxOccurs = "1"/>
      </sequence>
    </complexType>
  </element>

  <element name = "Delivery">
    <complexType content = "elementOnly">
      <sequence>
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        <element name = "Date" type = "date" minOccurs = "0" maxOccurs = "1"/>
      </sequence>
    </complexType>
  </element>

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  </simpleType>

  <simpleType name = "CatalogType" base = "string">
    <maxLength value = "20"/>
  </simpleType>

  <simpleType name = "RecordType" base = "string">
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  <simpleType name = "CostCenterType" base = "string">
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  </simpleType>

  <simpleType name = "TrackingType" base = "string">
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  </simpleType>

  <simpleType name = "ShipmentType" base = "string">
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  </simpleType>

  <simpleType name = "InvNumType" base = "string">
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  <simpleType name = "PONumType" base = "string">
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  <simpleType name = "DescType" base = "string">
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  </simpleType>

  <simpleType name = "CommentType" base = "string">
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<element name = "Item">
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      <element name = "UPC" type = "UPCType" minOccurs = "0" maxOccurs = "1" />
      <element name = "Description" type = "CommentType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Quantity" type = "float" minOccurs = "0" maxOccurs = "1"/>
      <element name = "UnitOfMeasurement" type = "UnitOfMeasurementType" minOccurs = "0"
maxOccurs = "1"/>
      <element name = "UnitPrice" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
      <element name = "ExtAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DiscountAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "TaxAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
      <element name = "TaxRate" type = "TaxRateType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "TotalAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>

      <element ref = "Delivery" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "PickUp" minOccurs = "0" maxOccurs = "1"/>

      <element name = "CostCenterNumber" type = "CostCenterType" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "TrackingNumber" type = "TrackingType" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "FreightAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs="1"/>
      <element name = "HandlingAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs="1"/>
      <element name = "ShipmentNumber" type = "ShipmentType" minOccurs = "0" maxOccurs="1"/>
      <element name = "UNSPSCCode" type = "UNSPSCType" minOccurs = "0" maxOccurs="1"/>
      <element name = "CatalogNumber" type = "CatalogType" minOccurs = "0" maxOccurs="1"/>
      <element name = "CommCode" type = "CommodityCodeType" minOccurs = "0" maxOccurs =
"1"/>
      <element ref = "Level3Item" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
    <attribute name = "Number" type = "int" use = "required"/>
  </complexType>
</element>

<simpleType name = "UnitOfMeasurementType" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "SKUType" base = "string">
  <maxLength value = "18"/>
</simpleType>

<simpleType name = "UPCType" base = "string">
  <maxLength value = "18"/>
</simpleType>

<element name = "Address">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "Company" type = "CompanyNameType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Street" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Street2" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "City" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
  </complexType>
</element>
```

```

        <element name = "State" type = "StateType" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Zip" type = "ZipType" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Country" type = "CountryCode" minOccurs = "0" maxOccurs = "1"/>
        <element name = "AddressLine1" type = "AddressLineType" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "AddressLine2" type = "AddressLineType" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "AddressLine3" type = "AddressLineType" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "AddressLine4" type = "AddressLineType" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "CountryName" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
</complexType>
</element>

<simpleType name = "NameType" base = "string">
    <maxLength value = "30"/>
</simpleType>

<simpleType name = "AddressLineType" base = "string">
    <maxLength value = "40"/>
</simpleType>

<simpleType name = "StateType" base = "string">
    <maxLength value = "2"/>
</simpleType>

<simpleType name = "ZipType" base = "string">
    <maxLength value = "10"/>
</simpleType>

<simpleType name = "CountryCode" base = "string">
    <maxLength value = "3"/>
</simpleType>

<simpleType name = "EMailType" base = "string">
    <maxLength value = "40"/>
</simpleType>

<simpleType name = "PhoneNumberType" base = "string">
    <maxLength value = "20"/>
</simpleType>

<complexType name = "CurrencyAmount" base = "Decimal9_2">
    <attribute name = "Currency" type = "CurrencyCode"/>
</complexType>

<simpleType name = "Decimal9_2" base = "string">
    <maxLength value = "12"/>
</simpleType>

<simpleType name = "CurrencyCode" base = "string">
    <maxLength value = "3"/>
</simpleType>

<simpleType name = "ShipEUType" base = "string">
    <maxLength value = "1"/>

```

```
</simpleType>

<simpleType name = "TaxRateType" base = "string">
  <maxLength value = "6"/>
</simpleType>

<simpleType name = "CommodityCodeType" base = "string">
  <maxLength value = "8"/>
</simpleType>

<element name = "Tender" type = "TenderInfo"/>

<complexType name = "TenderInfo" content = "elementOnly">
  <choice>
    <element ref = "ACH"/>
    <element ref = "Card"/>
    <element ref = "Check"/>
    <element ref = "Debit"/>
    <element ref = "PayPal"/>
  </choice>
</complexType>

<simpleType name = "TenderTypeEnum" base = "string">
  <enumeration value = "ACH"/>
  <enumeration value = "Card"/>
  <enumeration value = "Check"/>
  <enumeration value = "Debit"/>
  <enumeration value = "PayPal"/>
</simpleType>

<simpleType name = "TransactionTypeEnum" base = "string">
  <enumeration value = "Authorization"/>
  <enumeration value = "Capture"/>
  <enumeration value = "Sale"/>
  <enumeration value = "Credit"/>
  <enumeration value = "Void"/>
  <enumeration value = "ForceCapture"/>
  <enumeration value = "RepeatSale"/>
  <enumeration value = "GetStatus"/>
</simpleType>

<element name = "ACH">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "AcctType" type = "AcctTypeEnum" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AcctNum" type = "AcctNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "ABA" type = "ABAType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Prenote" type = "boolean" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AuthType" type = "AuthType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "CheckNum" type = "CheckNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "TermCity" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "TermState" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DL" type = "DLType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "SS" type = "SSType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DOB" type = "date" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DLState" type = "DLStateType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BankName" type = "BankNameType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "SellerMsg" type = "SellerMsgType" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
  </complexType>
</element>
```

```

        <element name = "BusName" type = "BusNameType" minOccurs = "0" maxOccurs = "1"/>
        <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
</complexType>
</element>

<simpleType name = "AcctTypeEnum" base = "string">
    <enumeration value = "Saving"/>
    <enumeration value = "Checking"/>
</simpleType>

<simpleType name = "AcctNumType" base = "string">
    <maxLength value = "19"/>
</simpleType>

<simpleType name = "MagDataType" base = "string">
    <maxLength value = "80"/>
</simpleType>

<simpleType name = "ABAType" base = "string">
    <maxLength value = "9"/>
</simpleType>

<simpleType name = "AuthType" base = "string">
    <maxLength value = "10"/>
</simpleType>

<simpleType name = "SellerMsgType" base = "string">
    <maxLength value = "31"/>
</simpleType>

<simpleType name = "BusNameType" base = "string">
    <maxLength value = "50"/>
</simpleType>

<element name = "Card">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "CardType" type = "CardTypeEnum" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CardNum" type = "CardNumType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "ExpDate" type = "ExpDateType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CVNum" type = "CVType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "MagData" type = "MagDataType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "NameOnCard" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CommercialCard" type = "CommCardType" minOccurs="0" maxOccurs="1"/>
            <element ref = "BuyerAuthResult" minOccurs="0" maxOccurs="1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

<simpleType name = "CardTypeEnum" base = "string">
    <enumeration value = "Visa"/>
    <enumeration value = "MasterCard"/>
    <enumeration value = "Amex"/>
    <enumeration value = "JCB"/>
    <enumeration value = "Discover"/>

```

```
<enumeration value = "DinersClub"/>
<enumeration value = "Switch"/>
<enumeration value = "Solo"/>
</simpleType>

<simpleType name = "CardNumType" base = "string">
  <maxLength value = "19"/>
</simpleType>

<simpleType name = "ExpDateType" base = "string">
  <maxLength value = "6"/>
</simpleType>

<simpleType name = "CVType" base = "string">
  <maxLength value = "4"/>
</simpleType>

<simpleType name = "CommCardType" base = "string">
  <maxLength value = "1"/>
</simpleType>

<element name = "Debit">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "CardNum" type = "CardNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "ExpDate" type = "ExpDateType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "MagData" type = "MagDataType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "NameOnCard" type = "NameType" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
  </complexType>
</element>

<element name = "Check">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "CheckType" type = "CheckTypeEnum" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AllianceNum" type = "string" minOccurs="0" maxOccurs="1"/>
      <element name = "CheckNum" type = "CheckNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "MICR" type = "MICRType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DL" type = "DLType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "SS" type = "SSType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DOB" type = "date" minOccurs = "0" maxOccurs = "1"/>
      <element name = "DLState" type = "DLStateType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AuthType" type = "AuthType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "CustomerType" type = "CustomerType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BankName" type = "BankNameType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BankState" type = "BankStateType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BankAcctType" type = "BankAcctType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "AcctNum" type = "AcctNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "ABA" type = "ABAType" minOccurs = "0" maxOccurs = "1"/>
      <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
      <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
    </sequence>
  </complexType>
</element>

<element name = "PayPal">
```

```

<complexType content = "elementOnly">
  <sequence>
    <element name = "EMail" type = "EMailType" minOccurs="0" maxOccurs="1"/>
    <element name = "PayerID" type = "PayerIDType" minOccurs="0" maxOccurs="1"/>
    <element name = "Token" type = "ECTokenType" minOccurs = "0" maxOccurs = "1"/>
    <element name = "ReturnURL" type = "uriReference" minOccurs = "0" maxOccurs = "1"/>
    <element name = "CancelURL" type = "uriReference" minOccurs = "0" maxOccurs = "1"/>
    <element name = "NotifyURL" type = "uriReference" minOccurs = "0" maxOccurs = "1"/>
    <element name = "ReqConfirmShipping" type = "boolean" minOccurs="0" maxOccurs="1"/>
    <element name = "NoShipping" type = "boolean" minOccurs="0" maxOccurs="1"/>
    <element name = "AddressOverride" type = "boolean" minOccurs="0" maxOccurs="1"/>
    <element name = "LocaleCode" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "PageStyle" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "HeaderImage" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "HeaderBorderColor" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "HeaderBackColor" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "PayflowColor" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "ButtonSource" type = "string" minOccurs="0" maxOccurs="1"/>
    <element name = "MerchantSessionID" type = "string" minOccurs="0" maxOccurs="1"/>
    <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
  </sequence>
</complexType>
</element>

<simpleType name = "CheckTypeEnum" base = "string">
  <enumeration value = "Personal"/>
  <enumeration value = "Corporate"/>
  <enumeration value = "Government"/>
</simpleType>

<simpleType name = "CheckNumType" base = "string">
  <maxLength value = "8"/>
</simpleType>

<simpleType name = "MICRType" base = "string">
  <maxLength value = "35"/>
</simpleType>

<simpleType name = "DLType" base = "string">
  <maxLength value = "35"/>
</simpleType>

<simpleType name = "DLStateType" base = "string">
  <maxLength value = "2"/>
</simpleType>

<simpleType name = "CustomerType" base = "string">
  <maxLength value = "10"/>
</simpleType>

<simpleType name = "BankNameType" base = "string">
  <maxLength value = "50"/>
</simpleType>

<simpleType name = "BankStateType" base = "string">
  <maxLength value = "2"/>
</simpleType>

```



```
<simpleType name = "BankAcctType" base = "string">
  <maxLength value = "10"/>
</simpleType>

<simpleType name = "SSType" base = "string">
  <maxLength value = "35"/>
</simpleType>

<complexType name = "AuthInfoType" content = "elementOnly">
  <sequence>
    <element name = "UserId" type = "UserIdType"/>
    <element name = "Password" type = "PasswordType" minOccurs = "0" maxOccurs = "1"/>
  </sequence>
</complexType>

<simpleType name = "UserIdType" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "CustCodeType" base = "string">
  <maxLength value = "17"/>
</simpleType>

<simpleType name = "PasswordType" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "PNRefType" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "PPRefType" base = "string">
  <maxLength value = "31"/>
</simpleType>

<simpleType name = "CorrelationIDType" base = "string">
  <maxLength value = "31"/>
</simpleType>

<simpleType name = "ECTokenType" base = "string">
<maxLength value = "20"/>
</simpleType>

<simpleType name = "PayerIDType" base = "string">
<maxLength value = "127"/>
</simpleType>

<simpleType name="Base64BinaryData" base="binary">
  <encoding value="base64"/>
</simpleType>

<element name = "ExtData">
  <complexType base = "string" content = "elementOnly">
    <attribute name = "Name" type = "string"/>
    <attribute name = "Value" type = "string"/>
  </complexType>
</element>
```

```
<simpleType name = "URI" base = "string">
  <maxLength value = "256"/>
</simpleType>

<simpleType name = "SicType" base = "string">
  <maxLength value = "4"/>
</simpleType>

<simpleType name = "StatusType" base = "string">
  <enumeration value = "New"/>
  <enumeration value = "Update"/>
  <enumeration value = "Replace"/>
</simpleType>

<simpleType name = "ReferenceIdType" base = "string">
  <maxLength value = "12"/>
</simpleType>

<simpleType name = "IpCodeType" base = "string">
  <maxLength value = "24"/>
</simpleType>

<simpleType name = "BuyerAuthMesgType" base = "string">
</simpleType>

<simpleType name = "Base64Sha1StringType" base = "string">
  <maxLength value = "28"/>
</simpleType>

<simpleType name = "ECIType" base = "string">
  <maxLength value = "2"/>
</simpleType>

<simpleType name = "AUResponseCode" base = "string">
  <maxLength value = "1"/>
</simpleType>

<simpleType name = "AUResponseText" base = "string">
</simpleType>

<simpleType name = "AUActionEnum" base = "string">
  <enumeration value = "Submit"/>
  <enumeration value = "Query"/>
</simpleType>

<complexType name = "AdditionalAmount" base = "Decimal9_2">
  <attribute name = "Type" type = "string"/>
</complexType>

</schema>
```



XMLPay DTD

A document type definition (DTD) defines the structure of an XML document. With a DTD you can define the set and order of tags, as well as the attributes for each. A well-formed XML document is considered valid when it conforms to its corresponding DTD.

The following is a document type definition (DTD) representation of the XMLPay schema.

```
<!ELEMENT Signature (#PCDATA)>
<!ELEMENT CustIP (#PCDATA)>
<!ELEMENT MerchantDescription (#PCDATA)>
<!ELEMENT MerchantServiceNum (#PCDATA)>
<!ELEMENT Recurring (#PCDATA)>
<!ELEMENT InvNum (#PCDATA)>
<!ELEMENT OrigInvNum (#PCDATA)>
<!ELEMENT Date (#PCDATA)>
<!ELEMENT OrderDateTime (#PCDATA)>
<!ELEMENT Name (#PCDATA)>
<!ELEMENT Company (#PCDATA)>
<!ELEMENT Street (#PCDATA)>
<!ELEMENT Street2 (#PCDATA)>
<!ELEMENT City (#PCDATA)>
<!ELEMENT State (#PCDATA)>
<!ELEMENT Zip (#PCDATA)>
<!ELEMENT Country (#PCDATA)>
<!ELEMENT AddressLine1 (#PCDATA)>
<!ELEMENT AddressLine2 (#PCDATA)>
<!ELEMENT AddressLine3 (#PCDATA)>
```

```
<!ELEMENT AddressLine4 (#PCDATA)>
<!ELEMENT CountryName (#PCDATA)>
<!ELEMENT Address ((Company?, Street?, Street2?, City?, State?, Zip?, Country?,
AddressLine1?, AddressLine2?, AddressLine3?, AddressLine4?, CountryName?))>
<!ELEMENT EMail (#PCDATA)>
<!ELEMENT Phone (#PCDATA)>
<!ELEMENT Fax (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!ELEMENT BillFrom (Name?, Address?, EMail?, Phone?, Fax?, URL?)>
<!ELEMENT CustomerId (#PCDATA)>
<!ELEMENT Phone2 (#PCDATA)>
<!ELEMENT CustCode (#PCDATA)>
<!ELEMENT PONum (#PCDATA)>
<!ELEMENT TaxExempt (#PCDATA)>
<!ELEMENT BillTo (CustomerId?, Name?, Address?, EMail?, Phone?, Phone2?, Fax?,
CustCode?, PONum?, TaxExempt?)>
<!ELEMENT ShipCarrier (#PCDATA)>
<!ELEMENT ShipMethod (#PCDATA)>
<!ELEMENT ShipFromEU (#PCDATA)>
<!ELEMENT ShipFrom (Name?, Address, EMail?, Phone?, Fax?, ShipFromEU?)>
<!ELEMENT ShipToEU (#PCDATA)>
<!ELEMENT ShipTo (Name?, Address, EMail?, Phone?, Phone2?, Fax?, ShipToEU?)>
<!ELEMENT Description (#PCDATA)>
<!ELEMENT SKU (#PCDATA)>
<!ELEMENT UPC (#PCDATA)>
<!ELEMENT Quantity (#PCDATA)>
```

```
<!ELEMENT UnitOfMeasurement (#PCDATA)>

<!ELEMENT UnitPrice (#PCDATA)>
<!ATTLIST UnitPrice Currency CDATA #IMPLIED>

<!ELEMENT ExtAmt (#PCDATA)>
<!ATTLIST ExtAmt Currency CDATA #IMPLIED>

<!ELEMENT DiscountAmt (#PCDATA)>
<!ATTLIST DiscountAmt Currency CDATA #IMPLIED>

<!ELEMENT TaxAmt (#PCDATA)>
<!ATTLIST TaxAmt Currency CDATA #IMPLIED>

<!ELEMENT TaxRate (#PCDATA)>

<!ELEMENT TotalAmt (#PCDATA)>
<!ATTLIST TotalAmt Currency CDATA #IMPLIED>

<!ELEMENT ExtData (#PCDATA)>
<!ATTLIST ExtData Name CDATA #IMPLIED>
<!ATTLIST ExtData Value CDATA #IMPLIED>

<!ELEMENT Time (#PCDATA)>

<!ELEMENT Delivery ((Time?, Date?))>

<!ELEMENT RecordNumber (#PCDATA)>

<!ELEMENT PickUp ((Address?, Time?, Date?, RecordNumber?))>

<!ELEMENT CostCenterNumber (#PCDATA)>

<!ELEMENT TrackingNumber (#PCDATA)>

<!ELEMENT FreightAmt (#PCDATA)>
<!ATTLIST FreightAmt Currency CDATA #IMPLIED>

<!ELEMENT HandlingAmt (#PCDATA)>
<!ATTLIST HandlingAmt Currency CDATA #IMPLIED>

<!ELEMENT ShipmentNumber (#PCDATA)>

<!ELEMENT UNSPSCCode (#PCDATA)>

<!ELEMENT CatalogNumber (#PCDATA)>

<!ELEMENT CommCode (#PCDATA)>

<!ELEMENT Amount (#PCDATA)>
<!ATTLIST Amount Currency CDATA #IMPLIED>
```

```

<!ELEMENT ExemptCode (#PCDATA)>
<!ELEMENT Percent (#PCDATA)>
<!ELEMENT AllTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT CityTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT CountySalesTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT CountyTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT EnvironmentalTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT LocalTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT StateAndLocalTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT StateTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT StateGoodsTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT StateSalesTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT StateServicesTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT ValueAddedTax (Amount?, ExemptCode?, Percent?)>
<!ELEMENT TaxType (#PCDATA)>
<!ELEMENT Level3Item ((AllTax?, CityTax?, CountySalesTax?, CountyTax?,
EnvironmentalTax?, LocalTax?, StateAndLocalTax?, StateTax?, StateGoodsTax?,
StateSalesTax?, StateServicesTax?, ValueAddedTax?, TaxType?, ExtData*))>
<!ELEMENT Item ((SKU?, UPC?, Description?, Quantity?, UnitOfMeasurement?, UnitPrice?,
ExtAmt?, DiscountAmt?, TaxAmt?, TaxRate?, TotalAmt?, ExtData*, Delivery?, PickUp?,
CostCenterNumber?, TrackingNumber?, FreightAmt?, HandlingAmt?, ShipmentNumber?,
UNSPSCCode?, CatalogNumber?, CommCode?, Level3Item?))>
<!ATTLIST Item Number CDATA #REQUIRED>
<!ELEMENT Items (Item*)>
<!ELEMENT ShippingAmt (#PCDATA)>
<!ATTLIST ShippingAmt Currency CDATA #IMPLIED>
<!ELEMENT DutyAmt (#PCDATA)>
<!ATTLIST DutyAmt Currency CDATA #IMPLIED>
<!ELEMENT NationalTaxIncl (#PCDATA)>

```

```

<!ELEMENT ItemAmt (#PCDATA)>
<!ATTLIST ItemAmt Currency CDATA #IMPLIED>

<!ELEMENT Comment (#PCDATA)>

<!ELEMENT AlternateTaxAmount (#PCDATA)>
<!ATTLIST AlternateTaxAmount Currency CDATA #IMPLIED>

<!ELEMENT AlternateTaxID (#PCDATA)>

<!ELEMENT BuyingGroup (Name?, Address?)>

<!ELEMENT CardStart (#PCDATA)>

<!ELEMENT CardIssue (#PCDATA)>

<!ELEMENT CustomerValueAddedTaxRegNum (#PCDATA)>

<!ELEMENT FreightRate (#PCDATA)>

<!ELEMENT GenericProductDescription (#PCDATA)>

<!ELEMENT HandlingRate (#PCDATA)>

<!ELEMENT InvoiceExpirationDate (#PCDATA)>

<!ELEMENT NationalTax (Amount?, ExemptCode?, Percent?)>

<!ELEMENT Requestor (Name?, Address?)>

<!ELEMENT ValueAddedTaxRegNum (#PCDATA)>

<!ELEMENT Level3Invoice ((AllTax?, AlternateTaxAmount?, AlternateTaxID?,
BuyingGroup?, CardStart?, CardIssue?, CountyTax?, CountySalesTax?, CityTax?,
CustomerValueAddedTaxRegNum?, CommCode?, EnvironmentalTax?, FreightRate?,
GenericProductDescription?, HandlingRate?, InvoiceExpirationDate?, LocalTax?,
NationalTax?, Requestor?, StateAndLocalTax?, StateSalesTax?, StateGoodsTax?,
StateTax?, StateServicesTax?, ValueAddedTax?, ValueAddedTaxRegNum?, ExtData*))>

<!ELEMENT Memo (#PCDATA)>

<!ELEMENT Custom (#PCDATA)>

<!ELEMENT OrderDesc (#PCDATA)>

<!ELEMENT Invoice ((CustIP?, MerchantDescription?, MerchantServiceNum?, Recurring?,
InvNum?, OrigInvNum?, Date?, OrderDateTime?, BillFrom?, BillTo?, ShipCarrier?,
ShipMethod?, ShipFrom?, ShipTo?, Description*, Items?, DiscountAmt?, ShippingAmt?,
DutyAmt?, TaxAmt?, NationalTaxIncl?, TotalAmt?, FreightAmt?, HandlingAmt?, ItemAmt?,
Comment?, Level3Invoice?, Memo?, Custom?, OrderDesc?, ExtData*))>

```

```
<!ELEMENT AcctType (#PCDATA)>
<!ELEMENT AcctNum (#PCDATA)>
<!ELEMENT ABA (#PCDATA)>
<!ELEMENT Prenote (#PCDATA)>
<!ELEMENT AuthType (#PCDATA)>
<!ELEMENT CheckNum (#PCDATA)>
<!ELEMENT TermCity (#PCDATA)>
<!ELEMENT TermState (#PCDATA)>
<!ELEMENT DL (#PCDATA)>
<!ELEMENT SS (#PCDATA)>
<!ELEMENT DOB (#PCDATA)>
<!ELEMENT DLState (#PCDATA)>
<!ELEMENT BankName (#PCDATA)>
<!ELEMENT SellerMsg (#PCDATA)>
<!ELEMENT BusName (#PCDATA)>
<!ELEMENT ACH ((AcctType?, AcctNum?, ABA?, Prenote?, AuthType?, CheckNum?, TermCity?,
TermState?, DL?, SS?, DOB?, DLState?, BankName?, SellerMsg?, BusName?, ExtData*))>
<!ELEMENT CardType (#PCDATA)>
<!ELEMENT CardNum (#PCDATA)>
<!ELEMENT ExpDate (#PCDATA)>
<!ELEMENT CVNum (#PCDATA)>
<!ELEMENT MagData (#PCDATA)>
<!ELEMENT NameOnCard (#PCDATA)>
<!ELEMENT CommercialCard (#PCDATA)>
<!ELEMENT Status (#PCDATA)>
<!ELEMENT AuthenticationId (#PCDATA)>
```



```
<!ELEMENT PAREq (#PCDATA)>
<!ELEMENT ACSUrl (#PCDATA)>
<!ELEMENT ECI (#PCDATA)>
<!ELEMENT CAVV (#PCDATA)>
<!ELEMENT XID (#PCDATA)>
<!ELEMENT BuyerAuthResult ((Status, AuthenticationId?, PAREq?, ACSUrl?, ECI?, CAVV?,
XID?))>
<!ELEMENT Card ((CardType?, CardNum?, ExpDate?, CVNum?, MagData?, NameOnCard?,
CommercialCard?, BuyerAuthResult?, ExtData*))>
<!ELEMENT CheckType (#PCDATA)>
<!ELEMENT AllianceNum (#PCDATA)>
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<!ELEMENT BankState (#PCDATA)>
<!ELEMENT BankAcctType (#PCDATA)>
<!ELEMENT Check ((CheckType?, AllianceNum?, CheckNum?, MICR?, DL?, SS?, DOB?,
DLState?, AuthType?, CustomerType?, BankName?, BankState?, BankAcctType?, AcctNum?,
ABA?, ExtData*, Address?))>
<!ELEMENT Debit ((CardNum?, ExpDate?, MagData?, NameOnCard?, ExtData*))>
<!ELEMENT PayerID (#PCDATA)>
<!ELEMENT Token (#PCDATA)>
<!ELEMENT ReturnURL (#PCDATA)>
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<!ELEMENT AddressOverride (#PCDATA)>
<!ELEMENT LocaleCode (#PCDATA)>
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<!ELEMENT PageStyle (#PCDATA)>
<!ELEMENT HeaderImage (#PCDATA)>
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<!ELEMENT ButtonSource (#PCDATA)>
<!ELEMENT MerchantSessionID (#PCDATA)>
<!ELEMENT PayPal ((Email?, PayerID?, Token?, ReturnURL?, CancelURL?, NotifyURL?,
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<!ELEMENT Tender ((ACH| Card| Check| Debit| PayPal))>
<!ELEMENT PayData ((Invoice, Tender))>
<!ELEMENT PKCS7Signature (#PCDATA)>
<!ELEMENT PayDataAuth ((PKCS7Signature| Signature))>
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<!ELEMENT Partner (#PCDATA)>
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<!ELEMENT PPRef (#PCDATA)>
<!ELEMENT Capture (((PNRef| PPRef), Invoice?, ExtData*))>
<!ELEMENT Sale ((PayData, PayDataAuth?, ExtData*))>
<!ELEMENT Credit (((PNRef| PPRef| Tender), Invoice?, ExtData*))>
<!ELEMENT Note (#PCDATA)>
<!ELEMENT Void (((PNRef| PPRef), Note?, ExtData*))>
<!ELEMENT AuthCode (#PCDATA)>
<!ELEMENT ForceCapture ((PayData, PayDataAuth?, AuthCode, ExtData*))>
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```

<!ELEMENT RepeatSale ((PNRef, Invoice?, ExtData*))>
<!ELEMENT GetStatus ((PNRef, ExtData*))>
<!ELEMENT VerifyEnrollment ((PayData, ExtData*))>
<!ELEMENT PAREs (#PCDATA)>
<!ELEMENT ValidateAuthentication ((PAREs, ExtData*))>
<!ELEMENT Action (#PCDATA)>
<!ELEMENT RMSID (#PCDATA)>
<!ELEMENT TransactionUpdate ((PNRef, Action, RMSID?, ExtData*))>
<!ELEMENT SetExpressCheckout (((Authorization| Sale), ExtData*))>
<!ELEMENT GetExpressCheckout (((Authorization| Sale), ExtData*))>
<!ELEMENT DoExpressCheckout (((Authorization| Sale), ExtData*))>
<!ELEMENT Verbosity (#PCDATA)>
<!ELEMENT BrowserUserAgent (#PCDATA)>
<!ELEMENT BrowserTime (#PCDATA)>
<!ELEMENT BrowserCountryCode (#PCDATA)>
<!ELEMENT Transaction (((Authorization| Capture| Sale| Credit| Void| ForceCapture|
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BrowserUserAgent?, BrowserTime?, BrowserCountryCode?)>
<!ATTLIST Transaction Id CDATA #IMPLIED>
<!ATTLIST Transaction CustRef CDATA #IMPLIED>
<!ELEMENT Transactions (Transaction+)>
<!ELEMENT Start (#PCDATA)>
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<!ELEMENT RetryNumDays (#PCDATA)>
<!ELEMENT CompanyName (#PCDATA)>

```

```

<!ELEMENT OptionalTrans (#PCDATA)>

<!ELEMENT OptionalTransAmt (#PCDATA)>
<!ATTLIST OptionalTransAmt Currency CDATA #IMPLIED>

<!ELEMENT OrigProfileID (#PCDATA)>

<!ELEMENT PaymentNum (#PCDATA)>

<!ELEMENT RPData ((Name?, TotalAmt?, Start?, Term?, PayPeriod?, MaxFailPayments?,
RetryNumDays?, EMail?, CompanyName?, Comment?, OptionalTrans?, OptionalTransAmt?,
BillTo?, ShipTo?, OrigProfileID?, PaymentNum?, ExtData*))>

<!ELEMENT Add ((RPData, Tender))>

<!ELEMENT ProfileID (#PCDATA)>

<!ELEMENT Modify ((ProfileID, RPData?, Tender?))>

<!ELEMENT Cancel (ProfileID)>

<!ELEMENT Reactivate ((ProfileID, RPData?, Tender?))>

<!ELEMENT Payment ((ProfileID, RPData?, Tender?))>

<!ELEMENT PaymentHistory (#PCDATA)>

<!ELEMENT Inquiry (ProfileID, PaymentHistory?)>

<!ELEMENT RecurringProfile (((Add| Modify| Cancel| Reactivate| Payment| Inquiry)))>
<!ATTLIST RecurringProfile Id CDATA #IMPLIED>

<!ELEMENT RecurringProfiles (RecurringProfile+)>

<!ELEMENT AccountUpdateRequest ((Action, (PNRef| Tender), ExtData*))>

<!ELEMENT AccountUpdateRequests (AccountUpdateRequest+)>

<!ELEMENT IntegrationType (#PCDATA)>

<!ELEMENT IntegrationVersion (#PCDATA)>

<!ELEMENT WrapperType (#PCDATA)>

<!ELEMENT WrapperVersion (#PCDATA)>

<!ELEMENT OSName (#PCDATA)>

<!ELEMENT OSArchitecture (#PCDATA)>

```

```
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<!ELEMENT JavaVersion (#PCDATA)>
<!ELEMENT Proxy (#PCDATA)>
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<!ELEMENT RequestData ((Vendor, Partner, (Transactions| RecurringProfiles|
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<!ELEMENT User (#PCDATA)>
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<!ATTLIST XMLPayRequest version CDATA #IMPLIED>
<!ATTLIST XMLPayRequest request_id CDATA #IMPLIED>
<!ATTLIST XMLPayRequest response_id CDATA #IMPLIED>
<!ATTLIST XMLPayRequest Timeout CDATA #IMPLIED>
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<!ELEMENT CardSecure (#PCDATA)>
<!ELEMENT ResponseText (#PCDATA)>
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<!ELEMENT SettleDate (#PCDATA)>
<!ELEMENT STAN (#PCDATA)>
<!ELEMENT RRN (#PCDATA)>
<!ELEMENT HostCode (#PCDATA)>
<!ELEMENT HostResponse (#PCDATA)>
```

```

<!ELEMENT ProcessorResult ((AVSResult?, CVResult?, CardSecure?, ResponseText?,
AdditionalMessages?, SettleDate?, STAN?, RRN?, HostCode?, HostResponse?, ExtData*))>

<!ELEMENT Message (#PCDATA)>

<!ELEMENT XMLData (#PCDATA)>

<!ELEMENT FraudPreprocessResult ((Message?, XMLData?))>

<!ELEMENT FraudPostprocessResult ((Message?, XMLData?))>

<!ELEMENT IAVSResult (#PCDATA)>

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<!ELEMENT OrigMessage (#PCDATA)>

<!ELEMENT FeeAmount (#PCDATA)>

<!ELEMENT PayerStatus (#PCDATA)>

<!ELEMENT PaymentType (#PCDATA)>

<!ELEMENT PendingReason (#PCDATA)>

<!ELEMENT CorrelationID (#PCDATA)>

<!ELEMENT PayPalResult ((Email?, PayerID?, Token?, PPRef?, FeeAmount, PayerStatus?,
PaymentType?, PendingReason?, Custom?, InvNum?, Phone?, Name?, ShipTo?,
CorrelationID?))>

<!ELEMENT TransactionResult ((Result, BuyerAuthResult?, ProcessorResult?,
FraudPreprocessResult?, FraudPostprocessResult?, CardSecure?, IAVSResult?,
AVSResult?, CVResult?, Message?, PNRef?, AuthCode?, HostCode?, HostURL?, OrigResult?,
TrStatus?, ReceiptURL?, ACHStatus?, OrigPNRef?, OrigMessage?, PayPalResult?,
ExtData*))>
<!ATTLIST TransactionResult Id CDATA #IMPLIED>

```

```

<!ATTLIST TransactionResult CustRef CDATA #IMPLIED>
<!ATTLIST TransactionResult Duplicate CDATA #IMPLIED>

<!ELEMENT TransactionResults (TransactionResult+)>

<!ELEMENT RPref (#PCDATA)>

<!ELEMENT End (#PCDATA)>

<!ELEMENT Amt (#PCDATA)>
<!ATTLIST Amt Currency CDATA #IMPLIED>

<!ELEMENT PaymentsLeft (#PCDATA)>

<!ELEMENT NextPayment (#PCDATA)>

<!ELEMENT AggregateAmt (#PCDATA)>
<!ATTLIST AggregateAmt Currency CDATA #IMPLIED>

<!ELEMENT AggregateOptionalTransAmt (#PCDATA)>
<!ATTLIST AggregateOptionalTransAmt Currency CDATA #IMPLIED>

<!ELEMENT NumFailedPayments (#PCDATA)>

<!ELEMENT TransTime (#PCDATA)>

<!ELEMENT TransState (#PCDATA)>

<!ELEMENT RPPaymentResult ((PaymentNum, PNRef?, TransTime?, Result, Tender?, Amt?,
TransState?, ExtData*))>
<!ATTLIST RPPaymentResult Id CDATA #IMPLIED>

<!ELEMENT RecurringProfileResult ((Result, Message?, ProfileID?, RPref?, Status?,
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CompanyName?, Amt?, PaymentsLeft?, NextPayment?, AggregateAmt?,
AggregateOptionalTransAmt?, NumFailedPayments?, Tender?, BillTo?, ShipTo?,
TransactionResult?, RPPaymentResult*, ExtData*))>
<!ATTLIST RecurringProfileResult Id CDATA #IMPLIED>

<!ELEMENT RecurringProfileResults (RecurringProfileResult+)>

<!ELEMENT AUResponseCode (#PCDATA)>

<!ELEMENT AUResponseText (#PCDATA)>

<!ELEMENT AUSubmitDate (#PCDATA)>

<!ELEMENT AccountUpdateResult ((Result, Message, PNRef, AUResponseCode,
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<!ELEMENT AccountUpdateResults (AccountUpdateResult+)>

```

```
<!ELEMENT HTTPCommitResult ((Result, Message?, ExtData*))>
<!ELEMENT HTTPCommitResults (HTTPCommitResult+)>
<!ELEMENT ResponseData ((Vendor, Partner, (TransactionResults|
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<!ELEMENT ReceiptData ((Vendor, Partner, Transaction, TransactionResult))>
<!ELEMENT XMLPayReceipt ((ReceiptData, Signature?))>
<!ELEMENT TransactionReceipts (XMLPayReceipt+)>
<!ELEMENT XMLPayResponse ((ResponseData, Signature?, TransactionReceipts?))>
<!ATTLIST XMLPayResponse xmlns CDATA #IMPLIED>
<!ATTLIST XMLPayResponse version CDATA #IMPLIED>
<!ATTLIST XMLPayResponse request_id CDATA #IMPLIED>
<!ATTLIST XMLPayResponse response_id CDATA #IMPLIED>
```




Transaction Results

The transaction result status response (RESULT) is the first value returned from the Payflow SDK server. This value indicates the overall status of the transaction attempt. The response message (RESPMSG) provides a brief description for decline or error results.

- A value of 0 (zero) indicates that no errors occurred and the transaction was approved.
- A value greater than zero indicates a decline or error. See [Table C.1](#).
- A value less than zero indicates that a communication error occurred. In this case, no transaction is attempted. See [Table C.1](#).

TABLE C.1 *Payflow transaction RESULT values and RESPMSG text*

RESULT	RESPMSG and Explanation
0	Approved
1	User authentication failed. Error is caused by one or more of the following: <ul style="list-style-type: none">• Login information is incorrect. Verify that USER, VENDOR, PARTNER, and PASSWORD have been entered correctly. VENDOR is your merchant ID and USER is the same as VENDOR unless you created a Payflow user. All fields are case sensitive.• Invalid Processor information entered. Contact merchant bank to verify.• "Allowed IP Address" security feature implemented. The transaction is coming from an unknown IP address. See PayPal Manager online help for details on how to use Manager to update the allowed IP addresses.• You are using a test (not active) account to submit a transaction to the live PayPal servers. Change the host address from the test server URL to the live server URL.
2	Invalid tender type. Your merchant bank account does not support the following credit card type that was submitted.
3	Invalid transaction type. Transaction type is not appropriate for this transaction. For example, you cannot credit an authorization-only transaction.
4	Invalid amount format. Use the format: “#####.##” Do not include currency symbols or commas.
5	Invalid merchant information. Processor does not recognize your merchant account information. Contact your bank account acquirer to resolve this problem.
6	Invalid or unsupported currency code
7	Field format error. Invalid information entered. See RESPMSG.
8	Not a transaction server
9	Too many parameters or invalid stream

TABLE C.1 Payflow transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
10	Too many line items
11	Client time-out waiting for response
12	Declined. Check the credit card number, expiration date, and transaction information to make sure they were entered correctly. If this does not resolve the problem, have the customer call their card issuing bank to resolve.
13	Referral. Transaction cannot be approved electronically but can be approved with a verbal authorization. Contact your merchant bank to obtain an authorization and submit a manual Voice Authorization transaction.
14	Invalid Client Certification ID. Check the HTTP header. If the tag, X-VPS-VIT-CLIENT-CERTIFICATION-ID, is missing, RESULT code 14 is returned.
19	Original transaction ID not found. The transaction ID you entered for this transaction is not valid. See RESPMSG.
20	Cannot find the customer reference number
22	Invalid ABA number
23	Invalid account number. Check credit card number and re-submit.
24	Invalid expiration date. Check and re-submit.
25	<p>Invalid Host Mapping. Error is caused by one or more of the following:</p> <ul style="list-style-type: none"> • You are trying to process a tender type such as Discover Card, but you are not set up with your merchant bank to accept this card type. • You are trying to process an Express Checkout transaction when your account is not set up to do so. Contact your account holder to have Express Checkout added to your account.
26	Invalid vendor account. Login information is incorrect. Verify that USER, VENDOR, PARTNER, and PASSWORD have been entered correctly. VENDOR is your merchant ID and USER is the same as VENDOR unless you created a Payflow user. All fields are case sensitive.
27	Insufficient partner permissions
28	Insufficient user permissions
29	Invalid XML document. This could be caused by an unrecognized XML tag or a bad XML format that cannot be parsed by the system.
30	Duplicate transaction
31	Error in adding the recurring profile
32	Error in modifying the recurring profile
33	Error in canceling the recurring profile

TABLE C.1 *Payflow transaction RESULT values and RESPMSG text (Continued)*

RESULT	RESPMSG and Explanation
34	Error in forcing the recurring profile
35	Error in reactivating the recurring profile
36	OLTP Transaction failed
37	Invalid recurring profile ID
50	Insufficient funds available in account
51	Exceeds per transaction limit
99	General error. See RESPMSG.
100	Transaction type not supported by host
101	Time-out value too small
102	Processor not available
103	Error reading response from host
104	Timeout waiting for processor response. Try your transaction again.
105	Credit error. Make sure you have not already credited this transaction, or that this transaction ID is for a creditable transaction. (For example, you cannot credit an authorization.)
106	Host not available
107	Duplicate suppression time-out
108	Void error. See RESPMSG. Make sure the transaction ID entered has not already been voided. If not, then look at the Transaction Detail screen for this transaction to see if it has settled. (The Batch field is set to a number greater than zero if the transaction has been settled). If the transaction has already settled, your only recourse is a reversal (credit a payment or submit a payment for a credit).
109	Time-out waiting for host response
110	Referenced auth (against order) Error
111	Capture error. Either an attempt to capture a transaction that is not an authorization transaction type, or an attempt to capture an authorization transaction that has already been captured.
112	Failed AVS check. Address and ZIP code do not match. An authorization may still exist on the cardholder's account.
113	Merchant sale total will exceed the sales cap with current transaction. ACH transactions only.
114	Card Security Code (CSC) Mismatch. An authorization may still exist on the cardholder's account.

TABLE C.1 **Payflow transaction RESULT values and RESPMSG text** (Continued)

RESULT	RESPMSG and Explanation
115	System busy, try again later
116	VPS Internal error. Failed to lock terminal number
117	Failed merchant rule check. One or more of the following three failures occurred: An attempt was made to submit a transaction that failed to meet the security settings specified on the PayPal Manager <i>Security Settings</i> page. If the transaction exceeded the Maximum Amount security setting, then no values are returned for AVS or CSC. AVS validation failed. The AVS return value should appear in the RESPMSG. CSC validation failed. The CSC return value should appear in the RESPMSG.
118	Invalid keywords found in string fields
119	General failure within PIM Adapter
120	Attempt to reference a failed transaction
121	Not enabled for feature
122	Merchant sale total will exceed the credit cap with current transaction. ACH transactions only.
125	Fraud Protection Services Filter — Declined by filters
126	Fraud Protection Services Filter — Flagged for review by filters Important Note: Result code 126 indicates that a transaction triggered a fraud filter. This is not an error, but a notice that the transaction is in a review status. The transaction has been authorized but requires you to review and to manually accept the transaction before it will be allowed to settle. Result code 126 is intended to give you an idea of the kind of transaction that is considered suspicious to enable you to evaluate whether you can benefit from using the Fraud Protection Services. To eliminate result 126, turn the filters off. For more information, see the Fraud Protection Services documentation for your payments solution. It is available on the PayPal Manager Documentation page.
127	Fraud Protection Services Filter — Not processed by filters
128	Fraud Protection Services Filter — Declined by merchant after being flagged for review by filters
131	Version 1 Payflow Pro SDK client no longer supported. Upgrade to the most recent version of the SDK .
132	Card has not been submitted for update
133	Data mismatch in HTTP retry request
150	Issuing bank timed out
151	Issuing bank unavailable

TABLE C.1 Payflow transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
200	Reauth error
201	Order error
402	PIM Adapter Unavailable
403	PIM Adapter stream error
404	PIM Adapter Timeout
600	Cybercash Batch Error
601	Cybercash Query Error
1000	Generic host error. This is a generic message returned by your credit card processor. The RESPMSG will contain more information describing the error.
1001	Buyer Authentication Service unavailable
1002	Buyer Authentication Service — Transaction timeout
1003	Buyer Authentication Service — Invalid client version
1004	Buyer Authentication Service — Invalid timeout value
1011	Buyer Authentication Service unavailable
1012	Buyer Authentication Service unavailable
1013	Buyer Authentication Service unavailable
1014	Buyer Authentication Service — Merchant is not enrolled for Buyer Authentication Service (3-D Secure).
1016	Buyer Authentication Service — 3-D Secure error response received. Instead of receiving a PARES response to a Validate Authentication transaction, an error response was received.
1017	Buyer Authentication Service — 3-D Secure error response is invalid. An error response is received and the response is not well formed for a Validate Authentication transaction.
1021	Buyer Authentication Service — Invalid card type
1022	Buyer Authentication Service — Invalid or missing currency code
1023	Buyer Authentication Service — merchant status for 3D secure is invalid
1041	Buyer Authentication Service — Validate Authentication failed: missing or invalid PARES
1042	Buyer Authentication Service — Validate Authentication failed: PARES format is invalid

TABLE C.1 Payflow transaction **RESULT** values and **RESPMSG** text (Continued)

RESULT	RESPMSG and Explanation
1043	Buyer Authentication Service — Validate Authentication failed: Cannot find successful Verify Enrollment
1044	Buyer Authentication Service — Validate Authentication failed: Signature validation failed for PARES
1045	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid amount in PARES
1046	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid acquirer in PARES
1047	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid Merchant ID in PARES
1048	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid card number in PARES
1049	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid currency code in PARES
1050	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid XID in PARES
1051	Buyer Authentication Service — Validate Authentication failed: Mismatched or invalid order date in PARES
1052	Buyer Authentication Service — Validate Authentication failed: This PARES was already validated for a previous Validate Authentication transaction

AVS Result Codes

For US customers the Address Verification Service (AVS) compares the street address and zip code submitted with that on file at the cardholder's bank. Any one of the following results can appear in the AVS Street Match and AVS Zip Match fields on the transaction detail screen:

TABLE C.2 AVS ZIP match results

Result	Meaning
MATCH	Information submitted matches information on file with cardholder's bank.
NO MATCH	Information submitted does not match information on file with the cardholder's bank.

Results can vary on the same transaction detail screen. In other words, AVS Street Match = Y and AVS Zip Match = N (and vice versa) could appear on the same transaction detail screen. When service is unavailable, no code is returned.

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