



XMLPay Developer's Guide

Payflow Pro 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 Pro Developer's Guide* 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 Support tab at <http://www.paypal.com/mts>.

Revision History

Revision history for *Website Payments Pro Payflow Edition—XMLPay Developer's Guide*.

| Date | Description |
|---------------|---|
| 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="IDT1123">
  <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:

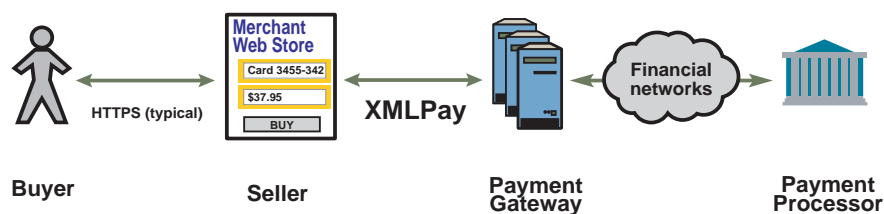
- Funds authorization and capture
- Sales and repeat sales
- Voiding of transactions

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.

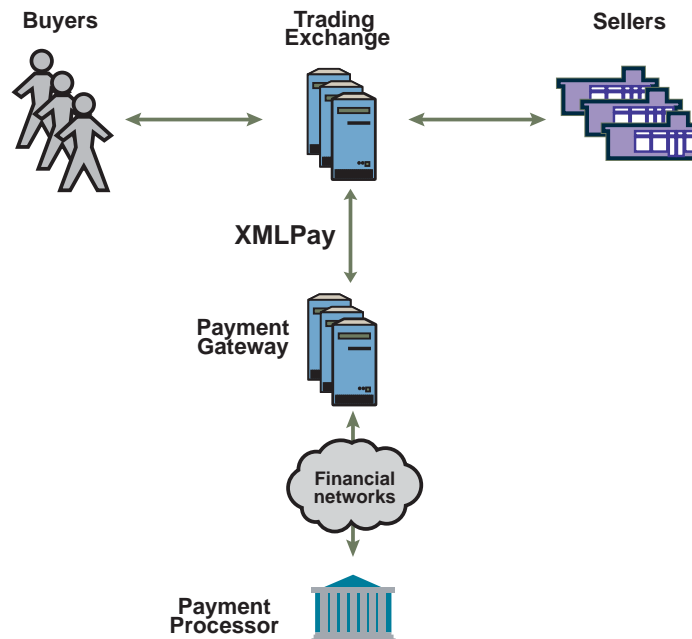


The Seller uses XMLPay to forward the Buyer's payment information to a Payment Processor. The Seller formats an `XMLPayRequest` and submits it either directly to an XMLPay-compliant payment processor or, as pictured, indirectly via an XMLPay-compliant Payment Gateway. Responses have the type `XMLPayResponse`.

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.



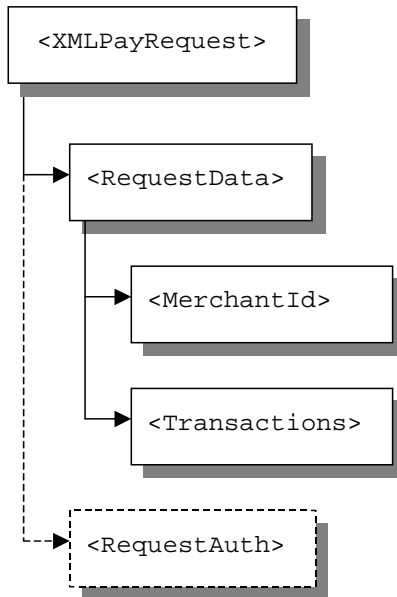
In this way, the Trading Exchange links payment execution to other XML-based communications between Buyers and Sellers such as Advance Shipping Notice delivery, Purchase Order communication, or other B2B communication functions.

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.

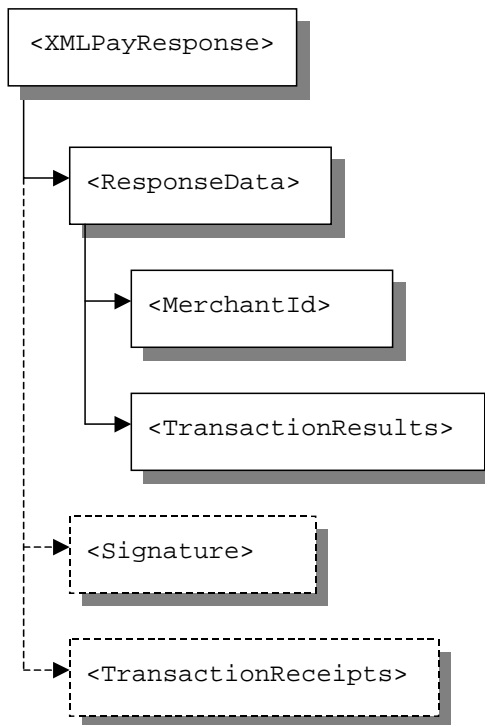
RequestAuth is an optional structure used to authenticate the submitting party, in the absence of transport level authentication.

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 Pro 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 Pro 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)?
  (RPPref)?
  (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. |
| RPPref | 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)?
  (RPPref)?
  (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 |
|----------------------------------|--|
| AggregateOptionalTransAmt | 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. Some parameters cannot be processed by specific processors. For details on what your processor can process, see *Payflow Pro Developer's Guide*.

If you are developing applications that use the Recurring Billing Service, see *Recurring Billing Service User's Guide*. That document provides detailed information about Payflow SDK 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 <i>Payflow Pro Developer's Guide</i> .) | 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 |
| 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 <i>Payflow Pro Developer's Guide</i> .) | Country |
| 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 |

TABLE 3.2 Retail credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|-----------------------|---|---------------------------|
| 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 |
| 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 |

TABLE 3.2 Retail credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|---|-----------------------|
| 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 |
| 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 |

TABLE 3.2 Retail credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|---|-----------------------|
| 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 |
| TAXEXEMPT | Tax exempt status. | TaxExempt |
| TENDER | The method of payment. | Tender |

TABLE 3.2 Retail credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|-----------------------|---|-------------------------|
| 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 |
| ALTAXAMT | Tax amount | Level3Invoice→AllTax |
| ALTERNATETAXAMT | Alternate tax amount | Level3Invoice→AlternateTaxAmount |
| ALTERNATETAXID | Alternate tax ID number | Level3Invoice→AlternateTaxID |
| BGNAME | Buying Group name | Level3Invoice→BuyingGroup |
| BGFIRSTADDR | Buying Group first address line | Level3Invoice→BuyingGroup |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|---|--|
| 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 |
| EVTAXAMT | Environmental tax amount | Level3Invoice→ EnvironmentalTax |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|--|--|
| 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 |
| INVEXPCODE | 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 |
| REQCOUNTRY | Country of requestor | Level3Invoice→ Requestor |
| SHIPPEDFROMNAME | Name of shipper | Invoice→ShipFrom |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|---|--------------------------------|
| 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 |
| STATESERVICESTAXAMT | State services tax amount | Level3Invoice→StateServicesTax |
| STATESERVICESTAXEXEMPTCODE | State services tax exempt code | Level3Invoice→StateServicesTax |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|---|--|---------------------------------------|
| 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 |
| L_EVTAXAMT | Environmental tax amount line item | Level3Item→ EnvironmentalTax |
| L_EVTAXEXEMPTCODE | Environmental tax exemption code line item | Level3Item→ EnvironmentalTax |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|--|---------------------------------|
| 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 |
| L_STATESERVICESTAXPERCENT | State service tax rate line item | Level3Item→ StateServicesTax |
| L_TAXTYPE | Tax type line item | Level3Item→TaxType |

TABLE 3.3 Level 3 (commercial) credit card transaction parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|-----------------------|--|--------------------------|
| 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 |
|-----------------------|---|------------------------------------|
| ADDLMSGS | Additional messages | ProcessorResult→AdditionalMessages |
| AMEXID | Unique identifier to track American Express transactions. | ProcessorResult→AMEXID |

TABLE 3.5 Transaction response parameters

| Payflow SDK Parameter | Description | XMLPay Element |
|------------------------------|---|-------------------------------|
| 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 |
| 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 |
| 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 |

TABLE 3.7 Express Checkout request parameters (Continued)

| Express Checkout Parameter | Description | XMLPay Element |
|----------------------------|--|--------------------------|
| 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 |
| 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 |

TABLE 3.7 Express Checkout request parameters (Continued)

| Express Checkout Parameter | Description | XMLPay Element |
|----------------------------|---|---------------------------|
| 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 <i>Payflow Pro Developer's Guide</i> .) | 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 |
| 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 <i>Payflow Pro Developer's Guide</i> .) | 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 |
| 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.

$\text{ExtAmt} = \text{Quantity} * \text{UnitPrice}$. $\text{TotalAmt} = \text{TaxAmt} - \text{DiscountAmt}$

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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- “VerifyEnrollment Response” on page 99

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>BwAQAJVyYAQECQJTMnJgAAAAAA=</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>

```

```

    </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>
          <Tender>
            <Card>
              <CardType>visa</CardType>
            </Card>
          </Tender>
        </Authorization>
      </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>

```

```

<Transactions>
  <Transaction>
    <Authorization>
      <PayData>
        <Invoice>
          <MerchantDescription></MerchantDescription>
          <MerchantServiceNum></MerchantServiceNum>
          <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>
<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>
</XMLPayRequest>

```



```

</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>
      <ACUrl>https://bankacs.bank.com/asurl</ACUrl>
      <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">
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        </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"/>

```

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<choice>
  <element name = "TransactionResults">
    <complexType content = "elementOnly">
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"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">
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      <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>
```

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

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</element>

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

```

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        </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>
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            <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"/>
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    </complexType>
</element>
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        <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 = "IAVSRResult" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element ref = "AVSRResult" 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>

```

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        </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 = "Base64ShalStringType" 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 = "Base64ShalStringType" minOccurs="0" maxOccurs="1" />
            <element name = "XID" type = "Base64ShalStringType" minOccurs="0" maxOccurs="1" />
        </sequence>
    </complexType>
</element>

<simpleType name = "BuyerAuthStatusEnum" base = "string">
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    <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">
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</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" />
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  </complexType>
</element>
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        <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 = "RPPref" type = "RPPrefType" minOccurs="0" maxOccurs="1"/>
<element name = "Status" type = "RPStatusType" minOccurs = "0" maxOccurs = "1"/>
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<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"/>
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<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>
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<element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
</sequence>
<attribute name = "Id" type = "ID"/>
</complexType>
</element>
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  <maxLength value = "12"/>
</simpleType>
<simpleType name = "RPNameType" base = "string">
  <maxLength value = "128"/>
</simpleType>
<simpleType name = "RPDateType" base = "string">
  <maxLength value = "6"/>

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</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>

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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"/>
      <element name = "MerchantServiceNum" type = "string" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "Recurring" type = "boolean" minOccurs = "0" maxOccurs = "1"/>
      <element name = "InvNum" type = "InvNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "OrigInvNum" type = "InvNumType" minOccurs = "0" maxOccurs = "1"/>
      <element name = "Date" type = "date" minOccurs = "0" maxOccurs = "1"/>
      <element name = "OrderDateTime" type = "string" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BillFrom" minOccurs = "0" maxOccurs = "1">
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          <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
          <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
          <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
          <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
          <element name = "URL" type = "uriReference" minOccurs = "0" maxOccurs = "1"/>
        </complexType>
      </element>

      <element name = "BillTo" minOccurs = "0" maxOccurs = "1">
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"1"/>
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          <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
          <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
          <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
          <element name = "Phone2" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
          <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
          <element name = "CustCode" type = "CustCodeType" minOccurs = "0" maxOccurs =
"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 = "ShipCarrier" type = "string" minOccurs = "0" maxOccurs = "1"/>
<element name = "ShipMethod" type = "string" minOccurs = "0" maxOccurs = "1"/>

<element name = "ShipFrom" minOccurs = "0" maxOccurs = "1">
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    <element ref = "Address"/>
    <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
    <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "ShipFromEU" type = "ShipEUType" 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 = "EMail" type = "EMailType" minOccurs = "0" maxOccurs = "1"/>
    <element name = "Phone" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "Phone2" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "Fax" type = "PhoneNumberType" minOccurs = "0" maxOccurs =
"1"/>
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"1"/>
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</element>

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"unbounded"/>
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  </complexType>
</element>
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"1"/>
<element name = "DutyAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
<element name = "TaxAmt" type = "CurrencyAmount" minOccurs = "0" maxOccurs = "1"/>
<element name = "NationalTaxIncl" type = "boolean" minOccurs = "0" maxOccurs = "1"/>
<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"/>
  <element name = "Comment" type = "CommentType" minOccurs = "0" maxOccurs = "1"/>
  <element ref = "Level3Invoice" minOccurs = "0" maxOccurs = "1"/>
<element name = "Memo" type = "string" minOccurs = "0" maxOccurs = "1"/>
<element name = "Custom" type = "string" minOccurs="0" maxOccurs="1"/>
<element name = "OrderDesc" type = "string" minOccurs="0" maxOccurs="1"/>
  <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
  <element ref = "MerchantInfo" minOccurs = "0" maxOccurs = "1"/>

```

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        <element ref = "AdditionalAmounts" minOccurs = "0" maxOccurs = "1"/>
        <element name = "SKU" type = "SKUType" minOccurs = "0" maxOccurs = "1"/>
        <element name = "CustomerHostName" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "CustomerBrowser" type = "string" minOccurs = "0" maxOccurs = "1"/>
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</element>

<element name = "AdditionalAmounts">
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        <element name = "Amount3" type = "AdditionalAmount" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Amount4" type = "AdditionalAmount" minOccurs = "0" maxOccurs = "1"/>
        <element name = "Amount5" type = "AdditionalAmount" minOccurs = "0" maxOccurs = "1"/>
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</element>

<element name = "MerchantInfo">
    <complexType content = "elementOnly">
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        <element name = "MerchantCity" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "MerchantState" type = "string" minOccurs = "0" maxOccurs = "1"/>
        <element name = "MerchantCountryCode" type = "CountryCode" minOccurs = "0" maxOccurs =
"1"/>
        <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"/>
            <element name = "AlternateTaxID" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "BuyingGroup" minOccurs = "0" maxOccurs = "1">
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            </element>
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            <element name = "CardIssue" type = "string" minOccurs = "0" maxOccurs = "1"/>
            <element name = "CountyTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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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>
        </sequence>
    </complexType>
</element>
```

```

        </complexType>
    </element>
    <element name = "CountySalesTax" 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 = "CityTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "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 = "CustomerValueAddedTaxRegNum" type = "string" minOccurs = "0"
maxOccurs = "1"/>
    <element name = "CommCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
    <element name = "EnvironmentalTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
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        </complexType>
    </element>
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= "1"/>
    <element name = "HandlingRate" type = "string" minOccurs = "0" maxOccurs = "1"/>
    <element name = "InvoiceExpirationDate" type = "string" minOccurs = "0" maxOccurs =
"1"/>
    <element name = "LocalTax" 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 = "NationalTax" 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 = "Requestor" minOccurs = "0" maxOccurs = "1">
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        </complexType>

```

```
</element>
<element name = "StateAndLocalTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
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"1"/>
        <element name = "ExemptCode" type = "string" minOccurs = "0" maxOccurs = "1"/>
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    </complexType>
</element>
<element name = "StateSalesTax" type = "Level3TaxType" minOccurs = "0" maxOccurs =
"1">
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"1"/>
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</element>
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"1">
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"1"/>
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        <element name = "Percent" type = "string" minOccurs = "0" maxOccurs = "1"/>
    </complexType>
</element>
<element name = "StateTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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</element>
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</element>
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</element>
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"1"/>
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</sequence>
```

```

    </complexType>
  </element>

  <element name = "Level3Item">
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          </complexType>
        </element>
        <element name = "CityTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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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 = "CountySalesTax" 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"/>
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        </element>
        <element name = "CountyTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
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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 = "EnvironmentalTax" 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 = "LocalTax" 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"/>
          </complexType>
        </element>
        <element name = "StateAndLocalTax" 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"/>
        </complexType>
    </element>
    <element name = "StateTax" type = "Level3TaxType" minOccurs = "0" maxOccurs = "1">
        <complexType content = "elementOnly">
            <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 = "StateGoodsTax" 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"/>
        </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"/>
        </complexType>
    </element>
    <element name = "StateServicesTax" 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"/>
        </complexType>
    </element>
    <element name = "ValueAddedTax" 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"/>
        </complexType>
    </element>
    <element name = "TaxType" type = "string" minOccurs = "0" maxOccurs = "1"/>
    <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
</sequence>
</complexType>
</element>

<element name = "PickUp">
```

```

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

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

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

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

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

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

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

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

  <simpleType name = "PONumType" base = "string">
    <maxLength value = "25"/>
  </simpleType>

  <simpleType name = "DescType" base = "string">
    <maxLength value = "160"/>
  </simpleType>

  <simpleType name = "CommentType" base = "string">
    <maxLength value = "255"/>
  </simpleType>

```

```
<element name = "Item">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "SKU" type = "SKUType" minOccurs = "0" maxOccurs = "1"/>
      <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 = "Base64ShalStringType" 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)>
<!ELEMENT MICR (#PCDATA)>
<!ELEMENT CustomerType (#PCDATA)>
<!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)>
<!ELEMENT CancelURL (#PCDATA)>
<!ELEMENT NotifyURL (#PCDATA)>
<!ELEMENT ReqConfirmShipping (#PCDATA)>
<!ELEMENT NoShipping (#PCDATA)>
<!ELEMENT AddressOverride (#PCDATA)>
<!ELEMENT LocaleCode (#PCDATA)>
```

```
<!ELEMENT PageStyle (#PCDATA)>
<!ELEMENT HeaderImage (#PCDATA)>
<!ELEMENT HeaderBorderColor (#PCDATA)>
<!ELEMENT HeaderBackColor (#PCDATA)>
<!ELEMENT PayflowColor (#PCDATA)>
<!ELEMENT ButtonSource (#PCDATA)>
<!ELEMENT MerchantSessionID (#PCDATA)>
<!ELEMENT PayPal ((Email?, PayerID?, Token?, ReturnURL?, CancelURL?, NotifyURL?,
ReqConfirmShipping?, NoShipping?, AddressOverride?, LocaleCode?, PageStyle?,
HeaderImage?, HeaderBorderColor?, HeaderBackColor?, PayflowColor?, ButtonSource?,
MerchantSessionID?, ExtData*))>
<!ELEMENT Tender ((ACH| Card| Check| Debit| PayPal))>
<!ELEMENT PayData ((Invoice, Tender))>
<!ELEMENT PKCS7Signature (#PCDATA)>
<!ELEMENT PayDataAuth ((PKCS7Signature| Signature))>
<!ELEMENT Vendor (#PCDATA)>
<!ELEMENT Partner (#PCDATA)>
<!ELEMENT Authorization ((PayData, PayDataAuth?, ExtData*))>
<!ELEMENT PNRef (#PCDATA)>
<!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*))>
```

```
<!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|
RepeatSale| GetStatus| VerifyEnrollment| ValidateAuthentication| TransactionUpdate|
SetExpressCheckout| GetExpressCheckout| DoExpressCheckout)), Verbosity?,
BrowserUserAgent?, BrowserTime?, BrowserCountryCode?)>
<!ATTLIST Transaction Id CDATA #IMPLIED>
<!ATTLIST Transaction CustRef CDATA #IMPLIED>
<!ELEMENT Transactions (Transaction+)>
<!ELEMENT Start (#PCDATA)>
<!ELEMENT Term (#PCDATA)>
<!ELEMENT PayPeriod (#PCDATA)>
<!ELEMENT MaxFailPayments (#PCDATA)>
<!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)>

```

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

<!ELEMENT JavaVersion (#PCDATA)>

<!ELEMENT Proxy (#PCDATA)>

<!ELEMENT VersionIntegrationTracking ((IntegrationType?, IntegrationVersion?,
WrapperType?, WrapperVersion?, OSName?, OSArchitecture?, OSVersion?, JavaVersion?,
Proxy?, ExtData*))>

<!ELEMENT RequestData ((Vendor, Partner, (Transactions| RecurringProfiles|
AccountUpdateRequests), VersionIntegrationTracking?))>

<!ELEMENT User (#PCDATA)>

<!ELEMENT UserDomain (#PCDATA)>

<!ELEMENT Password (#PCDATA)>

<!ELEMENT UserPass ((User, UserDomain?, Password))>

<!ELEMENT RequestAuth ((UserPass| Signature))>

<!ELEMENT XMLPayRequest ((RequestData, RequestAuth))>
<!ATTLIST XMLPayRequest version CDATA #IMPLIED>
<!ATTLIST XMLPayRequest request_id CDATA #IMPLIED>
<!ATTLIST XMLPayRequest response_id CDATA #IMPLIED>
<!ATTLIST XMLPayRequest Timeout CDATA #IMPLIED>

<!ELEMENT Result (#PCDATA)>

<!ELEMENT AVSResult (#PCDATA)>

<!ELEMENT CVResult (#PCDATA)>

<!ELEMENT CardSecure (#PCDATA)>

<!ELEMENT ResponseText (#PCDATA)>

<!ELEMENT AdditionalMessages (#PCDATA)>

<!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)>

<!ELEMENT StreetMatch (#PCDATA)>

<!ELEMENT ZipMatch (#PCDATA)>

<!ELEMENT HostURL (#PCDATA)>

<!ELEMENT OrigResult (#PCDATA)>

<!ELEMENT TrStatus (#PCDATA)>

<!ELEMENT ReceiptURL (#PCDATA)>

<!ELEMENT ACHStatus (#PCDATA)>

<!ELEMENT OrigPNRef (#PCDATA)>

<!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?,
Name?, Start?, Term?, End?, PayPeriod?, MaxFailPayments?, RetryNumDays?, EMail?,
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,
AUResponseText, AUSubmitDate?, Tender?, ExtData*))>

<!ELEMENT AccountUpdateResults (AccountUpdateResult+)>

```

```
<!ELEMENT HTTPCommitResult ((Result, Message?, ExtData*))>
<!ELEMENT HTTPCommitResults (HTTPCommitResult+)>
<!ELEMENT ResponseData ((Vendor, Partner, (TransactionResults|
RecurringProfileResults| AccountUpdateResults| HTTPCommitResults))>
<!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 Pro 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 Pro 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 Payflow Pro client. |
| 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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