



# VeriSign Payment Services

XMLPay 4.2 Core Specification



Customer Support: +1-650-426-3535  
or 1-800-579-2848

[support@verisign.com.au](mailto:support@verisign.com.au)  
VeriSign Australia Pty Ltd

## **VeriSign Payment Services XMLPay 4.2 Core Specification**

VeriSign Australia Pty Ltd

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# Summary of Revisions

## VeriSign Payment Services XMLPay 4.2 Core Specification

### VeriSign, Inc. 00016785

The following changes were made to this document since the previous revision:

<b>Throughout Document</b>	Fixed minor format and tag errors: <ul style="list-style-type: none"><li>■ Changed all instances of Timeout=30 to Timeout="30".</li><li>■ Added missing &lt;/schema&gt; tag to end of "XMLPay Schema" on page 89.</li><li>■ Updated DTD and XML schema.</li></ul>
<b>Chapter 3, "XMLPay Syntax"</b>	Added description of additional elements/attributes to TransactionResults.

### VeriSign, Inc. 00000016/Rev. 8

The following changes were made to this document since the previous revision:

Upgraded to XMLPay 4.2 specifications	<p>This document has been updated to reflect the XMLPay 4.2 specification. This new specification includes new name/value pairs and elements, as described in this document.</p> <p>These changes support new features for Level 3 Corporate Purchase Card Data, Fraud Protection Service, Recurring Billing, International AVS, and Raw Processor Response Codes.</p> <p>You must set the XMLPayRequest version attribute to "2.0" to enable the new functionality described in this document (the default is "1").</p>
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# 1. Introduction

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.

## About this Document

This document is organized as follows:

- Chapter 2, “XMLPay Overview” describes XML and XMLPay, presenting processing models, networking, messaging and related specifications.
- Chapter 3, “XMLPay Syntax” presents the syntax for transaction requests, responses, and receipts using a simplified notation.
- Chapter 5, “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 6, “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, “VeriSign Transaction Results” lists VeriSign transaction result codes and response messages as well as Address Verification Service (AVS) result codes.

## Related Document

*VeriSign Payment Services Payflow Pro Developer’s Guide*—VeriSign Payflow Pro is a high performance TCP/IP-based Internet payment gateway solution. Payflow Pro is pre-integrated with leading e-commerce solutions and is also available as a downloadable software development kit (SDK).

## 2. XMLPay Overview

### About XML

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

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

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

### Benefits of XML

The main benefits of XML are that it:

- Allows text annotation
- Presents text, data, and content to applications as a structured document
- Facilitates integration of diverse applications

In addition to these benefits, XML is easy to:

- Read (all text)
- Parse and validate
- Search for content
- Produce

## Well-formed XML Document

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

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

### Example 1

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

### Example 2

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

## Using XMLPay

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

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

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

---

**Note** For specific examples of how to submit XML documents using the Payflow Pro client API, see the Payflow Pro SDK 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:

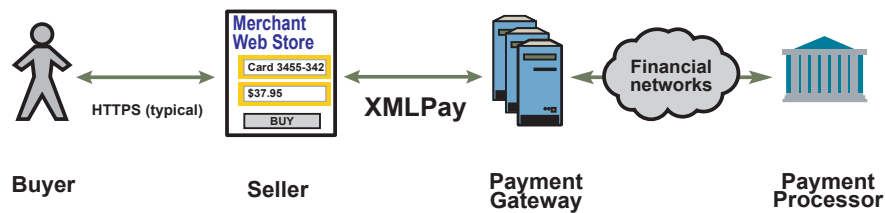
- Funds authorization and capture
- Sales and repeat sales
- Voiding of transactions

### 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.



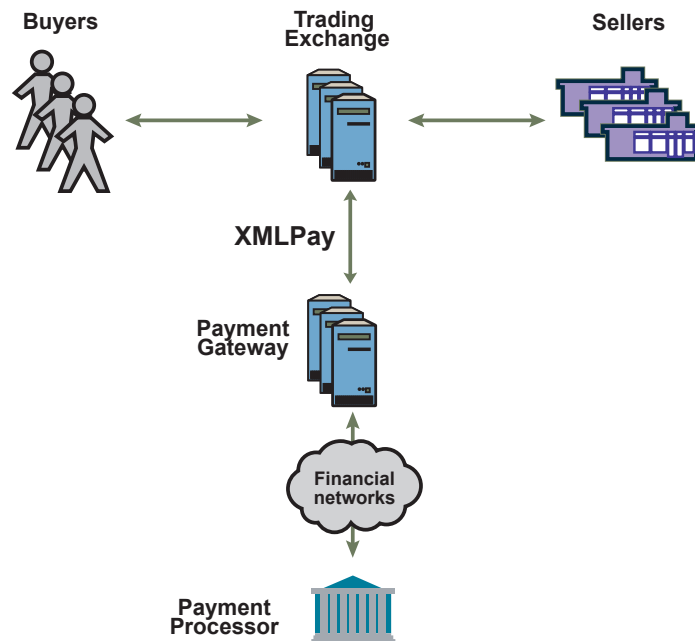
The Seller uses XMLPay to forward the Buyer's payment information to a Payment Processor. The Seller formats an **XMLPayRequest** and submits it either directly to an XMLPay-compliant payment processor or, as pictured, indirectly via an XMLPay-compliant Payment Gateway. Responses have the type **XMLPayResponse**.

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.



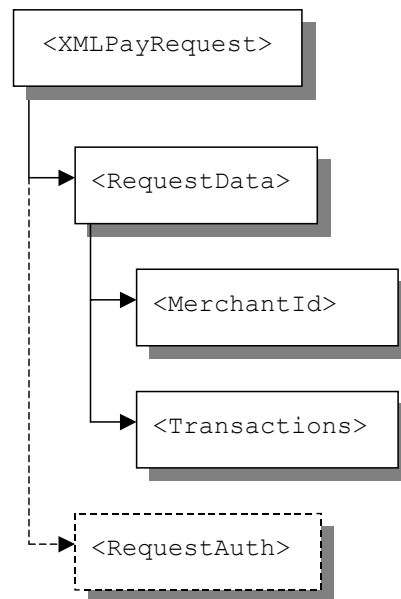
In this way, the Trading Exchange links payment execution to other XML-based communications between Buyers and Sellers such as Advance Shipping Notice delivery, Purchase Order communication, or other B2B communication functions.

## 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 3, “XMLPay Syntax” for a detailed description of request documents.



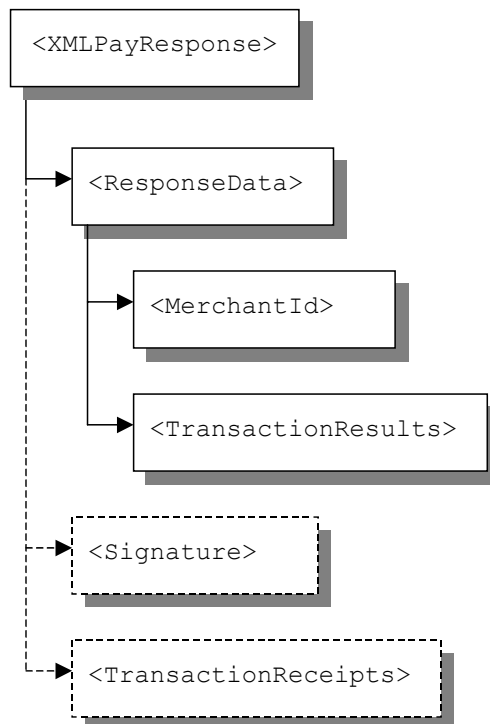
## XMLPayResponse

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 3, “XMLPay Syntax” for a detailed description of response documents.



## 3. 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>
```

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

---

**Note** The Payflow Pro SDK download package provides specific examples of XML documents using the Payflow Pro client API.

---

## The XMLPayRequest Document (Transactions)

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

Attribute	Description
<b>Vendor</b>	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.
<b>Partner</b>	Identifies the submitting party.
<b>Transaction</b>	Defined on page 12. XMLPay supports up to 32 transactions per XMLPay document submission.
<b>RequestAuth</b>	Defined on page 17.
<b>Timeout</b>	Optional attribute that puts an upper bound on the time that the server will spend processing the request.  Multiple transactions submitted within a single request execute independently of one another.  Results are returned for any transactions in a request that finishes before a time-out occurs.

### Transaction

XMLPay supports up to 32 transactions per XMLPay document submission.

```
<Transaction Id=? CustRef=?>
  (Authorization|Capture|Sale|Credit|Void|
  ForceCapture|RepeatSale|GetStatus|
  VerifyEnrollment|ValidateAuthentication)
```

```
</Transaction>
```

Attribute	Description
<b>Id</b>	<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><b>Id</b> 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 <b>Id</b> attribute is provided in a transaction, it will be included in the matching <b>TransactionResult</b> in the resultant <b>XMLPayResult</b>.</p> <p>Similarly, <b>CustRef</b> 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>
  (PayDataAuth) ?
  (ExtData) *
</Authorization>
```

Attribute	Description
<b>PayData</b>	Specifies the details of the purchase, within Invoice, as well as the payment <b>Tender</b> to use.
<b>ExtData</b>	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 **PNRef**, into the merchant's account.

```
<Capture>
  (PNRef)
  (Invoice) ?
```

```
(ExtData) *
</Capture>
```

Attribute	Description
<b>Invoice</b>	An updated Invoice may optionally be provided, specifying any changes in the purchase details from the original invoice in the reference authorization.
<b>ExtData</b>	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>
  (PayDataAuth) ?
  (ExtData) *
</Sale>
```

Attribute	Description
<b>PayData</b>	Specifies the details of the purchase, within <b>Invoice</b> , as well as the payment <b>Tender</b> to use.
<b>ExtData</b>	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
<b>PNRef</b>	The transaction to be credited is identified by <b>PNRef</b> . A credit may be run without a <b>PNRef</b> by providing the <b>Tender</b> for the account to be credited and Invoice for the amount.
<b>Invoice</b>	In the case of a partial credit, you must provide <b>Invoice</b> and provide details on the items being returned.
<b>ExtData</b>	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
<b>PNRef</b>	The transaction to be cancelled is identified by <b>PNRef</b> . If the referenced transaction has already been processed, the void fails.

### 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>
  (PayDataAuth) ?
  (AuthCode)
  (ExtData) *
```

</ForceCapture>

Attribute	Description
<b>AuthCode</b>	Authorization code received out-of-band.
<b>PayData</b>	Specifies the details of the purchase, within Invoice, as well as the payment <b>Tender</b> to use.
<b>ExtData</b>	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
<b>PNRef</b>	The transaction to query is identified by <b>PNRef</b> .
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

### VerifyEnrollment Transaction

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

Refer to *VeriSign Fraud Protection Services Guide* on the sequence of steps involved in performing a Buyer Authentication transaction. This transaction is submitted only to the VeriSign Buyer Authentication server and not to the core OLTP server.

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



```
</VerifyEnrollment>
```

Attribute	Description
<b>PayData</b>	Specifies the details of the credit card used in the purchase.
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

### ValidateAuthentication Transaction

For VeriSign's Buyer Authentication Service, this transaction validates the signature on the `PARes` data returned by the issuing bank and parses the authentication information. Refer to *VeriSign Fraud Protection Services Guide* on the sequence of steps involved in performing a Buyer Authentication transaction.

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

Attribute	Description
<b>PARes</b>	The authentication data returned by Issuer's ACS.
<b>ExtData</b>	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
<b>User</b>	String identifier assigned to a user.
<b>UserDomain</b>	Names a partner or a vendor under whose auspice a transaction is being submitted.
<b>Password</b>	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
<b>Vendor</b>	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.
<b>Partner</b>	Identifies the submitting party.
<b>RecurringProfile</b>	Defined on page 19.
<b>RequestAuth</b>	Defined on page 17.
<b>Timeout</b>	Optional attribute that puts an upper bound on the time that the server will spend processing the request.  Multiple transactions submitted within a single request execute independently of one another.  Results are returned for any transactions in a request that complete before a timeout occurs.

## RecurringProfile

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

Attribute	Description
<b>Id</b>	<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><b>Id</b> 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 <b>Id</b> attribute is provided in a transaction, it will be included in the matching <b>TransactionResult</b> in the resultant <b>XMLPayResult</b>.</p> <p>Similarly, <b>CustRef</b> 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
<b>RPData</b>	Describes recurring profile details. Defined on page 29.
<b>Tender</b>	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
<b>RPData</b>	Describes recurring profile details. Defined on page 29.
<b>Tender</b>	Specifies type of payment
<b>ProfileID</b>	Profile ID of the profile that you want to modify.

### Cancel Recurring Profile

Cancel (deactivate) a recurring profile.

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

Attribute	Description
<b>ProfileID</b>	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
<b>RPData</b>	Describes recurring profile details. Defined on page 29.
<b>Tender</b>	Specifies type of payment
<b>ProfileID</b>	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
<b>RPData</b>	Describes recurring profile details. Defined on page 29.
<b>Tender</b>	Specifies type of payment
<b>ProfileID</b>	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
<b>ProfileID</b>	Profile ID of the profile you want to review.

## Core Structures

### PayData

```

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

```

Attribute	Description
<b>Invoice</b>	Describes the details of a purchase. Defined on page 22.
<b>Tender</b>	Describes the payment instrument. Defined on page 26.

### 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>
  (InvNum) ?
  (Date) ?
  <BillFrom>
    (Name) ?
    (Address) ?
    (EMail) ?
    (Phone) ?
    (Fax) ?
    (URL) ?
  </BillFrom>
  <BillTo>
    (Name) ?
    (Address) ?
    (EMail) ?
    (Phone) ?
    (Fax) ?
    (CustCode) ?
    (PONum) ?
    (Tax
  ) ?
  </BillTo>
  <ShipFrom>
    (Name) ?
    (Address) ?
    (EMail) ?
    (Phone) ?
    (Fax) ?
  </ShipFrom>
  <ShipTo>
    (Name) ?
    (Address) ?
    (EMail) ?
    (Phone) ?
    (Fax) ?
  </ShipTo>
  (Description) *
  (Items) ?
  (DiscountAmt) ?
  (ShippingAmt) ?
```

```

(FreightAmt)?
(HandlingAmt)?
(DutyAmt)?
(TaxAmt)?
(NationalTaxIncl)?
(TotalAmt)?
(Comment)?
(ExtData)*
</Invoice>

```

Attribute	Description
<b>InvNum</b>	Invoice number.
<b>Date</b>	Invoice date: YYYYMMDD, ISO 8601.
<b>BillFrom Name, Address, EMail, Phone, Fax, and URL</b>	information about the biller.
<b>BillTo Name, Address, EMail, Phone, and Fax</b>	information about the buyer.
<b>BillTo CustCode</b>	Code, chosen by the merchant, that may be included in the invoice to identify the customer (buyer).
<b>BillTo PONum</b>	Buyer's purchase order number.
<b>BillTo TaxExempt</b>	Indicates that the buyer is a tax exempt entity.
<b>ShipFrom and ShipTo</b>	Information about the shipping addresses, if different from <b>BillFrom</b> and <b>BillTo</b> respectively.
<b>Description</b>	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.
<b>Items</b>	Full line-item breakdown of the purchase. Defined on page 24.
<b>DiscountAmt</b>	Discount to be applied to the item subtotal.
<b>ShippingAmt</b>	Total of shipping and handling charges. For separate shipping and handling amounts, use <b>FreightAmt</b> and <b>HandlingAmt</b> , respectively.
<b>FreightAmt</b>	Shipping charges without handling included.
<b>HandlingAmt</b>	Handling charges without shipping included.
<b>DutyAmt</b>	Duty fees (if applicable)
<b>TaxAmt</b>	Total of all taxes.

Attribute	Description
<b>NationalTaxIncl</b>	Boolean which when true, indicates that the national tax is included in the <b>TaxAmt</b> .
<b>TotalAmt</b>	Grand total ( <b>item subtotal - DiscountAmt + ShippingAmt (or HandlingAmt + FreightAmt) + DutyAmt+ TaxAmt</b> ).
<b>Comment</b>	Free-form comment about the purchase.
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

## 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
<b>Number</b>	Line number for the item in the invoice.
<b>SKU</b>	Merchant's product code for the item (stock keeping unit).
<b>UPC</b>	Item's universal product code.
<b>Description</b>	Item's description.
<b>Quantity</b>	Number of units of this item. <b>UnitOfMeasurement</b> provides the units for Quantity (ISO 31).
<b>UnitPrice</b>	Cost of each unit.
<b>DiscountAmt</b>	Discount to be applied to this line item.
<b>TaxAmt</b>	Total of all taxes for this line item.
<b>ShippingAmt</b>	Total of shipping and handling charges. For separate shipping and handling amounts, use <b>FreightAmt</b> and <b>HandlingAmt</b> , respectively.
<b>FreightAmt</b>	Shipping charges without handling included.
<b>HandlingAmt</b>	Handling charges without shipping included.
<b>TotalAmt</b>	Total amount including tax and discount for this line item: (Quantity * UnitPrice) + <b>TaxAmt</b> - <b>DiscountAmt</b> .
<b>PickUp Address, Time, Date, and RecordNumber</b>	Shipment pickup information
<b>Delivery Date and Time</b>	Expected delivery date and time.
<b>CostCenterNumber</b>	Purchaser's department number to which the item will be billed.
<b>TrackingNumber</b>	Shipper's tracking code
<b>CatalogNumber</b>	Merchant's product code (SKU may also be used for the same purpose).

Attribute	Description
<b>UNSPSCCode</b>	Universal Standard Products and Services Classification. Global marketplace classification system developed and managed by the Electronic Commerce Code Management Association (ECCMA).
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

## Address

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

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

## Tender

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

### ACH

ACH (Automated Clearing House) tender detail.

```
<ACH>
  (AcctType)
  (AcctNum)
  (ABA)
  (AuthType)
```

```

    (Prenote) ?
    (ExtData) *
</ACH>

```

Attribute	Description
<b>AcctType</b>	Type of the bank account: checking or savings.
<b>AcctNum</b>	Account number.
<b>ABA</b>	Bank routing number.
<b>AuthType</b>	Method of authorization.
<b>Prenote</b>	Boolean. If <b>Y</b> , 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.
<b>ExtData</b>	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)
  (CNum) ?
  (MagData) ?
  (NameOnCard) ?
  (ExtData) *
</Card>

```

Attribute	Description
<b>CardType</b>	Optional. Identifies the type of card for the merchant's records. Amex, DinersClub, Discover, JCB, MasterCard, or Visa. The server does not use this value, but rather uses the card number to determine the card type.
<b>CardNum</b>	Account number.
<b>ExpDate</b>	Card expiration date: YYYYMM or ISO 8601.

Attribute	Description
<b>CVNum</b>	Card verification number (typically printed on the back of the card, but not embossed on the front).
<b>MagData</b>	Data located on the magnetic strip of a credit card.
<b>NameOnCard</b>	Card holder's name as printed on the card.
<b>ExtData</b>	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
<b>CheckType</b>	Indicates the type of the check: corporate, personal, or government.
<b>CheckNum</b>	Account holder's next unused check number.
<b>MICR</b>	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.
<b>DL</b>	Account holder's driver's license number. <b>XxNnnnnnnn</b> format, where <b>Xx</b> is the state code; <b>Nnnnnnnn</b> is the number
<b>SS</b>	Account holder's social security number.
<b>DOB</b>	Account holder's date of birth YYYYMMDD, ISO 8601
<b>ExtData</b>	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
<b>Name</b>	Account holder's name.
<b>TotalAmt</b>	Dollar amount to be billed.
<b>Start</b>	Beginning (or restarting) date for the recurring billing cycle used to calculate when payments should be made.
<b>Term</b>	Number of payments to be made over the life of the agreement.
<b>PayPeriod</b>	Specifies how often the payment occurs.

Attribute	Description
<b>MaxFailPayments</b>	The number of payment periods (specified by PayPeriod) for which the transaction is allowed to fail before VeriSign cancels a profile.
<b>RetryNumDays</b>	The number of consecutive days that VeriSign should attempt to process a failed transaction until Approved status is received.
<b>EMail</b>	Customer e-mail address.
<b>CompanyName</b>	Company name for this profile.
<b>Comment</b>	Free-form comment about the purchase.
<b>OptionalTrans</b>	Defines an optional Authorization for validating the account information or for charging an initial fee.
<b>OptionalTransAmt</b>	Amount of the Optional Transaction.
<b>BillTo Name, Address, Phone, and Fax</b>	Information about the buyer.
<b>ShipTo Name, Address, Phone, and Fax</b>	Information about the shipping addresses, if different from <b>BillTo</b> .
<b>OrigProfileID</b>	Profile ID of the profile that gets the action.
<b>PaymentNum</b>	Payment number identifying the failed payment to be retried.
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

## ExtData

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

Attribute	Description
<b>Name</b>	Name of the extended data element.
<b>Value</b>	Value of the extended data element.

## The XMLPayResponse Document (Transactions)

```
<XMLPayResponse>
  <ResponseData>
    (Vendor)
    (Partner)
```

```

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

```

Attribute	Description
<b>Vendor</b>	Identifies the merchant of record for the transaction within the payment processing network.
<b>Partner</b>	Identifies the partner who submitted the transaction on behalf of the vendor.
<b>TransactionResult</b>	Defined on page 31.
<b>Signature</b>	Optional signature over <b>ResponseData</b> , 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).
<b>TransactionReceipts</b>	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)?
    (ExtData)*
</TransactionResult>

```

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



Element	Description
<b>OrigPNRef</b>	The PNRef value associated with the original transaction (returned by Inquiry transaction).
<b>OrigMessage</b>	The Message value associated with the original transaction (returned by Inquiry transaction).
<b>ReceiptURL</b>	URL returned by the payment processor, if any, to use in referring to a receipt for the transaction.
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).

Attribute	Description
<b>Result</b>	Number that indicates outcome of the transaction (see Appendix C, "VeriSign Transaction Results").
<b>CustRef</b>	Reference string that identifies the customer.
<b>Duplicate</b>	Identify if the transaction has been run before.

### AVSResult

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

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

## The XMLPayResponse Document (Recurring Profiles)

```
<XMLPayResponse>
  <ResponseData>
    (Vendor)
    (Partner)
    <RecurringProfileResults>
      (RecurringProfileResult)+
```

```

        </RecurringProfileResults>
    </ResponseData>
    (Signature)?
    (TransactionReceipts)?
</XMLPayResponse>

```

Attribute	Description
<b>Vendor</b>	Identifies the merchant of record for the transaction within the payment processing network.
<b>Partner</b>	Identifies the partner who submitted the transaction on behalf of the vendor.
<b>RecurringProfileResult</b>	Defined on page 35.
<b>Signature</b>	Optional signature over <b>ResponseData</b> , 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).
<b>TransactionReceipts</b>	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
<b>Status</b>	Status of the transaction.
<b>AuthenticationId</b>	Message id for the response.

Attribute	Description
<b>PAReq</b>	Payer authentication request returned if cardholder is enrolled.
<b>ACSTurl</b>	The issuer ACS URL at which the cardholder would authenticate by providing the password.
<b>ECI</b>	The Electronic Commerce Indicator value that implies the authentication outcome. Defaulted to 7 since cardholder has not authenticated yet.
<b>CAVV</b>	Cardholder Authentication Verification Value.
<b>XID</b>	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
<b>Result</b>	Number that indicates outcome of the transaction (see Appendix C, "VeriSign Transaction Results").
<b>Message</b>	Descriptive message describing <b>Result</b> .
<b>ProfileID</b>	Profile ID of the profile that gets the action.
<b>RPPref</b>	Identifier assigned to the transaction by the payment processing network.
<b>TransactionResult</b>	
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).
<b>Id</b>	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
<b>Result</b>	Number that indicates outcome of the transaction (see Appendix C, "VeriSign Transaction Results").
<b>Message</b>	Descriptive message describing <b>Result</b> .
<b>ProfileID</b>	Profile ID of the profile that gets the action.
<b>RPPref</b>	Identifier assigned to the transaction by the payment processing network.
<b>Status</b>	Current status of the profile.
<b>Name</b>	Account holder's name.
<b>Start</b>	Beginning (or restarting) date for the recurring billing cycle used to calculate when payments should be made.
<b>Term</b>	Number of payments to be made over the life of the agreement.

Attribute	Description
<b>End</b>	Date that the last payment is due. Present only if this is not an unlimited-term subscription.
<b>PayPeriod</b>	Specifies how often the payment occurs.
<b>MaxFailPayments</b>	The number of payment periods (specified by PayPeriod) for which the transaction is allowed to fail before VeriSign cancels a profile.
<b>RetryNumDays</b>	The number of consecutive days that VeriSign should attempt to process a failed transaction until Approved status is received.
<b>EMail</b>	Customer e-mail address.
<b>CompanyName</b>	Company name for this profile.
<b>Amt</b>	Dollar amount (US dollars) to be billed.
<b>PaymentsLeft</b>	Number of payments left to be billed.
<b>NextPayment</b>	Date that the next payment is due
<b>AggregateAmt</b>	Amount collected so far for scheduled payments.
<b>AggregateOptionalTransAmt</b>	Amount collected through sending optional transactions
<b>NumFailedPayments</b>	Number of payments that failed.
<b>Tender</b>	Specifies payment type.
<b>BillTo</b>	Information about the buyer.
<b>ShipTo</b>	Information about the shipping addresses, if different from <b>BillTo</b> .
<b>ExtData</b>	Optional element that may carry extended data (outside the syntax of the XMLPay schema).





## 4. XMLPay Payflow Elements

The following tables define the existing Payflow Pro 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 *VeriSign Payflow Pro Developer's Guide*.

### General Transaction Parameters

The following are general parameters accepted in Payflow Pro transactions.

Table 4-1 Retail credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
COMMCARD	Type of commercial card account number sent.	Card→CommercialCard
COUNTRYCODE	Destination country code	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

Table 4-1 Retail credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
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 Pro credit card transactions.

### Retail Credit Card Transaction Parameters

Table 4-2 lists retail credit card transaction parameters.

Table 4-2 Retail credit card transaction parameters

Payflow Pro 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.	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



Table 4-2 Retail credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
COMMENT1	Merchant-defined value for reporting and auditing purposes.	Comment
COMMENT2	Merchant-defined value for reporting and auditing purposes.	ExtData
COUNTRY	Destination country code.	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.	Description
DESC1-4	Up to 4 additional lines describing the transaction.	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	E-mail 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

Table 4-2 Retail credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
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.	HandlingAmt
INVNUM	Merchant invoice number.	InvNum
INVOICEDATE	Invoice date.	Date
L_AMT	Total line item amount including tax and discount.	TotalAmt
L_CARRIERSHIPMENTNUM	Shipment number.	ShipmentNumber
L_CATALOGNUM	Merchant's product code.	CatalogNumber
L_COSTCENTERNUMBER	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.	Description
L_DISCOUNT	Discount per line item.	DiscountAmt
L_FREIGHTAMT	Line item freight amount.	FreightAmt
L_HANDLINGAMT	Line item handling amount.	HandlingAmt
L_PICKUPCITY	Pickup city.	City
L_PICKUPCOUNTRY	Pickup record number.	Country
L_PICKUPDATE	Pickup date.	Date
L_PICKUPRECORDNUMBER	Pickup record number.	RecordNumber

Table 4-2 Retail credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
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.	Quantity
L_SKU	Line item SKU identifier.	SKU
L_TAXAMT	Line item tax amount.	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 (Y or N).	NationalTaxIncl
ORDERDATE	Order date.	ExtData
ORIGID	The VeriSign Reference ID (PNREF) returned for all transactions.	PNRef
PARTNER	The authorized VeriSign Reseller that registered the merchant for the Payflow Pro service.	Partner
PHONENUM	Telephone number.	Phone
PONUM	Specified by the cardholder to identify the order. Usually used as a Purchase Order number.	
PRENOTE	Identifies the transaction as an authorization for future transactions.	Prenote

Table 4-2 Retail credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
PWD	The password defined when registering for the account.	Password
RECURRING	Identifies the transaction as recurring.	ExtData
SHIPFROMZIP	Ship-from postal code.	Zip
SHIPTOCITY	Ship-to city.	City
SHIPTOFIRSTNAME	Ship-to name.	Name
SHIPTOSTATE	Ship-to state.	State
SHIPTOSTREET	Ship-to street.	Street
SHIPTOZIP	Ship-to postal code.	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.	TaxAmt
TAXEXEMPT	Tax exempt status.	TaxExempt
TENDER	The method of payment.	Tender

Table 4-2 Retail credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
TRXTYPE	The type of transaction. For XMLPay: <ul style="list-style-type: none"> <li>■ Authorization</li> <li>■ Capture</li> <li>■ Sale</li> <li>■ Credit</li> <li>■ Void</li> <li>■ ForceCapture</li> <li>■ RepeatSale</li> <li>■ GetStatus</li> </ul>	XMLPay transaction type
USER	Login ID defined when registering for the Payflow account.	UserName
VENDOR	Vendor ID defined when registering for the Payflow account.	Vendor
ZIP	The cardholder's postal code.	Zip

### Level 3 (Commercial) Credit Card Transaction Parameters

Table 4-3 lists level 3 (commercial) credit card transaction parameters.

Table 4-3 Level 3 (commercial) credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
ALLTAXEXEMPTCODE	Tax exempt code	Level3Invoice→AllTax
ALLTAXPERCENT	Tax rate	Level3Invoice→AllTax
ALLTAXAMT	Tax amount	Level3Invoice→AllTax
ALTERNATETAXAMT	Alternate tax amount	Level3Invoice→AlternateTaxAmount
ALTERNATETAXID	Alternate tax ID number	Level3Invoice→AlternateTaxID

Table 4-3 Level 3 (commercial) credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
BGNAME	Buying Group name	Level3Invoice→Buying Group
BGFIRSTADDR	Buying Group first address line	Level3Invoice→Buying Group
BGSECONDADDR	Buying Group second address line	Level3Invoice→Buying Group
BGCITY	Buying Group city	Level3Invoice→Buying Group
BGSTATE	Buying Group state	Level3Invoice→Buying Group
BGZIP	Buying Group zip code	Level3Invoice→Buying Group
BGCOUNTRY	Buying Group country	Level3Invoice→Buying Group
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→County Tax
COUNTYTAXEXEMPTCODE	County tax exempt code	Level3Invoice→County Tax
COUNTYTAXPERCENT	County tax rate	Level3Invoice→County Tax
COUNTYSALESTAXAMT	County sales tax amount	Level3Invoice→County SalesTax
COUNTYSALESTAXEXEMPTCODE	County sales tax exempt code	Level3Invoice→County SalesTax
COUNTYSALESTAXPERCENT	County sales tax amount	Level3Invoice→County SalesTax
CITYTAXAMT	City tax amount	Level3Invoice→CityTax

Table 4-3 Level 3 (commercial) credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
CITYTAXEXEMPTCODE	City tax exempt code	Level3Invoice→CityTax
CITYTAXPERCENT	City tax rate	Level3Invoice→CityTax
COMMCODE	Commercial code for business cards (not typically used)	Level3Invoice→Comm Code
CUSTVATREGNUM	Customer value added tax registration number	Level3Invoice→CustomerValueAddedTaxRegNum
EVTAXAMT	Environmental tax amount	Level3Invoice→EnvironmentalTax
EVTAXEXEMPTCODE	Environmental tax exempt code	Level3Invoice→EnvironmentalTax
EVTAXPERCENT	Environmental tax rate	Level3Invoice→EnvironmentalTax
FREIGHTRATE	Rate charged for shipping	Level3Invoice→Freight Rate
GENERICPRODDESC	Generic product description	Level3Invoice→Generic ProductDescription
HANDLINGRATE	Rate charged for handling	Level3Invoice→HandlingRate
INVEXPDATE	Invoice expiration date	Level3Invoice→Invoice ExpirationDate
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	

Table 4-3 Level 3 (commercial) credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
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
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



Table 4-3 Level 3 (commercial) credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
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
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

Table 4-3 Level 3 (commercial) credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
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_COUNTYSALES TAXAMT	County sales tax amount line item	Level3Item→CountySalesTax
L_COUNTYSALES TAXEXEMPTCODE	County sales tax exemption code line item	Level3Item→CountySalesTax
L_COUNTYSALES TAXPERCENT	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 4-3 Level 3 (commercial) credit card transaction parameters

<b>Payflow Pro Parameter</b>	<b>Description</b>	<b>XMLPay Element</b>
L_EVTAXPERCENT	Environmental tax rate line item	Level3Item→Environm entalTax
L_LOCALTAXAMT	Local tax amount line item	Level3Item→LocalTax
L_LOCALTAXEXEM PTCODE	Local tax exemption code line item	Level3Item→LocalTa
L_LOCALTAXPERC ENT	Local tax rate line item	Level3Item→LocalTa
L_STATEANDLOCA LTAXAMT	State and local tax amount line item	Level3Item→StateAndL ocalTax
L_STATEANDLOCA LTAXEXEMPTCOD E	State and local tax exemption code line item	Level3Item→StateAndL ocalTax
L_STATEANDLOCA LTAXPERCENT	State and local tax rate line item	Level3Item→StateAndL ocalTax
L_STATETAXAMT	State tax amount line item	Level3Item→StateTax
L_STATETAXEXEM PTCODE	State tax exemption code line item	Level3Item→StateTax
L_STATETAXPERC ENT	State tax rate line item	Level3Item→StateTax
L_STATEGOODSTA XAMT	State goods tax amount line item	Level3Item→StateGood sTax
L_STATEGOODSTA XEXEMPTCODE	State goods tax exemption code line item	Level3Item→StateGood sTax
L_STATEGOODSTA XPERCENT	State goods tax rate line item	Level3Item→StateGood sTax
L_STATESALESTA XAMT	State sales tax amount line item	Level3Item→StateSale sTax
L_STATESALESTA XEXEMPTCODE	State sales tax exemption code line item	Level3Item→StateSale sTax
L_STATESALESTA XPERCENT	State sales tax rate line item	Level3Item→StateSale sTax

Table 4-3 Level 3 (commercial) credit card transaction parameters

Payflow Pro Parameter	Description	XMLPay Element
L_STATESERVICE STAXAMT	State service tax amount line item	Level3Item→StateServicesTax
L_STATESERVICE STAXEXEMPTCODE	State service tax exemption code line item	Level3Item→StateServicesTax
L_STATESERVICE STAXPERCENT	State service tax rate line item	Level3Item→StateServicesTax
L_TAXTYPE	Tax type line item	Level3Item→TaxType
L_VATAXAMT	Value added tax amount line item	Level3Item→ValueAddedTax
L_VATAXEXEMPTCODE	Value added tax exemption code line item	Level3Item→ValueAddedTax
L_VATAXPERCENT	Value added tax rate line item	Level3Item→ValueAddedTax

## Buyer Authentication Transaction Parameters

Table 4-4 lists the buyer authentication transaction parameters.

Table 4-4 Transaction response parameters

Payflow Pro 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 4-5 lists the parameters returned for a credit card transaction.

Table 4-5 Transaction response parameters

Payflow Pro Parameter	Description	XMLPay Element
ADDLMSGGS	Additional messages	ProcessorResult→AdditionalMessages
AUTHCODE	Returned for Sale Authorization.	AuthCode
AVSADDR	AVS address verification response.	AVSResult
AVSZIP	AVS ZIP code verification response.	AVSResult
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	VeriSign 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
PROCCARDS ECURE	Raw card secure value from processor	ProcessorResult→CardSecure
RRN	Retrieval reference number (typically not passed to merchant)	ProcessorResult→RRN
RESPTEXT	Text response returned from processor (for example, <i>Approval</i> )	ProcessorResult→ResponseText
RESULT	The outcome of the attempted transaction.	Result

Table 4-5 Transaction response parameters

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

## Fraud Prevention Service Transaction Parameters

Table 4-6 lists the parameters accepted in fraud protection service transactions.

Table 4-6 Transaction response parameters

Payflow Pro Parameter	Description	XMLPay Element
UPDATEACTION	Customer's browser information	
BROWSERUSERAGENT	Customer's browser information	Transaction→BrowserUserAgent
BROWSERTIME		Transaction→BrowserTime
BROWSERCOUNTRYCODE	Code identifying country of customer's browser	Transaction→BrowserCountryCode
BILLTOSTREET2	Billing address	BillTo→Address→Street2
BILLTOPHONE2	Billing address	BillTo→Phone2
SHIPTOSTREET2	Destination address	ShipTo→Address→Street2
SHIPTOPHONE	Destination address	ShipTo→Phone
SHIPTOPHONE2	Destination address	ShipTo→Phon2
SHIPTOEMAIL	Destination address	ShipTo→EMail

Table 4-6 Transaction response parameters

Payflow Pro Parameter	Description	XMLPay Element
SHIPTOCOUNTRY	Destination address	ShipTo→Address→Country
SHIPCARRIER	Shipping carrier	Invoice→ShipCarrier
SHIPMETHOD	Shipping method	Invoice→ShipMethod

## ACH Transaction Parameters (Norwest)

Table 4-6 lists the ACH transaction parameters. These parameters are specific to Norwest.

Table 4-7 Transaction response parameters

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







## 5. 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 (required elements for sale are in **bold text**):

- 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 (required elements for sale/authorization are in **bold text**):

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

### Purchase Card Level I

Level I purchase cards use the following additional data:

- BillTo.PONum
- Invoice.TaxAmt

### Purchase Card Level II

Level II purchase cards use the following additional data:

- BillTo.TaxExempt
- ShipTo.ZIP

### Purchase Card Level III

Level III purchase cards use the following additional data:

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

---

**Note** Minimum requirements for describing an item are Description, Quantity, and UnitPrice.

ExtAmt = Quantity \* UnitPrice.

TotalAmt = TaxAmt – DiscountAmt

---

### Check Transactions

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

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

- **BillTo.SS** (SS is optional if DL is provided)
- BillTo.DOB
- Invoice.InvNum

## 6. XMLPay Examples

This chapter provides several examples of XMLPay documents.

For specific examples of how to submit XML documents using the Payflow Pro client API, see the Payflow Pro SDK download package itself.

---

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

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

---

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## ACH Sale Request

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

XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Sale>
          <PayData>
            <Invoice>
              <InvNum>1</InvNum>
              <Date>20020208</Date>
              <BillTo>
                <Name>billtoname</Name>
                <TaxExempt>Y</TaxExempt>
              </BillTo>
              <NationalTaxIncl>Y</NationalTaxIncl>
            </Invoice>
          </PayData>
        </Sale>
      </Transaction>
    </Transactions>
  </RequestData>
</XMLPayRequest>
```

```
        <TotalAmt>24.97</TotalAmt>
    </Invoice>
    <Tender>
        <ACH>
            <AcctType>C</AcctType>
            <AcctNum>6355059797</AcctNum>
            <ABA>091000019</ABA>
            <Prenote>N</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.verisign.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <NationalTaxIncl>N</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>
```

## Card Authorization and Response

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

<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</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>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Credit>
          <PNRef>V53A09206652</PNRef>
        </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>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <ForceCapture>
          <PayData>
            <Invoice>
              <NationalTaxIncl>N</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardType>visa</CardType>
                <CardNum>5105105105105100</CardNum>
                <ExpDate>200911</ExpDate>
              </Card>
            </Tender>
          </PayData>
        </ForceCapture>
      </Transaction>
    </Transactions>
  </RequestData>
</XMLPayRequest>
```

```
        <NameOnCard/>
    </Card>
</Tender>
</PayData>
<AuthCode>AUTHCODE</AuthCode>
</ForceCapture>
</Transaction>
</Transactions>
</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>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Sale>
          <PayData>
            <Invoice>
              <NationalTaxIncl>N</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>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <NationalTaxIncl>N</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
            <Tender>
              <Card>
                <CardType>visa</CardType>
                <CardNum>5105105105105100</CardNum>
                <ExpDate>200911</ExpDate>
                <NameOnCard/>
              </Card>
            </Tender>
          </PayData>
          <BuyerAuthResult>
            <Status>Y</Status>
            <AuthenticationId>
              CTEremezUA7PkaDwP0Qk
            </AuthenticationId>
            <ECI>5</ECI>
            <CAVV>
```

```

        BwAQAJVyYAQECQJTMnJgAAAAA=
    </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.verisign.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>VeriSign</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>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Void>
          <PNRef>V54A09206691</PNRef>
        </Void>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>user</User>
      <Password>password</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```



```
</RequestAuth>
</XMLPayRequest>
```

## Card Void Response

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

<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>verisign</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.verisign.com/XMLPay"
> <RequestData>
  <Vendor>vendor</Vendor>
  <Partner>VeriSign</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>N</TaxExempt>
    </BillTo>
    <NationalTaxIncl>Y</NationalTaxIncl>
    <TotalAmt>24.97</TotalAmt>
</Invoice>
<Tender>
    <Check>
        <CheckType>P</CheckType>
        <CheckNum>1001</CheckNum>
        <MICR>12345678904390850001001</MICR>
        <DL>CA123456</DL>
        <SS>123456789</SS>
        <DOB>19000601</DOB>
    </Check>
</Tender>
</PayData>
</Sale>
</Transaction>
</Transactions>
</RequestData>
<RequestAuth>
    <UserPass>
        <User>user</User>
        <Password>password</Password>
    </UserPass>
</RequestAuth>
</XMLPayRequest>
```

## Check Sale Response

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

<XMLPayResponse xmlns="http://www.verisign.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>verisign</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <CustIP>192.168.100.31</CustIP>
              <NationalTaxIncl>N</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>
```

## IAVS Result Request

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayResponse>
  <ResponseData>
    <Vendor>vendor</Vendor>
    <Partner>verisign</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>
```

## Level 3 Invoice

```
<?xml version="1.0" encoding="UTF-8"?>
<XMLPayRequest Timeout="30" version = "2.0"
  xmlns="http://www.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
```

```
<PayData>
  <Invoice>
    <NationalTaxIncl>N</NationalTaxIncl>
    <TotalAmt>24.97</TotalAmt>
    <Level3Invoice>
      <CountyTax>
        <Amount>1.23</Amount>
      </CountyTax>
    </Level3Invoice>
  </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>
```

## Line Item Sale Request

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

<XMLPayRequest Timeout="30" version = "2.0"
xmlns="http://www.verisign.com/XMLPay"
> <RequestData>
  <Vendor>vendor</Vendor>
  <Partner>VeriSign</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>N</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>
      <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 Number="1">
</Items>
```

```
</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>N</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.verisign.com/XMLPay">
    <ResponseData>
        <Vendor>vendor</Vendor>
        <Partner>verisign</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.verisign.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>VeriSign</Partner>
        <Transactions>
            <Transaction>
```



```
<Authorization>
  <PayData>
    <Invoice>
      <MerchantDescription></MerchantDescription>
      <MerchantServiceNum></MerchantServiceNum>
      <NationalTaxIncl>N</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>verisign</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>
    <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>v3test</Vendor>
        <Partner>Signio</Partner>
        <RecurringProfiles>
            <RecurringProfile Id = "10001">
                <Add>
                    <Tender>
                        <ACH>
                            <AcctType>C</AcctType>
                            <AcctNum>5105105105105100</AcctNum>
                            <ABA>091000019</ABA>
                        </ACH>
                    </Tender>
                </Add>
                <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>
          <Country>USA</Country>
        </Address>
      </BillTo>
    </RPData>
  </Add>
</RecurringProfile>
</RecurringProfiles>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>v3test</User>
    <Password>v3test</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>
```

### Credit Card Recurring Billing Profile

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

<XMLPayRequest Timeout="30" version="2.0">
  <RequestData>
    <Vendor>VENDORNAMEHERE</Vendor>
    <Partner>PARTNERNAMEHERE</Partner>
    <RecurringProfiles>
      <RecurringProfile Id="1">
        <Add>
          <Tender>
            <Card>
              <CardNum>5105105105105100</CardNum>
              <ExpDate>200803</ExpDate>
              <NameOnCard>name</NameOnCard>
            </Card>
          </Tender>
          <RPData>
            <Name>Test Profile</Name>
            <TotalAmt>1.23</TotalAmt>
            <Start>12122004</Start>
            <Term>12</Term>
            <PayPeriod>Weekly</PayPeriod>
            <EMail>a.com</EMail>
          </RPData>
        </Add>
      </RecurringProfile>
    </RecurringProfiles>
  </RequestData>
</XMLPayRequest>
```

```
<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>USERNAMEHERE</User>
    <Password>PASSWORDHERE</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.verisign.com/XMLPay">
  <RequestData>
    <Vendor>vendor</Vendor>
    <Partner>VeriSign</Partner>
    <Transactions>
      <Transaction>
        <Authorization>
          <PayData>
            <Invoice>
              <ShipCarrier>UPS</ShipCarrier>
              <ShipMethod>Next Day</ShipMethod>
              <NationalTaxIncl>N</NationalTaxIncl>
              <TotalAmt>24.97</TotalAmt>
            </Invoice>
          </PayData>
        </Authorization>
      </Transaction>
    </Transactions>
  </RequestData>
  <Tender>
    <Card>
      <CardType>visa</CardType>
      <CardNum>5105105105105100</CardNum>
    </Card>
  </Tender>
</XMLPayRequest>
```

```
        <ExpDate>200911</ExpDate>
        <NameOnCard/>
    </Card>
</Tender>
</PayData>
</Authorization>
</Transaction>
</Transactions>
</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.verisign.com/XMLPay">
    <RequestData>
        <Vendor>vendor</Vendor>
        <Partner>VeriSign</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>verisign</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>VendorName</Vendor>
    <Partner>PartnerName</Partner>
    <Transactions>
      <Transaction>
        <ValidateAuthentication>
          <PAREs>pares bloc</PAREs>
        </ValidateAuthentication>
      </Transaction>
    </Transactions>
  </RequestData>
  <RequestAuth>
    <UserPass>
      <User>UserName</User>
      <Password>UserPassword</Password>
    </UserPass>
  </RequestAuth>
</XMLPayRequest>
```

## ValidateAuthentication Response

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

<XMLPayResponse>
  <ResponseData>
```

```
<Vendor>VendorName</Vendor>
<Partner>PartnerName</Partner>
<TransactionResults>
<TransactionResult>
  <Result>0</Result>
  <Message>OK</Message>
  <BuyerAuthResult>
    <Status>Y</Status>
    <AuthenticationId>
      CTEremezUA7PkaDwP0Qk
    </AuthenticationId>
    <ECI>5</ECI>
    <CAVV>
      BwAQAJVyYAQECQJTMnJgAAAAA=
    </CAVV>
    <XID>
      8abmK0K1Sf9OujrESKKrKkJCP4I=
    </XID>
  </BuyerAuthResult>
</TransactionResult>
</TransactionResults>
</ResponseData>
</XMLPayResponse>
```

## VerifyEnrollment Request

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

<XMLPayRequest>
  <RequestData>
    <Vendor>VendorName</Vendor>
    <Partner>PartnerName</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>
</XMLPayRequest>
```

```
        </PayData>
      </VerifyEnrollment>
    </Transaction>
  </Transactions>
</RequestData>
<RequestAuth>
  <UserPass>
    <User>UserName</User>
    <Password>UserPassword</Password>
  </UserPass>
</RequestAuth>
</XMLPayRequest>
```

## VerifyEnrollment Response

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

<XMLPayResponse>
<ResponseData>
  <Vendor>VendorName</Vendor>
  <Partner>PartnerName</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/ascurl\
      </ACUrl>
      <ECI>7</ECI>
    </BuyerAuthResult>
  </TransactionResult>
</TransactionResults>
</ResponseData>
</XMLPayResponse>
```





## A. XMLPay Schemas

This appendix contains the XMLPay 4.2 schema. Bold text identifies the lines that have been changed from version 1.0.

---

**Note** The RepeatSale element is defined, but not supported.

---

### XMLPay Schema

```
<?xml version="1.0"?>
<schema targetNamespace = "http://www.verisign.com/XMLPay"
  elementFormDefault='unqualified'
  attributeFormDefault='unqualified'
  xmlns = "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>
    </sequence>
  </complexType>
</element>

```

```

        </element>
      </choice>
      <element ref = "VersionIntegrationTracking" minOccurs = "0" maxOccurs =
"1" />
    </sequence>
  </complexType>
</element>

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

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

<element name = "ResponseData">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "Vendor" type = "UserIdType" />
      <element name = "Partner" type = "UserIdType" />
      <choice>
        <element name = "TransactionResults">
          <complexType content = "elementOnly">
            <element ref = "TransactionResult" minOccurs = "1" maxOccurs
= "unbounded" />
          </complexType>
        </element>
      </choice>
    </sequence>
  </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>
    </choice>
</sequence>
</complexType>
</element>

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

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

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

```

```

        <element ref = "GetStatus"/>
        <element ref = "VerifyEnrollment"/>
        <element ref = "ValidateAuthentication"/>
        <element ref = "TransactionUpdate"/>
    </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>
            <element name = "PNRef" type = "PNRefType" />
            <element ref = "Invoice" minOccurs="0" maxOccurs="1"/>
            <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        </sequence>
    </complexType>
</element>

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

```

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

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

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

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

```
</complexType>
</element>

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

<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>
```

```

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

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

<element name = "ProcessorResult">
  <complexType content = "elementOnly">
    <sequence>
      <element name = "AVSResult" type = "string" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "CVResult" type = "string" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "CardSecure" type = "string" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "ResponseText" type = "string" minOccurs = "0" maxOccurs
= "1"/>
      <element name = "AdditionalMessages" type = "string" minOccurs = "0"
maxOccurs = "1"/>
    </sequence>
  </complexType>
</element>

```



```

        <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"/>
        <element name = "HostResponse" 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 = "IAVSResult" type = "string" minOccurs = "0" maxOccurs =
"1"/>
            <element ref = "AVSResult" minOccurs="0" maxOccurs="1"/>
            <element name = "CVResult" type = "MatchResultEnum" minOccurs="0"
maxOccurs="1"/>
            <element name = "Message" type = "string" minOccurs="0" maxOccurs="1"/>
            <element name = "PNRef" type = "PNRefType" minOccurs="0"
maxOccurs="1"/>
            <element name = "AuthCode" type = "AuthCodeType" minOccurs="0"
maxOccurs="1"/>
            <element name = "HostCode" type = "HostCodeType" minOccurs="0"
maxOccurs="1"/>
            <element name = "HostURL" type = "uriReference" minOccurs="0"
maxOccurs="1"/>
            <element name = "OrigResult" type = "byte" minOccurs="0"
maxOccurs="1"/>
            <element name = "TrStatus" type = "StatusType" minOccurs="0"
maxOccurs="1"/>
            <element name = "ReceiptURL" type = "uriReference" minOccurs="0"
maxOccurs="1"/>
            <element name = "ACHStatus" type = "string" minOccurs = "0" maxOccurs =
"1"/>
            <element name = "OrigPNRef" type = "PNRefType" minOccurs = "0" maxOccurs
= "1"/>

```

```

        <element name = "OrigMessage" type = "string" minOccurs = "0" maxOccurs
= "1"/>
        <element ref = "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 = "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 = "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">
    <enumeration value = "E"/>
    <enumeration value = "O"/>

```

```
<enumeration value = "X"/>
<enumeration value = "I"/>
<enumeration value = "Y"/>
<enumeration value = "A"/>
<enumeration value = "U"/>
<enumeration value = "N"/>
<enumeration value = "F"/>
</simpleType>

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

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

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

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

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

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

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

<element name = "Add">
  <complexType content = "elementOnly">
    <sequence>
      <element ref = "RPData"/>
      <element ref = "Tender"/>
    </sequence>
  </complexType>
</element>

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

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

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

```

    </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"/>
        <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 = "RPreRef" type = "RPreRefType" minOccurs="0"
maxOccurs="1"/>
      <element name = "Status" type = "RPStatusType" minOccurs = "0" maxOccurs
= "1"/>
      <element name = "Name" type = "RPNameType" minOccurs="0"
maxOccurs="1"/>
      <element name = "Start" type = "RPDateType" minOccurs="0"
maxOccurs="1"/>
      <element name = "Term" type = "int" minOccurs="0" maxOccurs="1"/>
      <element name = "End" type = "RPDateType" minOccurs="0" maxOccurs="1"/>
      <element name = "PayPeriod" type = "PayPeriodType" minOccurs="0"
maxOccurs="1"/>
      <element name = "MaxFailPayments" type = "int" minOccurs="0"
maxOccurs="1"/>
      <element name = "RetryNumDays" type = "int" minOccurs="0"
maxOccurs="1"/>
      <element name = "EMail" type = "EMailType" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "CompanyName" type = "CompanyNameType" minOccurs="0"
maxOccurs="1"/>
      <element name = "Amt" type = "CurrencyAmount" minOccurs = "0" maxOccurs
= "1"/>
      <element name = "PaymentsLeft" type = "int" minOccurs = "0" maxOccurs =
"1"/>
      <element name = "NextPayment" type = "RPDateType" minOccurs = "0"
maxOccurs = "1"/>
      <element name = "AggregateAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "1"/>
      <element name = "AggregateOptionalTransAmt" type = "CurrencyAmount"
minOccurs = "0" maxOccurs = "1"/>
      <element name = "NumFailedPayments" type = "int" minOccurs = "0"
maxOccurs = "1"/>
      <element ref = "Tender" minOccurs = "0" maxOccurs = "1"/>
      <element name = "BillTo" minOccurs = "0" maxOccurs = "1">
        <complexType content = "elementOnly">
          <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
          <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>

```

```

                <element name = "Phone" type = "PhoneNumberType" minOccurs = "0"
maxOccurs = "1"/>
                <element name = "Fax" type = "PhoneNumberType" minOccurs = "0"
maxOccurs = "1"/>
            </complexType>
        </element>
        <element name = "ShipTo" minOccurs = "0" maxOccurs = "1">
            <complexType content = "elementOnly">
                <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
                <element ref = "Address"/>
                <element name = "Phone" type = "PhoneNumberType" minOccurs = "0"
maxOccurs = "1"/>
                <element name = "Fax" type = "PhoneNumberType" minOccurs = "0"
maxOccurs = "1"/>
            </complexType>
        </element>
        <element ref = "TransactionResult" minOccurs = "0" maxOccurs = "1"/>
        <element ref = "RPPaymentResult" minOccurs = "0" maxOccurs =
"unbounded"/>
        <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
    <attribute name = "Id" type = "ID"/>
</complexType>
</element>

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

<simpleType name = "RPNameType" base = "string">
    <maxLength value = "128"/>
</simpleType>

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

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

```



```
<simpleType name = "CompanyNameType" base = "string">
  <maxLength value = "64"/>
</simpleType>

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

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

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

</schema>
```

## XMLPay Types Schema

```
<?xml version="1.0"?>
<schema targetNamespace = "http://www.verisign.com/XMLPay"
  elementFormDefault='unqualified'
  attributeFormDefault='unqualified'
  xmlns = "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 = "Date" type = "date" minOccurs = "0" maxOccurs = "1"/>
        <element name = "OrderDateTime" type = "string" minOccurs = "0"
maxOccurs = "1"/>
        <element name = "BillFrom" minOccurs = "0" maxOccurs = "1">
          <complexType context = "elementOnly">
            <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
            <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">
          <complexType content = "elementOnly">
            <element name = "CustomerId" type = "UserIdType" minOccurs = "0"
maxOccurs = "1"/>
            <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
            <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
          </complexType>
        </element>
      </sequence>
    </complexType>
  </element>

```

```

        <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"/>
        </complexType>
    </element>

    <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">
        <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 = "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 = "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"/>
        </complexType>
    </element>

    <element name = "Description" type = "DescType" minOccurs = "0"
maxOccurs = "unbounded"/>
    <element name = "Items" minOccurs = "0" maxOccurs = "1">
        <complexType content = "elementOnly">
            <element ref = "Item" minOccurs = "0" maxOccurs = "unbounded" />
        </complexType>
    </element>
    <element name = "DiscountAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "1"/>
    <element name = "ShippingAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "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"/>
    <element name = "FreightAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs="1"/>
    <element name = "HandlingAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs="1"/>
    <element name = "Comment" type = "CommentType" minOccurs = "0" maxOccurs
= "1"/>
    <element ref = "Level3Invoice" minOccurs = "0" maxOccurs = "1"/>
    <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
</sequence>
</complexType>
</element>

<element name = "Level3Invoice">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "AllTax" 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 = "AlternateTaxAmount" type = "CurrencyAmount" minOccurs
= "0" maxOccurs = "1"/>
        <element name = "AlternateTaxID" type = "string" minOccurs = "0"
maxOccurs = "1"/>
        <element name = "BuyingGroup" minOccurs = "0" maxOccurs = "1">
            <complexType content = "elementOnly">
                <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
                <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
            </complexType>
        </element>
        <element name = "CardStart" type = "string" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "CardIssue" type = "string" minOccurs = "0" maxOccurs =
"1"/>
        <element name = "CountyTax" 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 = "CountySalesTax" 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 = "CityTax" 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 = "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">
            <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 = "FreightRate" type = "string" minOccurs = "0" maxOccurs
= "1"/>
        <element name = "GenericProductDescription" type = "string" minOccurs =
"0" maxOccurs = "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">
                <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 = "NationalTax" 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 = "Requestor" minOccurs = "0" maxOccurs = "1">
            <complexType content = "elementOnly">

```

```

        <element name = "Name" type = "NameType" minOccurs = "0"
maxOccurs = "1"/>
        <element ref = "Address" 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 = "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 = "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 = "StateTax" 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 = "ValueAddedTaxRegNum" type = "string" minOccurs = "0"
maxOccurs = "1"/>
        <element ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
    </sequence>
</complexType>
</element>

<element name = "Level3Item">
    <complexType content = "elementOnly">
        <sequence>
            <element name = "AllTax" 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 = "CityTax" type = "Level3TaxType" minOccurs = "0"
maxOccurs = "1">
                <complexType content = "elementOnly">
                    <element name = "Amount" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "1"/>
                </complexType>
            </element>
        </sequence>
    </complexType>
</element>

```



```

        <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">
        <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 = "CountyTax" 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 = "EnvironmentalTax" 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 = "LocalTax" 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 = "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"/>
            <element name = "ExemptCode" type = "string" minOccurs = "0"
maxOccurs = "1"/>
            <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 = "20"/>
</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"/>
    </sequence>
  </complexType>
</element>
```

```

        <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 = "ShippingAmt" type = "CurrencyAmount" minOccurs = "0"
maxOccurs = "1"/>
        <element name = "TaxAmt" type = "CurrencyAmount" 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 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"/>
      <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"/>
    </sequence>
  </complexType>
</element>

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

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

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

<simpleType name = "TenderTypeEnum" base = "string">
  <enumeration value = "ACH"/>
  <enumeration value = "Card"/>
  <enumeration value = "Check"/>
</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"/>
    </sequence>
  </complexType>
</element>
```

```

        <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 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 = "3"/>
</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"/>
</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 = "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 ref = "ExtData" minOccurs = "0" maxOccurs = "unbounded"/>
        <element ref = "Address" minOccurs = "0" maxOccurs = "1"/>
    </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 = "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="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>

</schema>
```



## B. 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 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 Address ((Company?, Street?, Street2?, City?, State?, Zip?,
Country?))>

<!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 ShipFrom (Name?, Address, EMail?, Phone?, Fax?)>

<!ELEMENT ShipTo (Name?, Address, EMail?, Phone?, Phone2?, Fax?)>

<!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 ShippingAmt (#PCDATA)>
<!ATTLIST ShippingAmt Currency CDATA #IMPLIED>

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

<!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 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?, ShippingAmt?,
TaxAmt?, TotalAmt?, ExtData*, Delivery?, PickUp?, CostCenterNumber?,
TrackingNumber?, FreightAmt?, HandlingAmt?, ShipmentNumber?,
UNSPSCCode?, CatalogNumber?, Level3Item?))>
<!--ATTLIST Item Number CDATA #REQUIRED>

<!--ELEMENT Items (Item*)>
```



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

<!--ELEMENT NationalTaxIncl (#PCDATA)>

<!--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 CommCode (#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 Invoice ((CustIP?, MerchantDescription?,
MerchantServiceNum?, Recurring?, InvNum?, Date?, OrderDateTime?,
```

```
BillFrom?, BillTo?, ShipCarrier?, ShipMethod?, ShipFrom?, ShipTo?,  
Description*, Items?, DiscountAmt?, ShippingAmt?, DutyAmt?, TaxAmt?,  
NationalTaxIncl?, TotalAmt, FreightAmt?, HandlingAmt?, Comment?,  
Level3Invoice?, 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 ACH ((AcctType?, AcctNum?, ABA?, Prenote?, AuthType?,  
CheckNum?, TermCity?, TermState?, 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?,
ACUrl?, ECI?, CAVV?, XID?))>

<!ELEMENT Card ((CardType?, CardNum?, ExpDate?, CVNum?, MagData?,
NameOnCard?, CommercialCard?, BuyerAuthResult?, ExtData*))>

<!ELEMENT CheckType (#PCDATA)>

<!ELEMENT AllianceNum (#PCDATA)>

<!ELEMENT MICR (#PCDATA)>

<!ELEMENT DL (#PCDATA)>

<!ELEMENT SS (#PCDATA)>

<!ELEMENT DOB (#PCDATA)>

<!ELEMENT Check ((CheckType?, AllianceNum?, CheckNum?, MICR?, DL?, SS?,
DOB?, ExtData*, Address?))>

<!ELEMENT Tender ((ACH| Card| Check))>

<!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 Capture ((PNRef, Invoice?, ExtData*))>

<!ELEMENT Sale ((PayData, PayDataAuth?, ExtData*))>

<!ELEMENT Credit (((PNRef| Tender), Invoice?, ExtData*))>

<!ELEMENT Void ((PNRef, ExtData*))>
```

```
<!--ELEMENT AuthCode (#PCDATA)>

<!--ELEMENT ForceCapture ((PayData, PayDataAuth?, AuthCode, ExtData*))>

<!--ELEMENT RepeatSale ((PNRef, Invoice?, ExtData*))>

<!--ELEMENT GetStatus ((PNRef, ExtData*))>

<!--ELEMENT VerifyEnrollment ((PayData, ExtData*))>

<!--ELEMENT PRes (#PCDATA)>

<!--ELEMENT ValidateAuthentication ((PRes, ExtData*))>

<!--ELEMENT Action (#PCDATA)>

<!--ELEMENT RMSID (#PCDATA)>

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

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

<!--ELEMENT TransactionResults (TransactionResult+)>

<!--ELEMENT RPPref (#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?,
RPPref?, 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 ResponseData ((Vendor, Partner, (TransactionResults|
RecurringProfileResults| AccountUpdateResults)))>

<!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>

```





## C. VeriSign Transaction Results

The transaction result status response (RESULT) is the first value returned from the VeriSign 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 “RESULT Codes and RESPMSG Values” on page 140.
- A value less than zero indicates that a communication error occurred. In this case, no transaction is attempted. See “RESULT Values for Communications Errors” on page 146.

AVS result codes are described on “AVS Result Codes” on page 147.

### PNREF Value (Payflow Pro Merchants)

The Payment Network Reference ID value (PNREF) is a unique transaction identification number issued by VeriSign that identifies the transaction for billing, reporting, and transaction data purposes. The PNREF value appears in the Transaction ID column in VeriSign Manager reports.

- The PNREF value is used as the TRANSID value (original transaction ID) in delayed capture transactions (TRXTYPE=D), credits (TRXTYPE=C), inquiries (TRXTYPE=I), and voids (TRXTYPE=V).

- The PNREF value is used as the TRANSID value (original transaction ID) value in reference transactions for authorization (TRXTYPE=A) and Sale (TRXTYPE=S).

### PNREF Format

The PNREF value is a 12-character alpha-numeric string. The content depends on whether the value represents a test or live transaction, as follows:

- For Test servers, the first and fourth characters in the PNREF value are alpha characters (letters), and the second and third characters are numeric, for example V53A17230645.
- For Live servers, all of the first four characters are alpha characters (letters), for example: VPNE12564395.

## RESULT Codes and RESPMSG Values

RESULT is the first value returned in the VeriSign server response string. The value of the RESULT parameter indicates the overall status of the transaction attempt.

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

The response message (RESPMSG) provides a brief description for decline or error results.

### RESULT Values for Transaction Declines or Errors

For non-zero Results, the response string includes a RESPMSG name/value pair. The exact wording of the RESPMSG (shown in **bold**) may vary. Sometimes a colon appears after the initial RESPMSG followed by more detailed information.

Table C-1 VeriSign transaction RESULT values and RESPMSG text

RESULT	RESPMSG and Explanation
0	<b>Approved</b>

Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
1	User authentication failed. Error is caused by one or more of the following: 1) Invalid User, Merchant Login, Partner, or Password entered during login. Login information is case-sensitive. 2) Invalid Processor information entered. Contact merchant bank to verify. 3) "Allowed IP Address" security feature implemented. 4) Test account submitting transactions to live VeriSign servers.
2	<b>Invalid tender type.</b> Your merchant bank account does not support the following credit card type that was submitted.
3	<b>Invalid transaction type.</b> Transaction type is not appropriate for this transaction. For example, you cannot credit an authorization-only transaction.
4	<b>Invalid amount format</b>
5	<b>Invalid merchant information.</b> Processor does not recognize your merchant account information. Contact your bank account acquirer to resolve this problem.
7	<b>Field format error.</b> Invalid information entered. See RESPMSG.
8	<b>Not a transaction server</b>
9	<b>Too many parameters or invalid stream</b>
10	<b>Too many line items</b>
11	Client time-out waiting for response
12	<b>Declined.</b> Check the credit card number and transaction information to make sure they were entered correctly. If this does not resolve the problem, have the customer call the credit card issuer to resolve.
13	<b>Referral.</b> Transaction was declined but could be approved with a verbal authorization from the bank that issued the card. Submit a manual Voice Authorization transaction and enter the verbal auth code.
19	<b>Original transaction ID not found.</b> The transaction ID you entered for this transaction is not valid. See RESPMSG.
20	<b>Cannot find the customer reference number</b>
22	<b>Invalid ABA number</b>
23	<b>Invalid account number.</b> Check credit card number and re-submit.
24	<b>Invalid expiration date.</b> Check and re-submit.

Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
25	<b>Invalid Host Mapping.</b> Not signed up for this tender type.
26	<b>Invalid vendor account</b>
27	<b>Insufficient partner permissions</b>
28	<b>Insufficient user permissions</b>
29	<b>Invalid XML document.</b> This could be caused by an unrecognized XML tag or a bad XML format that cannot be parsed by the system.
30	<b>Duplicate transaction</b>
31	<b>Error in adding the recurring profile</b>
32	<b>Error in modifying the recurring profile</b>
33	<b>Error in canceling the recurring profile</b>
34	<b>Error in forcing the recurring profile</b>
35	<b>Error in reactivating the recurring profile</b>
36	<b>OLTP Transaction failed</b>
37	<b>Invalid recurring profile ID</b>
50	<b>Insufficient funds available in account</b>
99	<b>General error.</b> See RESPMSG.
100	<b>Transaction type not supported by host</b>
101	<b>Time-out value too small</b>
102	<b>Processor not available</b>
103	<b>Error reading response from host</b>
104	<b>Timeout waiting for processor response.</b> Try your transaction again.
105	<b>Credit error.</b> 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	<b>Host not available</b>
107	<b>Duplicate suppression time-out</b>

Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
108	<b>Void error.</b> 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	<b>Time-out waiting for host response</b>
111	<b>Capture error.</b> 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	<b>Failed AVS check.</b> Address and ZIP code do not match. An authorization may still exist on the cardholder's account.
113	<b>Merchant sale total will exceed the sales cap with current transaction.</b> ACH transactions only.
114	<b>Card Security Code (CSC) Mismatch.</b> An authorization may still exist on the cardholder's account.
115	<b>System busy, try again later</b>
116	<b>VPS Internal error. Failed to lock terminal number</b>
117	<p><b>Failed merchant rule check.</b> One or more of the following three failures occurred:</p> <ul style="list-style-type: none"> <li>▪ An attempt was made to submit a transaction that failed to meet the security settings specified on the VeriSign Manager <i>Security Settings</i> page. If the transaction exceeded the Maximum Amount security setting, then no values are returned for AVS or CSC. See <i>VeriSign Manager User's Guide</i> for information on the <i>Security Settings</i> page.</li> <li>▪ AVS validation failed. The AVS return value should appear in the RESPMSG.</li> <li>▪ CSC validation failed. The CSC return value should appear in the RESPMSG.</li> </ul>
118	<b>Invalid keywords found in string fields</b>
122	<b>Merchant sale total will exceed the credit cap with current transaction.</b> ACH transactions only.
125	Fraud Protection Services Filter — Declined by filters

Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
126	<p>Fraud Protection Services Filter — Flagged for review by filters</p> <p><b>Important Note:</b> 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.</p> <p>This result occurred due to that fact that all new Payflow accounts include a “test drive” of the Fraud Protection Services at no charge. The filters are on by default, and a suspicious transaction triggered Result code 126. You can modify these settings based on your business needs.</p> <p>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.</p> <p>To eliminate result 126, turn the filters off.</p> <p>For more information, see the chapter entitled “Assessing Transactions that Triggered Filters” in <i>Fraud Protection Services Guide</i> or <i>User’s Guide for Payflow Link Guide With Fraud Protection Services</i>.</p>
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.
1000	<b>Generic host error.</b> 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). To enroll, log in to VeriSign Manager, click Security, and then click the Buyer Authentication Service banner on the page.



Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
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
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

Table C-1 VeriSign transaction RESULT values and RESPMSG text (Continued)

RESULT	RESPMSG and Explanation
1052	Buyer Authentication Service — Validate Authentication failed: This PARES was already validated for a previous Validate Authentication transaction

## RESULT Values for Communications Errors

A value for RESULT less than zero indicates that a communication error occurred. In this case, no transaction is attempted.

A value of -1 or -2 usually indicates a configuration error. Either the VeriSign server is unavailable, or incorrect server/socket pairs have been specified. A value of -1 can also result when there are Internet connectivity errors. Refer other errors to VeriSign at [support@verisign.com.au](mailto:support@verisign.com.au).

Table C-2 RESULT values for communications errors

RESULT	Description
-1	Failed to connect to host
-2	Failed to resolve hostname
-5	Failed to initialize SSL context
-6	Parameter list format error: & in name
-7	Parameter list format error: invalid [ ] name length clause
-8	SSL failed to connect to host
-9	SSL read failed
-10	SSL write failed
-11	Proxy authorization failed
-12	Timeout waiting for response
-13	Select failure
-14	Too many connections
-15	Failed to set socket options
-20	Proxy read failed
-21	Proxy write failed
-22	Failed to initialize SSL certificate

Table C-2 RESULT values for communications errors (Continued)

RESULT	Description
-23	Host address not specified
-24	Invalid transaction type
-25	Failed to create a socket
-26	Failed to initialize socket layer
-27	Parameter list format error: invalid [ ] name length clause
-28	Parameter list format error: name
-29	Failed to initialize SSL connection
-30	Invalid timeout value
-31	The certificate chain did not validate, no local certificate found
-32	The certificate chain did not validate, common name did not match URL
-99	Out of memory

## 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:

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.

**Note** 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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