

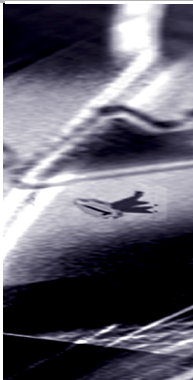


VeriSign Payment Services

Payflow Pro Developer's Guide



USER GUIDE



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VeriSign, Inc. DOC-DOM-PMT-GID-0009/Rev. 2

VeriSign Payment Services Payflow Pro Developer's Guide

VeriSign, Inc. DOC-DOM-PMT-GID-0009/Rev. 2

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Summary of Revisions

DOC-DOM-PMT-GID-0009/Rev. 2

The following change has been made to this document since revision 1:

Testing	Information on testing Payflow Link has been expanded. See Chapter 4, "Testing Payflow Pro."
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Introduction

VeriSign Payflow Pro is a high performance TCP/IP-based Internet payment solution. Payflow Pro is pre-integrated with leading e-commerce solutions and is also available as a downloadable software development kit (SDK).

About Payflow Pro

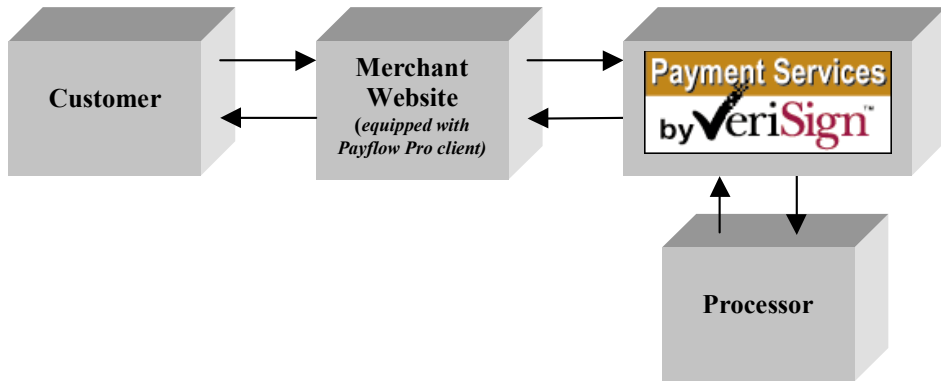
The Payflow Pro client resides on your computer system and is available on all major Web server platforms in a variety of formats to support integration requirements. It comes as a binary executable, activated via a Common Gateway Interface (CGI) script, or integrated as a C-interface application library. It is also available as DLL, COM, Site Server, Java Native Interface, or Perl Module Interface.

Payflow Pro is multi-threaded and allows multiple concurrent transactions from a single client. It can be integrated as a Web-based or a non-Web-based application. It does not require the HTTP protocol to run, which allows for greater flexibility in configuration and reduced processing overhead for higher performance.

How Payflow Pro Works

Payflow Pro uses a client/server architecture to transfer transaction data from you to the processing networks, and then returns the authorization results to you.

Payflow Pro can process real-time credit card and/or check transactions to most of the financial processing centers in the United States.



- 1 The Payflow Pro client encrypts each transaction request using the latest Secure Sockets Layer (SSL) encryption and establishes a secure link with the VeriSign processing server over the Internet.
- 2 The VeriSign server, which is a multi-threaded processing environment, receives the request and transmits it (over a private network) to the appropriate financial processing network for real-time payment authorization.
- 3 The response (approved/declined, and so on) is received from the financial network and is returned via the same session to the Payflow Pro client.
- 4 The Payflow Pro client completes each transaction session by transparently sending a transaction receipt to the VeriSign server before disconnecting the session.

The entire process is a real-time synchronous transaction. Once connected, the transaction is immediately processed and the answer returned in about three seconds. Payflow Pro does not affect or define the time periods of authorizations, nor does it influence the approval or denial of a transaction.

When integrating with Payflow Pro, you need only be concerned with passing all the required data for transaction authorization. The settlement (close batch) operation is handled by VeriSign.

Payflow Pro Advantages

- **Configurable to any e-commerce application.** Payflow Pro is ideal for enterprise merchants who require complete customizability for a controlled buyer experience.
- **Easy to install and implement.** Downloadable from VeriSign's Web site, Payflow Pro can be easily integrated into a customized e-commerce solution in a matter of hours.
- **Integration versatility.** Payflow Pro can be integrated as an application library or can be run using CGI scripts.

Pre-integrated Solutions

Payflow Pro is integrated with the majority of third-party shopping carts and ecommerce applications. Some VeriSign integrations are included with the third-party solution, and others are available from the download section of the VeriSign Manager Web site (<https://manager.verisign.com>). Some of the supported solutions are:

- Inex
- Miva
- Shopsite
- Intershop
- Microsoft Commerce Server 2000
- Macromedia Cold Fusion

For a detailed list of shopping carts compatible with Payflow Pro, see <http://www.verisign.com/products/payflow/partners/cartPartners.html>.

For a detailed list of e-commerce applications compatible with Payflow Pro, see <http://www.verisign.com/products/payflow/partners/devPartners.html>.

Processors

Payflow Pro supports the following processors:

- American Express
- EDS Aurora
- FDMS Nashville
- FDMS South
- Global Payments
- Norwest
- Nova
- Paymentech
- TeleCheck
- Vital

Credit Cards

Payflow Pro supports multiple credit card types, including:

- Visa
- MasterCard
- American Express/Optima
- Diners Club
- Discover/Novus
- JCB

Payment Types

Payflow Pro supports multiple payment types in a single installation, including:

- Credit cards
- Electronic check
- Delayed shipment billing
- Purchase cards Level II (also known as corporate purchase or procurement cards) and Level III
- Automated Clearing House

Customer Support

For problems with transaction processing or your connection to VeriSign, contact:

VeriSign Payment Services

Online Info: www.verisign.com

E-mail: vps-support@verisign.com

Mail: VeriSign Payment Services
 Attn: Customer Support
 487 E. Middlefield Rd.
 Mountain View, CA 94043

Phone: (888) 883-9770

For questions regarding transaction settlement, contact one of the following:

American Express

American Express
19640 N. 31st Avenue
Phoenix, AZ 85027

(800) 297-5555

EDS Aurora

EDS Aurora
5400 Legacy Drive
M/S B1-2A-19
Plano, TX 75024

(800) 526-9839

FDMS Nashville

First Data Corporation
2525 Perimeter Place Drive
Suite 123
Nashville, TN 37214

(800) 647-3722

FDMS South

First Data Corporation
Business Payment Services Group
4000 Coral Ridge Drive
Coral Springs, FL 33065

(800) 326-2217

Global Payments

Global Payments, Inc.
Four Corporate Square
Atlanta, Georgia 30329-2010

800-622-2318 Main corporate number: 404-235-4400

Norwest

Norwest Operations Center
Attn: ACH
255 2nd Ave South
Minneapolis, MN 55479

(800) 745-2426

Nova

Nova Information Systems, Inc.
Knoxville Operations Center
7300 Chapman Highway
Knoxville, TN 37920-6609

(800) 725-1243

Paymentech

Paymentech, Inc.
4 Northeastern Blvd.
Salem, NH 03079

(800) 782-1266

TeleCheck

TeleCheck Merchant Services
P.O. Box 4513
Houston, TX 77210-4513

(800) 366-1054 (Merchant Services)

Vital

Vital
Visanet Processing Services
8320 South Hardy Road
Tempe, AZ 85284

(800) 847-2772 (Merchant Help Desk)

About this Document

This document is organized as follows:

- Chapter 2, “Getting Started,” shows a typical Payflow Pro installation procedure for NT and UNIX.
- Chapter 3, “Configuring Payflow Pro,” discusses the transaction parameters, format, and responses you need to configure and test your Payflow Pro integration.
- Chapter 5, “Going Live,” specifies the steps you need to follow when you are ready to go live with your Payflow Pro configuration.
- Appendix A “Processors,” lists processors and their processor-specific parameters.
- Appendix B “Country Codes, Units of Measure, and Currency Codes,” lists Country Codes, Units of Measure, and Currency Codes.
- Appendix C “VeriSign Reporting Parameters,” details the parameters that can be passed to VeriSign for reporting purposes.
- Appendix D “XMLPay,” briefly describes XMLPay and tells where you may obtain a copy of the *XMLPay 1.0 Core Specification* document.
- Appendix E “Frequently Asked Questions,” contains answers to the most commonly asked questions about Payflow Pro.

Getting Started

- Step 1** Download the Payflow Pro SDK from the Download section of the VeriSign Manager (<https://manager.verisign.com>) to your hard drive.
- Step 2** Extract the files to a directory.
- Step 3** Refer to the Readme file for the particular system (Perl, Java, and so on) that you are using. The Readme file includes information on samples that illustrate how to use the client.

Configuring Payflow Pro

Before You Begin

If you plan to configure and customize Payflow Pro SDK yourself

- You should be familiar with Web development tools and procedures. If you are not, consider letting one of VeriSign's Web development partners help you. You can find a VeriSign Web development partner at <http://www.verisign.com/products/payflow/partners/solution.html>

If you do not have Web development expertise and you do not want to hire someone to help you

- Consider using one of the shopping carts that integrate Payflow Pro. You can find more information at <http://www.verisign.com/products/payflow/partners/carts.html>

Examples Used in this Chapter

The examples used in this chapter refer to the executable client. Other Payflow Pro clients will differ in where and how the parameters are set, but the meaning and uses are the same.

Setting the Certificate Path

For the client to authenticate the VeriSign Payment Services server, the `PFPRO_CERT_PATH` environment variable must point to the `certs` directory (included in the SDK that you downloaded).

For specific information on setting `PFPRO_CERT_PATH`, see the Readme file and example applications in the SDK that you downloaded.

Transaction Format

General Syntax

Use the following syntax when calling the Payflow Pro client (**pfpro**) to process a transaction for any payment type:

```
pfpro <HostAddress> <HostPort> "<ParmList>" <TimeOut>
<ProxyAddress> <ProxyPort> <ProxyLogon> <ProxyPassword>
```

Table 3-1 describes each of the parameters. Follow these guidelines:

- Use a single string with no line breaks.
- Use spaces as argument separators.
- Enclose the **ParmList** in quotation marks ("").
- Separate all **name=value** pairs in the **ParmList** using an ampersand (&).
- Calling **pfpro** without the required parameters results in an error message.

The following example credit card sale transaction differs from check or purchasing card transactions only in the list of parameters required in the **ParmList**.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=S&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ACCT=54997400000
00016&EXPDATE=0804&AMT=1.00"
```

Table 3-1 Syntax breakdown

Parameter	Required	Description
HostAddress	Yes	VeriSign's host name. For live transactions, use <i>payflow.verisign.com</i> . For testing purposes use <i>test-payflow.verisign.com</i> .
HostPort	Yes	Use port 443

Table 3-1 Syntax breakdown (Continued)

Parameter	Required	Description
ParmList	Yes	The ParmList is the list of parameters that specify the payment information for the transaction. The contents of the ParmList will vary by the type of transaction being processed and the payment method (tender type) that is being used. For example, the required parameters for a void transaction differ from the parameters required to process a sale transaction, an ACH, or an electronic check transaction. The ParmList must be enclosed in quotes. (See “The following parameters are required for every credit card, electronic check, or ACH transaction. The parameters are described in Table 3-3. Additional tender-specific parameters are required.” on page 13 for ParmLists by tender type.)
TimeOut	Yes	This value specifies a time-out period for the transaction. The minimum recommended time-out value is 30 seconds. The VeriSign client will begin tracking the time-out value from the point that it actually sends the transaction request to the VeriSign server.
ProxyAddress*	No	Proxy server address
ProxyPort*	No	Proxy server port
ProxyLogon*	No	Proxy server logon ID
ProxyPassword*	No	Proxy server logon password
*Use these items for servers behind a firewall. Your network administrator can provide these values.		

Required Parameters

All Transactions — Required Parameters

The following parameters are required for every credit card, electronic check, or ACH transaction. The parameters are described in Table 3-3. Additional tender-specific parameters are required.

- TRXTYPE
- TENDER
- PARTNER
- VENDOR
- USER

- PWD
- AMT

Credit Card Transactions — Required Parameters

The tables define the parameters used in this example.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=S&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ACCT=54997400000
00016&EXPDATE=0804&AMT=1.00"
```

Table 3-2 Syntax breakdown

Item	Description
HostAddress	VeriSign host name: pfpro test-payflow.verisign.com
HostPort	VeriSign host port number: 443
ParmList	"TRXTYPE=S&TENDER=C&PARTNER=partner ID or <i>VeriSign</i> &VENDOR=login&USER=login&PWD=password&ACCT= 5499740000000016&EXPDATE=0804&AMT=1.00"

Table 3-3 ParmList breakdown

Parameter	Description
TRXTYPE=S	Type of transaction affecting the cardholder's account (S = sale)
TENDER=C	Type of tender being used (C = credit card)
PARTNER=partner ID or <i>VeriSign</i>	This field is case-sensitive. Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .
VENDOR=login	The case-sensitive login that you defined at registration.
USER=login	This field is case-sensitive. Use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.
PWD= <i>password</i>	Case-sensitive password
ACCT=5499740000000016	Customer's account number. If ACCT is not used in the string, you must use ORIGID. See "Common Credit Card Parameters" on page 18.

Table 3-3 ParmList breakdown (Continued)

Parameter	Description
EXPDATE=0804	Cardholder's expiration date
AMT=5.00	Transaction amount. A decimal point separates dollars from cents.

Electronic Check Transactions — Required Parameters

VeriSign offers electronic check acceptance through TeleCheck. Before processing electronic check transactions, merchants must obtain an account through TeleCheck (www.telecheck.com). For more information, see “TeleCheck” on page 57.

Electronic check transactions are processed under a “best possible” delivery method. The transaction is deposited through the ACH system, unless the account holder's bank is not a participant, in which case a facsimile draft is created and deposited on behalf of the merchant.

The tables define the parameters used in this example.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=S&TENDER=K&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&AMT=101.00&MICR=
1234567804390850014321&CHKNUM=4321&NAME=Bob
Smith&STREET=121 Park
Street&CITY=Pleasanton&STATE=CA&ZIP=123451234&DL=CA1234567&E
MAIL=customer@customer.com"
```

Table 3-4 Syntax Breakdown

Item	Description
HostAddress	VeriSign host name: pfpro test-payflow.verisign.com
HostPort	VeriSign host port number: 443
ParmList	"TRXTYPE=S&TENDER=K&PARTNER=partner ID or <i>VeriSign</i> &VENDOR=login&USER=login&PWD=password&AMT=10 1.00&MICR=1234567804390850014321&CHKNUM=4321&NAME =Bob Smith&STREET=121 Park Street&CITY=Pleasanton&STATE=CA&ZIP=123451234&DL=CA1 234567&EMAIL=customer@customer.com"

Table 3-5 ParmList Breakdown

Parameter	Description
TRXTYPE=S	Type of transaction affecting the cardholder's account (S = sale)
TENDER=K	Type of tender being used (K = check)
PARTNER=partner ID or <i>VeriSign</i>	This field is case-sensitive. Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .
VENDOR=login	The case-sensitive login that you defined at registration.
USER=login	This field is case-sensitive. Use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.
PWD=password	Case-sensitive password
AMT=1.01	Transaction amount. A decimal '.' separates dollars from cents.
MICR=1234567804390850011001	MICR stands for Magnetic Ink Check Reader. This is the entire line of numbers at the bottom of all checks. It includes the transit number, account number, and check number.
CHKNUM=1001	Account holder's next unused (available) check number
NAME=Bob Smith	Account holder's name, as it appears on the check
STREET=121 Park Street	Account holder's street address
CITY=Pleasanton	Account holder's city
STATE=CA	Account holder's state
ZIP=123451234	Account holder's zip code
DL=CA1234567	Account holder's driver's license number. Format is: Xx = State Code, Nnnnnnnn = DL Number.
EMAIL=customer@customer.com	Account holder's e-mail address

ACH Transactions — Required Parameters

Unlike credit card processing, ACH is not instantaneous. Inquiries are required to determine the status of a transaction. See Appendix A, “Processors.”

Note To sign up for ACH processing, contact your VeriSign Sales Representative or call 888-847-2747.

The tables define the parameters used in this example.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=S&TENDER=A&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=passwd&AMT=23.47&ABA=9485
73627&ACCT=14576385&ACCTTYPE=C&NAME=John Smith"
```

Table 3-6 Syntax Breakdown

Call Item	Description
HostAddress	VeriSign host name: pfpro test-payflow.verisign.com
HostPort	VeriSign host port number: 443
ParmList	"TRXTYPE=S&TENDER=A&PARTNER=partner ID or <i>VeriSign</i> &VENDOR=login&USER=login&PWD=passwd&AMT=23. 47&ABA=948573627&ACCT=1457638567&ACCTTYPE=C&NAM E=John Smith"

Table 3-7 ParmList Breakdown

Parameter	Description
TRXTYPE=S	Type of transaction affecting the cardholder's account (S = sale)
TENDER=A	Type of tender being used (A = ACH)
PARTNER=partner ID or <i>VeriSign</i>	This field is case-sensitive. Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .
VENDOR=login	The case-sensitive login that you defined at registration.
USER=login	This field is case-sensitive. Use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.
PWD=password	Case-sensitive password

Table 3-7 ParmList Breakdown

Parameter	Description
AMT=23.47	Dollar amount of EFT transaction. A decimal point separates dollars from cents. The AMT parameter is not required for a prenote.
ABA=948573627	Customer's transit ABA routing number
ACCT=1457638567	Customer's account number
ACCTTYPE=C	'S'avings, 'C'hecking – Customer's account type
NAME=John Smith	Customer's name on the account

Common Credit Card Parameters

All credit card processors accept the parameter fields listed in Table 3-8.

- Some of the listed parameters are required: TRXTYPE, TENDER, PARTNER, VENDOR, USER, PWD, ACCT, EXPDATE, AMT.
- Some of the listed parameters are fully optional: COMMENT1, COMMENT2, STREET, ZIP.
- Some processors require other parameters, as listed in Appendix A, “Processors.”
- See Appendix C, “VeriSign Reporting Parameters.” for a list of parameters that you can pass for reporting purposes.

Table 3-8 Credit-card processor parameters

Parameter	Description	Required	Type	Max. Length
ACCT	The credit card or purchase card number may not contain spaces, non-numeric characters, or dashes. ACCT= 5105105105105100	Yes ¹	Numeric	19

Table 3-8 Credit-card processor parameters (Continued)

Parameter	Description	Required	Type	Max. Length
AMT	Amount (USD) U.S. based currency. The transaction amount should always specify a decimal, and the exact amount, to the cent (34.00, not 34). Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95. Maximum amounts may be predetermined by your processor and/or merchant account provider.	Yes ¹	Numeric USD only	10
AUTHCODE	Used only when processing Voice Authorization transactions. AUTHCODE is used to define an approval code that is obtained by calling the processing network directly and getting an approval for the transaction over the phone. Note: AUTHCODE is also returned for approved transactions	No, except for Voice Authorizations.	Numeric	6
COMMENT1	User-defined field for reporting and auditing purposes.	No	Alpha-numeric	128
COMMENT2	User-defined field for reporting and auditing purposes.	No	Alpha-numeric	128
EXPDATE	Specifies the expiration date of the credit card. The format is MMY. "MM" represents the two-digit month and "Y" represents the two-digit year. 0202 February, 2002 0804 August 2004	Yes ¹	Numeric	4
ORIGID	This field is case-sensitive. The VeriSign Reference ID (PNREF) which is returned for all transactions. The ORIGID is used when referencing a previous transaction.	Yes ¹	Alpha-numeric	12
PARTNER	This field is case-sensitive. Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .	Yes	Alpha-numeric	12
PWD	The case-sensitive password must be 6-12 characters and is defined at registration.	Yes	Alpha-numeric	12

Table 3-8 Credit-card processor parameters (Continued)

Parameter	Description	Required	Type	Max. Length
STREET	The cardholder's street address (number and street name). This parameter is a component of called AVS.	No	Alpha-numeric	30
TENDER	The tender type field indicates what kind of tender is desired. For credit cards the only recognized value is C. Other tender types apply to other payment methods (electronic check and ACH).	Yes	Alpha	1
TRXTYPE	The transaction type indicates what kind of transaction is desired. Described in "Credit Card Transactions" on page 20.	Yes	Alpha	1
USER	This field is case-sensitive. For now you must use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.	Yes	Alpha-numeric	64
VENDOR	The case-sensitive login that you defined at registration.	Yes	Alpha-numeric	64
ZIP	The zip code field is used for AVS and should contain the cardholder's 5 to 9-digit zip code. It should not contain any spaces or non-numeric characters.	No	Numeric	9

1. Some transaction types do not require this parameter field. See "Creating Transactions" on page 20.

Creating Transactions

Credit Card Transactions

When creating credit card transactions, you must specify the **TRXTYPE** (Transaction Type) as follows:

S –Sale Charges the specified amount against the account, and marks the transaction for immediate funds transfer during the next settlement period. VeriSign performs settlement for each merchant on a daily basis.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=S&TENDER=C&PARTNER=partner ID or
```

```
VeriSign&VENDOR=login&USER=login&PWD=password&ACCT=54997400000
00016&EXPDATE=0804&AMT=1.00"
```

C – Credit Returns the specified amount to the account holder. It is not necessary to have the credit card number available if you have the original VeriSign Reference ID (PNREF) that was issued with the transaction. If you issue a credit with the PNREF without specifying an amount, the amount of the original transaction is used.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=C&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password
&ACCT=5499740000000016&EXPDATE=0804&AMT=1.00"
```

or

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=C&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ORIGID=PA0102000
000"
```

A – Authorization Authorizes transactions that may be captured later. A delayed capture (D) transaction must be issued to capture the original authorization.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=A&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ACCT=54997400000
00016&EXPDATE=0804&AMT=1.00"
```

D - Delayed Capture Used to capture a previously authorized (A) transaction. The transaction is scheduled for settlement during the next settlement period. This provides support for delayed order fulfillment.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=D&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&ORIGID=PA0102000000&PWD=passw
ord"
```

V -Void A void is the reversal of a charge prior to the settlement process. A void prevents a transaction from being settled. A void does not release the authorization (hold on funds) on the cardholder's account.

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=V&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ORIGID=PA0102000
000"
```

F- Voice Authorization A voice authorization transaction may be performed after obtaining an approval code from the cardholder's issuing bank. This offline process establishes the transaction as a settleable item.

```
pfpro test-payflow.verisign.com 443  
"TRXTYPE=F&TENDER=C&PARTNER=partner ID or  
VeriSign&VENDOR=login&USER=login&PWD=password&AUTHCODE=543210&  
ACCT=5499740000000016&EXPDATE=0804&AMT=1.00"
```

I- Inquiry An inquiry transaction may be performed to check the result and status of a transaction.

```
pfpro test-payflow.verisign.com 443 "TRXTYPE=I&PARTNER=partner ID  
or  
VeriSign&VENDOR=login&USER=login&PWD=password&ORIGID=VABC12345  
678"
```

Commercial Card Transactions

A commercial card (also referred to as a purchase card, corporate card, or business card) is a credit card that is issued at the request of an employer. It is usually reserved for business-related charges. The card issuer provides specialized reporting for this card type so the employer can monitor the use of the card. There is no method for determining whether a card is a purchase card or a commercial card based on the card number.

To obtain the best bank interchange rates for commercial cards, you must pass additional information. Commercial card support and parameters vary from processor to processor. See Appendix A "Processors" for additional information.

Using Address Verification Service (AVS)

Note AVS is supported only by US banks — non-US banks return **X** or no value at all.

Merchants who wish to qualify for the lowest bank rate must pass Address Verification Service (AVS) information (street address and Zip code).

The processing network compares the passed AVS values with the values on file at the cardholder's bank and returns the character **Y**, **N**, or **X** for street address and for Zip code. **Y** means match, **N** means no match, **X** means the cardholder's bank does not support AVS.

Banks do not decline transactions based on the AVS result. This information is for advice only.

Requesting AVS for a Transaction

This example request include the AVS request parameters **STREET** and **ZIP**:

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=A&TENDER=C&PWD=password&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&ACCT=422222222222&EXPDATE=08
04&AMT=14.42&STREET=5199 JOHNSON&ZIP=94588"
```

Example AVS response:

```
RESULT=0&PNREF=VXW412345678&RESPMSG=APPROVED&AUTHCODE=123456
&AVSADDR=Y&AVSZIP=N
```

See “Credit Card Response Fields” on page 28 for descriptions of the **AVSADDR** and **AVSZIP** response fields. See Appendix A “Processors,” for processor-specific information.

Using Ampersand and Equal Sign Characters in Values

Because the ampersand (&) and equal sign (=) characters have special meanings in the ParmList, name/value pairs like **NAME=Ruff & Johnson**, and **COMMENT1=Level=5** are not valid.

You must employ a *length tag* to use these characters in the value field of a parameter. A length tag specifies the exact number of characters and spaces that appear in the value field. The following name/value pairs are valid:

```
NAME [14]=Ruff & Johnson
COMMENT1 [7]=Level=5
```

Transaction Responses

When a VeriSign transaction is initiated and completed, VeriSign returns a response string made up of name/value pairs separated by an ampersands.

Common Response Fields

Field	Description	Type	Length
PNREF	VeriSign Reference ID, a unique number that identifies the transaction.	Alpha-numeric	12
RESULT	The outcome of the attempted transaction. A result of 0 (zero) indicates the transaction was approved. Any other number indicates a decline or error.	Numeric	Variable
RESPMSG	The response message returned with the transaction result. Exact wording varies. Sometimes a colon appears after the initial RESPMSG followed by more detailed information.	Alpha-numeric	Variable

PNREF

The Reference ID field (**PNREF**) is a unique transaction identification number issued by VeriSign that identifies the transaction for billing and reporting purposes.

PNREF is 12 characters with the format **Vxxxxxxxxxxx**, for example, **VXYZ01234567**.

This value is also used as the **ORIGID** (Original ID) in delayed capture transactions (**TRXTYPE=D**), credits (**TRXTYPE=C**), and voids (**TRXTYPE=V**).

Result Status

The transaction result status response field (**RESULT**) is the first parameter returned from the VeriSign server. This status indicates the overall result 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.

Communications Error Results

A value 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 vps-support@verisign.com.

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
-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.

Result	Description
-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

Transaction Decline or Error RESULTS and RESPMSGs

A RESULT greater than zero indicates a decline or error. Exact wording of the RESPMSG (shown in **bold**) may vary. Sometimes a colon appears after the initial RESPMSG followed by more detailed information.

Table 3-9 VeriSign Transaction RESULTS/RESPMSGs

RESULT	RESPMSG/Explanation
1	User authentication failed
2	Invalid tender. Your merchant bank account does not support the following credit card type that was submitted.
3	Invalid transaction type. Transaction type is not appropriate for this transaction. For example, you cannot credit an authorization-only transaction.
4	Invalid amount
5	Invalid merchant information. Processor does not recognize your merchant account information. Contact your bank account acquirer to resolve this problem.
7	Field format error. Invalid information entered.
8	Not a transaction server
9	Too many parameters or invalid stream
10	Too many line items
11	Client time-out waiting for response
12	Declined. 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	Referral. 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.

Table 3-9 VeriSign Transaction RESULTS/RESPMSGs (Continued)

RESULT	RESPMSG/Explanation
19	Original transaction ID not found. The transaction ID you entered for this transaction is not valid.
20	Cannot find the customer reference number
22	Invalid ABA number
23	Invalid account number. Check credit card number and re-submit.
24	Invalid expiration date. Check and re-submit.
25	Transaction type not mapped to this host
26	Invalid vendor account
27	Insufficient partner permissions
28	Insufficient user permissions
50	Insufficient funds available
99	General error
100	Invalid transaction returned from host
101	Time-out value too small
102	Processor not available
103	Error reading response from host
104	Timeout waiting for processor response. Try your transaction again.
105	Credit error. Make sure you have not already credited this transaction, or that this transaction ID is for a creditable transaction. (For example, you cannot credit an authorization.)
106	Host not available
107	Duplicate suppression time-out
108	Void error. Make sure the transaction ID entered has not already been voided. If not, then look at the Transaction Detail screen for this transaction to see if it has settled. (The Batch field is set to a number greater than zero if the transaction has been settled). If the transaction has already settled, your only recourse is a reversal (credit a payment or submit a payment for a credit).
109	Time-out waiting for host response

Table 3-9 VeriSign Transaction RESULTS/RESPMSGs (Continued)

RESULT	RESPMSG/Explanation
111	Capture error. Only authorization transactions can be captured.
112	Failed AVS check. Address and Zip code do not match. An authorization may still exist on the cardholder's account.
113	Cannot exceed sales cap. For ACH transactions only.
114	CVV2 Mismatch. An authorization may still exist on the cardholder's account.
1000	Generic host error. This is a generic message returned by your credit card processor. The message itself will contain more information describing the error.

Credit Card Response Fields

The following fields are common to credit card processors.

Field	Description	Type	Length
AUTHCODE	Transactions approved by the bank receive an authorization code.	Alpha-numeric	6
AVSADDR	AVS address responses are for advice only. This process does not affect the outcome of the authorization. See "Using Address Verification Service (AVS)" on page 22.	Alpha Y, N, X, or no response	1
AVSZIP	AVS zip code responses are for advice only. This process does not affect the outcome of the authorization. See "Using Address Verification Service (AVS)" on page 22.	Alpha Y, N, X, or no response	1

Configuring Delayed Capture Transactions

Visa/MasterCard regulations prohibit merchants from capturing credit card transaction funds until product has shipped to the buyer. Because of this rule most processing networks implement a two-stage transaction solution. VeriSign refers to this as delayed capture processing. This process consists of an authorization (A) transaction followed by a delayed capture (D) transaction.

Step 1 Authorization Transaction

Sending a transaction for authorization is similar to a sale (S) transaction except that the transaction type is **A**. All other parameters should be passed in the same manner as a sale transaction.

The output for an authorization transaction is also the same as for a sale transaction. To capture this transaction later, you must save the PNREF returned from the successful authorization.

Note The authorization does not transfer any funds but rather places a hold on the cardholder's open-to-buy or credit limit. This lowers the cardholder's credit limit by the amount of the transaction.

Authorization Example

Issue Authorization-only Transaction

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=A&TENDER=C&PWD=password&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&ACCT=422222222222&EXPDATE=08
04&AMT=14.42&COMMENT1=STUFF&COMMENT2=MORE
STUFF&INVMUM=1234567890&STREET=5199 JOHNSON&ZIP=94588"
```

Authorization Response

```
RESULT=0&PNREF=vxyz01234567&RESPMSG=APPROVED&AUTHCODE=123456
&AVSADDR=Y&AVSZIP=N
```

The data returned in the PNREF field is required to capture the transaction later. This value is sent in the capture transaction described below.

Step 2 Delayed Capture Transaction

To convert a transaction from an authorization state to a captured state, you must send a delayed capture transaction to the VeriSign transaction server. Place the PNREF response from the original authorization transaction in the ORIGID field. (There is no need to retransmit the credit card or billing address information—it is

stored at VeriSign.) Only the following parameters are required for a delayed capture transaction:

Delayed Capture Transaction Parameters
TRXTYPE=D
TENDER=C
PARTNER=<merchant specific>
VENDOR=<merchant specific>
USER=<merchant specific>
PWD=<merchant specific>
AMT= (if the amount is different from the original transaction)
ORIGID=VXYZ01234567

If the capture succeeds, the amount of the sale is transferred to the merchant's account during the daily settlement process. If the capture does not succeed, the hold on the cardholder's open-to-buy is still in effect.

Delayed Capture Example

Issue Delayed Capture Transaction

```
pfpro test-payflow.verisign.com 443  
"TRXTYPE=D&TENDER=C&PWD=password&PARTNER=partner ID or  
VeriSign&VENDOR=login&USER=login&ORIGID=VXYZ00887892"
```

Response for Delayed Capture Transaction

```
RESULT=0&PNREF=VXYZ00895642&AUTHCODE=25TEST&AVSADDR=Y&AVSZIP  
=N
```

Capturing Transactions for Lower Amounts

You can capture an authorized transaction for an amount lower than the original authorization amount. To do this, issue a delayed capture and specify the lower amount.

```
pfpro test-payflow.verisign.com 443  
"TRXTYPE=D&TENDER=C&PWD=password&PARTNER=partner ID or
```

```
VeriSign&VENDOR=login&USER=login&ORIGID=VXYZ00887892&AMT=10.42
"
```

Capturing Transactions for Higher Amounts

You can capture an authorized transaction for an amount higher than the original authorization amount. To do this, issue a delayed capture and specify the higher amount.

Note The disadvantage to using this transaction is that you are charged for an extra transaction and the cardholder's open-to-buy is reduced by the sum of the original authorization-only amount and the final delayed capture amount.

Error Handling and Retransmittal

If an error occurs while processing a delayed capture transaction for a previous authorization, it is safe to retry the capture with values that will allow the VeriSign server to successfully process it. Conversely, if a capture for a previous authorization succeeds, subsequent attempts to recapture it will return an error.

Initiating Voice Authorizations

Sometimes processing networks decline transactions with a referral message indicating that you must call the cardholder's issuing bank to complete the transaction. The payment information is then submitted over the phone. If the transaction is approved, you are provided with an authorization code (AUTHCODE) for the transaction. You must send this AUTHCODE to the VeriSign server as part of a voice authorization (F) transaction.

Voice Authorization Transaction Example

```
pfpro test-payflow.verisign.com 443
"TRXTYPE=F&TENDER=C&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&ACCT=54997400000
00016&EXPDATE=0804&AMT=1.00&AUTHCODE=123456&COMMENT1=first
comment& and COMMENT2=second comment&INVM=1234567890"
```

Once a voice authorization has been approved, it is treated like a sale or a delayed capture transaction and it will be settled with no further action required. Like sale or delayed capture transactions, approved voice authorization transactions can be voided.

Logging Transaction Information

VeriSign maintains a record of all transactions executed on your account. The VeriSign Manager password-protected site (<https://manager.verisign.com>) allows you to access this record and use the information to help reconcile your accounting records.

This record is not the official bank statement. The credit card transaction summary that you receive from your acquiring bank is the official record.

In addition, VeriSign strongly recommends that you log all transaction results (except for credit card information) on your own system. At minimum, log the following data:

- PNREF
- Transaction Date
- Transaction Amount
- AUTHCODE

If you have any questions regarding a transaction, reference the **PNREF** (also referred to as a transaction ID.)

Testing Your Configuration

VeriSign provides a test configuration server to support testing and configuration. To configure your application for testing purposes, direct all transactions to *test-payflow.verisign.com*.

For specific information on testing, see the `Readme` file and example applications in the SDK that you downloaded.

Test Data

For more detailed information, see the `Readme` file and example applications in the SDK that you downloaded.

- If your processor is **FDMS Nashville**, use the data in Table 3-10 to test your configuration.
- You can use the data in the table for **American Express, EDS Aurora, FDMS South, Nova, and Vital**, but the responses may vary or may not work at all.

- For **Norwest** and **TeleCheck**, see Appendix A, “Processors.”
- For **Paymentech**, use real credit card numbers.

Table 3-10 Test credit card numbers

FDMS Nashville Test Cards/Numbers	
Credit Card	Number
American Express	378282246310005
Discover	6011111111111117
MasterCard	5105105105105100
MasterCard	5555555555551111
Visa	4242424242424242
Visa	4111111111111111

Use the following variables to generate the following results and response messages:

Table 3-11 FDMS Nashville test data

Variable	RESULT	RESPMSG
\$0 – \$100.00	0	Approved
\$100.01 – \$1000.00	13	Referral
\$1000.01 →	12	Declined
Any invalid expiration date	24	Invalid expiration date

CAUTION The variables in the table return the expected responses only if all other parameters (**TRXTYPE**, **TENDER**, **PARTNER**, **VENDOR**, **USER**, **PWD**, and so on) are correct. If you are testing AVS, the test servers typically return **X** for Zip and address.

Testing Payflow Pro

To test your application, direct all transactions to **test-payflow.verisign.com**. Transactions directed to this URL are processed through VeriSign's simulated payment network, enabling you to test the configuration and operation of your application or storefront — no money changes hands. (You must activate your account and configure your application for live transactions before accepting real orders.)

For detailed testing information, see the README file included with the downloaded SDK. The SDK also includes example applications with suggestions on including the client within your application.

Testing Guidelines

- You can use any mathematically valid card number (including any real card number) for testing. For your convenience, VeriSign provides test numbers.
- **Expiration Date** must be in the future (use the **mm/yy** format).
- To view the credit card processor that you have selected for testing, see **Account Info** → **Processor Info** in VeriSign Manager.

Test Data for All Processors Except FDC Nashville and Paymentech

Test Card Numbers

For your convenience, the following table lists test numbers:

Credit Card	Number
American Express	378282246310005
American Express	3530111333300000
American Express	373235387881007
American Express	38520000023237
Discover	6011111111111117
Discover	6011000990138616
MasterCard	5555111111111111
MasterCard	5105105105105100
Visa	4242424242424242
Visa	4111111111111111
Visa	42222222222222
Visa	4425215000006
Visa	4055011111111111

Test Result Based on Transaction Amount

The test numbers listed above should return an approval, referral, or decline when you submit the following transaction amounts:

Amount	RESULT (RESPMSG)
\$0 - \$100.00	0 (Approved)
\$100.01 - \$1000.00	13 (Referral)
\$1000.01 or more	12 (Declined)

Test Data for FDC Nashville and Paymentech

Test Result Based on Transaction Amount

This table lists test numbers that return results based on the transaction amount:

Credit Card	Number
American Express	378282246310005
Discover	6011111111111117
MasterCard	5555111111111111
Visa	4242424242424242
Visa	4111111111111111

The test numbers listed above (and all other card numbers) should return an approval, referral, or decline when you submit the following transaction amounts:

Amount	RESULT (RESPMSG)
\$0 - \$100.00	0 (Approved)
\$100.01 - \$1000.00	13 (Referral)
\$1000.01 or more	12 (Declined)

Test Result Based on Card Number

Use the following test card numbers to test for the corresponding result regardless of the transaction amount:

Credit Card	Number	RESULT (RESPMSG)
MasterCard	5105105105105100	0 (Approved)
Visa	42222222222222	0 (Approved)
American Express	3530111333300000	12 (Declined)
American Express	373235387881007	12 (Declined)
Visa	4425215000006	12 (Declined)
Visa	4055011111111111	13 (Referral)

Discover	6011000990138616	13 (Referral)
American Express	38520000023237	13 (Referral)

Testing Norwest and TeleCheck

For information on testing Norwest and TeleCheck, see Appendix A, “Processors.”

Testing Address Verification Service (AVS)

The VeriSign testing server simulates AVS by returning the value **X** for both **ZIP** and **STREET**. Billing addresses are not verified.

Going Live

When you are ready to go live, follow these steps:

- 1 Go to VeriSign Manager (<https://manager.verisign.com>).
- 2 Click the **Click Here to Go Live!** button and complete the VeriSign Registration/Enable Live Transactions screen.
- 3 Change **test-payflow.verisign.com** to **payflow.verisign.com** in your Payflow Pro integration.
 - Change **test-payflow.verisign.com** to **payflow.verisign.com** wherever **pfpro** is invoked. For the executable client, this is in your cgi script analogous to **cgitest.cgi** in the testing examples.
 - The individual Readme files for the other SDKs contain information about where test-payflow.verisign.com is used. Make the **payflow.verisign.com** change in these places.

Note You must use DNS resolution for transaction processing. In its effort to achieve high availability, VeriSign retains the right to change the IP address without notice. VeriSign cannot be held responsible for any outages that result.

Processors

American Express

Mail: American Express
 19640 N. 31st Avenue
 Phoenix, AZ 85027

Phone: 800-297-5555

Commercial Card Parameters

The following fields are recommended to obtain the best rates for processing commercial purchasing cards with American Express

Table A-1 American Express Commercial Card Parameters

Field	Description	Required	Type	Length
PONUM	Up to 17 alphanumeric characters, specified by the cardholder to identify the order. Usually used as a Purchase Order number.	No	Alpha-numeric	17
DESC	General description of the transaction.	No (but provides best rate when used)	Alpha-numeric	23
DESC1-4	Up to 4 lines of additional description of the charge.	No	Alpha-numeric	40

Table A-1 American Express Commercial Card Parameters (Continued)

Field	Description	Required	Type	Length
INVNUM	Merchant invoice number. (Also referred to as Supplier Reference Number). This generated reference number appears on merchant's bank reconciliation statement. Acquirer decides if this information will appear on the statement. PNREF numeric digits are the default.	No	Numeric	9
SHIPTOZIP	Ship to Zip code.	No (but provides best rate when used)	Alpha-numeric	6
SWIPE	Allows Track 1 and Track 2 data to be passed to enable a card-present transaction.	No	Alphanumeric	80
TAXAMT	Tax Amount. Do not include comma separators. Use 1199.95 instead of 1,199.95.	No (but provides best rate when used)	Currency	10

EDS Aurora

Mail: EDS
5400 Legacy Drive
M/S B1-2A-19
Plano, TX 75024

Phone: 800-526-9839

Note There are no unique parameters and codes for EDS Aurora. Use the appropriate parameters described in “Required Parameters” on page 13 and “Common Credit Card Parameters” on page 18.

FDMS Nashville

Mail: First Data Corporation
2525 Perimeter Place Drive
Suite 123
Nashville, TN 37214

Phone: 800-647-3722

Commercial Card Parameters

The following fields are recommended to obtain the best rates for processing commercial cards with FDMS Nashville.

Table A-2 FDMS commercial card parameters

Field	Description	Required	Type	Length
COMMCARD	One-character field representing type of commercial card account number sent. P Purchase Card C Corporate Card B Business Card U Unknown (default) N None	No (defaults to U - Unknown)	Alpha-numeric	1
DUTYAMT	Sometimes called import tax. Amount should always be a decimal. Exact amount to the cent (34.00, not 34). Do not include comma separators. Use 1199.95 instead of 1,199.95.	No	Currency	10
FREIGHTAMT	Freight Amount. Amount should always be a decimal. Exact amount to the cent (34.00, not 34). Do not include comma separators. Use 1199.95 instead of 1,199.95.	No	Currency	10
INVNUM	Merchant invoice number. This generated reference number appears on merchant's bank reconciliation statement. Acquirer decides if this information will appear on the statement. PNREF numeric digits are the default.	No	Numeric	10
PONUM	Purchase Order Number.	No (but provides best rate when used)	Alpha-numeric	25

Table A-2 FDMS commercial card parameters (Continued)

Field	Description	Required	Type	Length
SHIPTOZIP	Ship to Zip code.	No (but provides best rate when used)	Numeric	9
TAXAMT	Tax Amount. Amount should always be a decimal. Exact amount to the cent (34.00, not 34). Do not include comma separators. Use 1199.95 instead of 1,199.95.	No (but provides best rate when used)	Currency	10
TAXEXEMPT	Is the customer tax exempt? Y or N	No	Alpha	1

Additional Credit Card Parameter

In addition to the “Common Credit Card Parameters” on page 18, FDMS Nashville accepts the following parameter.

Field	Description	Required	Type	Length
INVNUM	Merchant invoice number. This generated reference number appears on merchant's bank reconciliation statement. Acquirer decides if this information will appear on the statement. PNREF numeric digits are the default.	No	Numeric	10

FDMS South

Mail: First Data Corporation
Business Payment Services Group
4000 Coral Ridge Drive
Coral Springs, FL 33065

Phone: 800-326-2217

Purchase Card Parameters

The following fields are recommended to obtain the best rates for processing purchase cards (Level 2/3) with FDMS South.

Table A-3 FDMS South Purchase Card Parameters

Field	Description	Required	Type	Length
CITY	Cardholder's city.	No	Alpha	13
COUNTRYCODE	Destination Country Code. Visa and MasterCard are different. Refer to Country Code tables. (See Appendix B, "Country Codes, Units of Measure, and Currency Codes.")	No	Alpha	3
CUSTCODE	Customer code/customer reference ID	No	Alpha-numeric	17
CVV2	3 or 4 digit code printed (not imprinted) on credit cards. CVV2 (Card Verification Value) is a fraud prevention tool. CVV2 for AmEx is 4 digits; for all other credit cards it is 3 digits.	No	Numeric	3 or 4
DISCOUNT	Discount amount on total sale	No	Currency	10
DUTYAMT	Sometimes called import tax. If the currency uses a decimal, then this parameter should specify the exact amount to the last decimal place (for example, 34.00, not 34). See "FDMS South Currency Codes and Decimal Positions" on page 83. Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95.	No	Currency	10
FIRSTNAME	Cardholder's first name.	No	Alpha	15

Table A-3 FDMS South Purchase Card Parameters (Continued)

Field	Description	Required	Type	Length
FREIGHTAMT	Freight Amount - If the currency uses a decimal, then this parameter should specify the exact amount to the last decimal place (for example, 34.00, not 34). See "FDMS South Currency Codes and Decimal Positions" on page 83. Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95.	No	Currency	10
INVNUM	The merchant invoice number is a generated reference number that will appear on merchant's bank reconciliation statement. The acquirer decides whether this information will appear on the statement. PNREF numeric digits are used as the default.	No	Numeric	10
LASTNAME	Cardholder's last name.	No	Alpha	15
ORDERDATE	Order date: Format is <i>mmdyy</i> with no slashes or dashes. Example: Feb. 12, 2000 would be 021200.	No	Numeric	6
PONUM	Purchase Order Number / Merchant related data	No (but provides best rate when used)	Alpha-numeric	25
SHIPFROMZIP	Ship from zip/postal code.	No (but provides best rate when used)	Numeric	9
SHIPTOZIP	Ship to zip/postal code.	No (but provides best rate when used)	Numeric	9
STATE	Cardholder's state.	No	Alpha	2
SWIPE	Allows Track 1 and Track 2 data to be passed to enable a card-present transaction.	No	Alphanumeric	80

Table A-3 FDMS South Purchase Card Parameters (Continued)

Field	Description	Required	Type	Length
TAXAMT	Tax Amount - If the currency uses a decimal, then this parameter should specify the exact amount to the last decimal place (for example, 34.00, not 34). See "FDMS South Currency Codes and Decimal Positions" on page 83. Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95.	No (but provides best rate when used)	Currency	10
TAXEXEMPT	Is the customer tax exempt? Y or N	No	Alpha	1

Purchase Card Line Item Parameters

Line item data describes the details of the item purchased and can be passed for each transaction. The convention for passing line item data in name/value pairs is that each name/value starts with 'L_' and ends with 'n' where n is the line item number. For example L_QTY0=1 is the quantity for line item 0 and is equal to 1, with 'n' starting at 0.

Field	Description	Required	Type	Length
L_QTYn	Quantity (whole units only)	Yes	Numeric	10
L_UPCn	Item commodity code	No	Alpha-numeric	12
L_DESCn	Item description	No	Alpha-numeric	35
L_UOMn	Item unit of measure. See "Units of Measure" on page 80.	No	Alpha	3
L_COSTn	Cost per item, excluding tax	No	Currency	10
L_PRODCode	Supplier specific product code	No	Alpha-numeric	12
L_DISCOUNTn	Discount per line item	No	Currency	10
L_AMTn	Total line item amount including tax and discount. + for Debit, - for credits	Yes	Currency	10
L_TAXAMTn	Line item Tax amount	No	Currency	10

Purchase Card Level 2 and 3 Parameter Example

```
STATE=CA&FIRSTNAME=John&LASTNAME=Smith&CITY=Redwood&COUNTRYC  
ODE=USA&CUSTCODE=12345&DISCOUNT=.25&DUTYAMT=34.00&FREIGHTAMT  
=12.00&INVNUM=1234567890&ORDERDATE=021700&PONUM=123456789012  
3456789012345&SHIPFROMZIP=940151234&SHIPTOZIP=94065&TAXAMT=1  
.00&TAXEXEMPT=Y
```

Line Item Parameter Example

```
"L_QTY1=1&L_UPC1=PN&L_DESC1=Test&L_UOM1=INQ&L_COST1=1.00&L_P  
RODCODE1=12345&L_DISCOUNT1=.25&&L_AMT1=.75&L_TAXAMT1=0" 30
```

Global Payments

Mail: Global Payments, Inc.
Four Corporate Square
Atlanta, Georgia 30329-2010

Phone: 800-622-2318

Note Global Payments uses no unique parameters or codes. Use the appropriate parameters described in “Required Parameters” on page 13 and “Common Credit Card Parameters” on page 18.

Norwest

Mail: Norwest Operations Center
Attn: ACH
255 2nd Ave South
Minneapolis, MN 55479

Phone: 800-745-2426

About the VeriSign-Norwest ACH Service

Payflow Pro is designed to provide ACH transactions through the Norwest ACH processing network. The VeriSign-Norwest ACH service consists of two types of APIs: the Transaction API and Inquiry API. Used together, these interfaces provide a facility for submitting ACH transactions.

Norwest ACH Parameters

The following are the available parameters for submitting ACH transactions.

Table A-4 Norwest ACH Parameters

Field	Description	Required	Type	Length
TRXTYPE	'S'ale or 'C'redit – Transaction type	Yes	Alpha uppercase	1
PRENOTE	Y. A prenote is a transaction with no amount that you can use to verify account validity. A receiving bank is not required to respond to a prenote.	No (defaults to N)	Y or N	1
TENDER	'A' – ACH	Yes	Alpha uppercase	1
ACCT	Customer's account number	Yes	Numeric	17
AMT	Dollar amount (USD)	Yes, unless doing a prenote	Numeric	10 with decimal
ABA	Customer's transit ABA routing number	Yes	Numeric	9
ACCTTYPE	'S'avings, 'C'hecking – Customer's account type	Yes	Alpha uppercase	1
NAME	Customer's name on the account	No, but suggested	Alpha-numeric uppercase	30
FIRSTNAME	Customer's first name on the account	No, but suggested	Alpha-numeric uppercase	30
MIDDLENAME	Customer's middle name on the account	No, but suggested	Alpha-numeric uppercase	30

Table A-4 Norwest ACH Parameters (Continued)

Field	Description	Required	Type	Length
LASTNAME	Customer's last name on the account	No, but suggested	Alpha-numeric uppercase	30
COMMENT1	User-defined field for reporting/auditing purposes.	No	Alpha-numeric	128
COMMENT2	User-defined field for reporting/auditing purposes.	No	Alpha-numeric	128
DESC*	Description of the transaction.	Yes	Alpha-numeric	80

*This parameter only applies if you are using CCD format.

Norwest Inquiry Parameters

The following name value pairs are required for submitting inquiries for previously submitted ACH transactions.

Name	Description	Required	Type	Length
TRXTYPE	'I'quiry – Transaction type	Yes	Alpha uppercase	1
TENDER	'A' – ACH	Yes	Alpha uppercase	1
ORIGID	PNREF	Yes	Alphanumeric Uppercase	12

Norwest Voiding Parameters

The following name value pairs are required for voiding previously submitted ACH transactions.

Name	Description	Required	Type	Length
TRXTYPE	'V'oiding – Transaction type	Yes	Alpha uppercase	1
TENDER	'A' – ACH	Yes	Alpha uppercase	1
ORIGID	PNREF	Yes	Alphanumeric Uppercase	12

Norwest Inquiry Response Keywords and Descriptions

Name	Description
RESULT	Result for this inquiry ('0' for good)
ORIGRESULT	Original result for the transaction in question
STATUS	Current status code of the transaction
RESPMSG	Human-readable message describing the status/result

Norwest Sample Inquiry Transaction

The following posts an inquiry request for a previously submitted ACH transaction:

```
pfpro payflow.verisign.com 443 "&PARTNER=partner ID or
VeriSign&VENDOR=login&USER=login&PWD=password&TRXTYPE=I&TENDER
=A&ORIGID=VXYZ01475826"
```

The result may appear as:

```
RESULT=0&ORIGRESULT=A&STATUS=P02&RESPMSG=Settle request has
not yet been sent&
```

Norwest Status Codes

The status code table below denotes return values for the **STATUS NAME=value** pair. All codes (with the exception of P02, P03, and P15) are NACHA (National Automated Clearing House Association) specification reject and return reason codes.

- P02, P03, and P15 are VeriSign-specific and are used to describe the status of a transaction with respect to handling by VeriSign. Transactions are collected daily until the merchant-specified settlement time is reached, at which time all transactions are submitted to Norwest for settlement.

Note Test transactions need to have a valid ABA routing number or they will fail VeriSign's Mod 10 check. All test transactions with **RESULT=0** will show an initial status of P02. Response Message Codes for FDMS South can be found in the *VeriSign Manager User Guide*. (Processor Response Message Codes are codes that sometimes appear in the Response Message field of the VeriSign Manager *Transaction Detail* screen.)

Table A-5 Norwest Status Codes

Code	Reason	Description
C01	Incorrect account number	Account number incorrect or formatted incorrectly
C02	Incorrect transit/routing number	Once valid transit/routing number must be changed
C03	Incorrect transit/routing number and account number	Once valid transit/routing number must be changed and causes a change to account number structure
C04	Account name change	Customer has changed name or ODFI submitted name incorrectly
C05	Incorrect transaction code	Entry posted to demand account should contain savings transaction codes or vice versa
C06	Incorrect account number and transit code	Account number must be changed and transaction code should indicate posting to another account type (demand/savings)
C07	Incorrect transit/routing number, account number and transaction code	Changes required in three fields indicated
C09	Incorrect individual ID number	Individual's ID number is incorrect
C10	Incorrect company name	Company name is no longer valid and should be changed.
C11	Incorrect company identification	Company ID is no longer valid and should be changed
C12	Incorrect company name and company ID	Both the company name and company id are no longer valid and must be changed
P02	Pending	Settle request has not yet been sent
P03	Submitted	Settle request has been sent
P05	Will not settle	Status for inquiry and voided transactions
P06	Will not settle	Status for void transactions
P15	Rejected	Rejected by the VeriSign server. Check submitted transaction data.

Table A-5 Norwest Status Codes (Continued)

Code	Reason	Description
R01	Insufficient funds	Available balance is not sufficient to cover the amount of the debit entry
R02	Account closed	Previously active amount has been closed by the customer of RDFI
R03	No account/unable to locate account	Account number does not correspond to the individual identified in the entry, or the account number designated is not an open account
R04	Invalid account number	Account number structure is not valid
R06	Returned per ODFI request	ODFI requested the RDFI to return the entry
R07	Authorization revoked by customer	Receiver has revoked authorization
R08	Payment stopped	Receiver of a recurring debit has stopped payment of an entry
R09	Uncollected funds	Collected funds are not sufficient for payment of the debit entry
R10	Customer advises not authorized	Receiver has advised RDFI that originator is not authorized to debit his account
R11	Check truncation entry return	To be used when returning a check truncation entry
R12	Branch sold to another RDFI	RDFI unable to post entry destined for an account maintained at a branch sold to another financial institution
R13	RDFI not qualified to participate	Financial institution does not receive commercial ACH entries
R14	Representative payee deceased or unable to continue in that capacity	The representative payee authorized to accept entries on behalf of a beneficiary is either deceased or unable to continue in that capacity
R15	Beneficiary or account holder	(Other than representative payee) deceased* - (1) the beneficiary entitled to payments is deceased or (2) the account holder other than a representative payee is deceased
R16	Account frozen	Funds in account are unavailable due to action by RDFI or legal order
R17	File record edit criteria	Fields rejected by RDFI processing (identified in return addenda)
R18	Improper effective entry date	Entries have been presented prior to the first available processing window for the effective date.
R19	Amount field error	Improper formatting of the amount field
R20	Non-transaction account	Entry destined for non-transaction account defined by reg. D

Table A-5 Norwest Status Codes (Continued)

Code	Reason	Description
R21	Invalid company ID number	The company ID information not valid (normally CIE entries)
R22	Invalid individual ID number	Individual id used by receiver is incorrect (CIE entries)
R23	Credit entry refused by receiver	Receiver returned entry because minimum or exact amount not remitted, account is subject to litigation, or transaction represents an overpayment, originator is not known to receiver or receiver has not authorized this credit entry to this account
R24	Duplicate entry	RDFI has received a duplicate entry
R25	Addenda error	Improper formatting of the addenda record information
R26	Mandatory field error	Improper information in one of the mandatory fields
R27	Trace number error	Original entry trace number is not valid for return entry; or addenda trace numbers do not correspond with entry detail record
R28	Transit routing number check digit error	Check digit for the transit routing number is incorrect
R29	Corporate customer advises not authorized	RDFI has been notified by corporate receiver that debit entry of originator is not authorized
R30	RDFI not participant in check truncation program	Financial institution not participating in automated check safekeeping application
R31	Permissible return entry (CCD and CTX only)	RDFI has been notified by the ODFI that it agrees to accept a CCD or CTX return entry
R32	RDFI non-settlement	RDFI is not able to settle the entry
R33	Return of XCK entry	RDFI determines at its sole discretion to return an XCK entry; an XCK return entry may be initiated by midnight of the sixtieth day following the settlement date if the XCK entry
R34	Limited participation RDFI	RDFI participation has been limited by a federal or state supervisor
R35	Return of improper debit entry	ACH debit not permitted for use with the CIE standard entry class code (except for reversals)

Nova

Mail: Nova Information Systems, Inc.
Knoxville Operations Center
7300 Chapman Highway
Knoxville, TN 37920-6609

Phone: 800-725-1243

Nova Commercial Card Parameters

The following fields are recommended to obtain the best rates for processing commercial cards with Nova:

Field	Description	Required	Type	Length
COMMCARD	This is a one-character field representing the type of commercial card account number being sent. P Purchase Card C Corporate Card B Business Card U Unknown (default) N None	No (defaults to U - Unknown)	Alphanumeric	1
PONUM	Purchase Order Number	No (when used provides best rate)	Alphanumeric	25
TAXAMT	Tax Amount - The amount should always specify a decimal, and the exact amount, to the cent (34.00, not 34). Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95.	No (when used provides best rate)	Currency	10

Paymentech

Mail: Paymentech
4 Northeastern Blvd.
Salem, NH 03079

Phone: 800-782-1266

Additional Credit Card Parameters

In addition to the “Common Credit Card Parameters” on page 18, Paymentech accepts the following parameters. For best AVS results, pass the city and state parameters in the parameter list.

Field	Description	Required	Type	Length
CITY	Cardholder's billing city.	No	Alpha	20
CVV2	3 or 4 digit code printed (not imprinted) on credit cards. CVV2 (Card Verification Value) is a fraud prevention tool. CVV2 for AmEx is 4 digits; for all other credit cards it is 3 digits.	No	Numeric	3 or 4
INVNUM	Merchant invoice number. This generated reference number appears on merchant's bank reconciliation statement. Acquirer decides if this information will appear on the statement. PNREF numeric digits are the default.	No	Numeric	10
STATE	Cardholder's billing state.	No	Alpha	2

TeleCheck

Mail: TeleCheck Merchant Services
PO Box 4513
Houston, TX 77210-4513

Phone: 800-366-1054 (Merchant Services)

TeleCheck Parameters

The following parameters are used for processing electronic checks through TeleCheck. Many of these parameters are not used when processing credit card transactions.

Table A-6 TeleCheck Parameters

Field	Description	Required	Type	Length
AMT	This is the transaction amount in U.S. dollars. The transaction amount should always specify a decimal, and the exact amount to the cent (for example, 34.00, instead of 34). Do not include comma separators in the amount. Use 1199.95 instead of 1,199.95.	Yes	Numeric USD only.	7
CITY	Account holder's city	Yes	Alpha	20
COMMENT1	User-defined field for reporting and auditing purposes.	No	Alphanumeric	128
COMMENT2	User-defined field for reporting and auditing purposes.	No	Alphanumeric	128
CHKNUM	Account holder's next unused (available) check number	Yes	Numeric	7
DL	Driver's license number. Format is: Xx = State Code Nnnnnnnn – DL Number	Yes, unless SS is provided	Alphanumeric	33
DOB	Account holder's date of birth. Format is: MMDDYYYY	No	Alphanumeric	8
EMAIL	Account holder's e-mail address	Yes	Alphanumeric	40

Table A-6 TeleCheck Parameters (Continued)

Field	Description	Required	Type	Length
INVNUM	Check invoice number	No	Alphanumeric	17
MICR	Stands for Magnetic Ink Check Reader. This is the entire line of numbers at the bottom of all checks. It includes the transit number, account number, and check number.	Yes	Alphanumeric	35
NAME	Account holder's name, as it appears on the check	Yes	Alphanumeric	30
PARTNER	This field is case-sensitive. Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .	Yes	Alphanumeric	12
PHONENUM	Account holder's telephone number	No	Numeric	20
PWD	Case-sensitive password defined at registration with VeriSign.	Yes	Alphanumeric	12
SS	Account holder's social security number	Yes, unless DL is provided	Alphanumeric	35
STATE	Account holder's state	Yes	Alpha	2
STREET	Account holder's street address	Yes	Alphanumeric	30
TENDER	Tender type field indicates what kind of tender is being used. Use K only.	Yes	Alpha	1
USER	This field is case-sensitive. For now you must use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.	Yes	Alphanumeric	12
VENDOR	The case-sensitive login that you defined at registration.	Yes	Alphanumeric	12

Table A-6 TeleCheck Parameters (Continued)

Field	Description	Required	Type	Length
TRXTYPE	Used to indicate the type of transaction that should be processed. Use S only.	Yes	Alpha	1
ZIP	Used to specify the account holder's zip code (spaces, dashes and non-numeric characters should be excluded)	Yes	Numeric	9

TeleCheck Sample Response

Here is a sample response for a TeleCheck transaction:

```
RESULT=0&PNREF=VXYZ01234567&HOSTCODE=000500&RESPMSG=Approved
```

TeleCheck Hostcodes

This parameter is used to return the processor's response code for the transaction. In the case of TeleCheck, it returns a six-digit TeleCheck system response code that describes the results of the authorization attempt. This section contains a complete list of TeleCheck system response codes. Many of these codes will not be encountered under normal operating conditions, but they are included as a troubleshooting aid.

For online electronic check authorizations through TeleCheck, the integrated application is required to display certain verbiage when certain system response codes are returned.

General Failure

Code	Response	Description	Frequency
000100	General Failure	General host based failure	Rare
000101	Invalid Value	Invalid for one or more fields in transaction	Common
999999	Unknown Response	TeleCheck received an unknown response	Rare

Inquiry Declined

Table A-7 Inquiry Declined

Code	Response	Description	Frequency
000200	Preauth Declined	Declined by credit card or Telco network (LIDB)	Common
000201	PIN Mismatch	Mismatch on PIN stored in TeleCheck database	Not Used
000210	Negative Card Record ¹	Temporary and permanent blocks. Prior OTB decline, sale decline or CS block Transaction falls below minimum scoring standards.	Common
000215	Negative ANI Record	ANI previously blocked by CS	Common
000220	Chargeback Card	Card with chargeback history	Common
000225	Chargeback ANI	ANI with chargeback history	Common
000230	Exceed card profile ²	Card has exceeded usage limits	Uncommon
000240	Too many Cards ²	ANI has excessive number of cards	Uncommon
000250	Exceed ANI profile ²	ANI has exceeded usage limits	Uncommon
000260	Too Many Phones ²	Card has been used from excessive ANI	Uncommon
000270	OTB/AVS Decline	OTB decline and AVS mismatch	AVS OTB only
000271	OTB/AVS Decline	OTB approved and AVS mismatch	AVS OTB only
000272	OTB/AVS Decline	OTB decline and AVS match	AVS OTB only
000280	Risk Referral	Temporary Risk referral, AVS necessary	Common

Table A-7 Inquiry Declined (Continued)

Code	Response	Description	Frequency
000281	Card Not Qualified	Card does not meet minimum bank restrictions	Not Used
000282	PB Risk Referral	Private billing risk referral, AVS necessary	PB Only

¹ Most frequently used for risk scoring declines, where a transaction falls below minimum standards.

² This data is included in risk scoring decisions and that response (210) has higher precedence.

Inquiry Approved

Code	Response	Description	Frequency
000400	OTB Approved	Preauth approved. AVS matches if provided.	Common
000401	No Response	No response from credit card network for preauth.	Common
000402	AVS Time-out	Preauth approved, AVS timed out	AVS only
000403	PB Approved	Private billing approved.	PB only
000410	Positive Record	Previous positive history.	Common
000420	Test card Approved	Test Card	Common
000421	OTB/AVS Approval	Preauth Approved, AVS match	AVS only
000503	ANI Bill approved	900/TELCO billing approved	ANI bill only

Sale Declined

Code	Response	Description	Frequency
000300	Sale Declined	Sale declined by credit card network	Common
000301	Sale Rejected	Sale does not meet risk standards	Common
000804	Check Declined	Direct Check Sale declined negative data	Direct Check
000805	Check Declined	Direct Check Sale Decline Scoring	Direct Check
000807	Check Failure	Direct Check Sale	Direct Check

Sale Approved

Code	Response	Description	Frequency
000500	Sale Approved	Sale Approved by credit card network	Common
000501	Sale Time-out	Sale transaction time-out in credit card network	Common

Code	Response	Description	Frequency
000502	Test Card	Test card sale approved (never billed)	Common
000504	ANI Sale Approved	900/Telco sale approved	ANI bill only
000505	PB Sale Approved	Private billing sale approved	PB only
000800	Sale Approved	Direct Check Sale/ECA approved	Direct Check
000801	Sale Approved	Direct Check Sale approved (no ECA)	Direct Check
000802	Sale Approved	Direct Check Sale/ECA approved no guarantee	Direct Check
000803	Sale Approved	Direct Check Sale approved no ECA no guarantee	Direct Check

Submitting TeleCheck Test Transactions

VeriSign provides a test configuration to support your testing and configuration needs. To configure your application for testing purposes, use the following information:

HostAddress	test-payflow.verisign.com
HostPort	443
PARTNER	Your partner ID is provided to you by the authorized VeriSign Reseller who signed you up for the Payflow Pro service. If you signed up yourself, use <i>VeriSign</i> .
VENDOR	Your case-sensitive login that you defined at registration.
USER	For now you must use your login for this parameter. In future releases you will be able to use this parameter to create multiple users for a single account.
PWD	The case-sensitive password defined at registration with VeriSign.

Use the following data for your test transactions:

DL State	CA
DL Number	123456

MICR	see test transaction data below
CHKNUM	see test transaction data below

MICR is the string of numbers at the bottom of an account holder's check. Use the list of test MICR values to test transactions. Multiple transactions sent in succession using the same MICR will not return the predicted response, due to the nature of the TeleCheck approval process.

The numbers in the CHKNUM field must match the last four digits in the MICR field, or the test will return an invalid response. These numbers only work when connecting to the test host (see above).

MICR	CHECKNUM	ERRCODE	TeleCheck Result
1234567804390850001001	1001	000800	Check Approved ECA
1234567804390850011001	1001	000801	Check Approved No ECA
1234567804390850021001	1001	000802	Check Approved ECA, No Guarantee
1234567804390850031001	1001	000803	Check Approved No ECA, No Guarantee
1234567804390850041001	1001	000804	Check Decline Negative Data
1234567804390850051001	1001	000805	Check Decline Scoring
1234567804390850071001	1001	000807	Check Failed

Preparing for TeleCheck Production Transactions

Before going into production with your check integration, you must certify your storefront with TeleCheck. To begin the certification process, send an e-mail to ica_certification@telecheck.com. Be sure to include the following information:

- Your test Web site address where test transactions can be processed
- The name, e-mail address and phone # of the person to contact about any needed corrections.

The certification process usually takes 2-3 days.

Vital

Mail: Vital
Visanet Processing Services
8320 South Hardy Road
Tempe, AZ 85284

Phone: 800-847-2772 (Help Desk)

Vital does not require unique parameters or codes. Use the appropriate parameters described in “Required Parameters” on page 13 and “Common Credit Card Parameters” on page 18.

Country Codes, Units of Measure, and Currency Codes

MasterCard Country Codes

ALBANIA	ALB
ALGERIA	DZA
AMERICAN SAMOA	ASM
ANDORRA	AND
ANGOLA	AGO
ANGUILLA	AIA
ANTARCTICA	ATA
ANTIGUA	ATG
AO PEOPLES DEMOCRATIC	LAO
APHGANISTAN	AFG
ARGENTINA	ARG
ARMENIA	ARN
ARUBA	ABW
AUSTRALIA	AUS
AUSTRIA	AUT
AZERBAIJAN	AZE
BAHAMAS	BHS
BAHRAIN	BHR
BANGLADESH	BGD
BARBADOS	BRB
BELARUS	BLR

BELGIUM	BEL
BELIZE	BLZ
BENIN	BEN
BERMUDA	BMU
BHUTAN	BTN
BOLIVIA	BOL
BOSNIA AND HERZIGOVINA	BIH
BOTSWANA	BWA
BOUVET ISLAND	BVT
BRAZIL	BRA
BRITISH INDIAN OCEAN TERRITORY	IOT
BRUNEI	BRN
BULGARIA	BGR
BURKINA FASO	BFA
BURUNDI	BDI
CAMBODIA	KHM
CANADA	CAN
CAPE VERDE	CPV
CAYMAN ISLANDS	CYM
CENTRAL AFRICAN REPUBLIC	CAF
CHAD	TCD
CHILE	CHL
CHINA	CHN
CHRISTMAS ISLAND	CXR
CMEROON, UNITED REP.	CMR
COCOS (KEELING) ISLAND	CCK
COLUMBIA	COL
COMOROS	COM
CONGO	GOG
COOK ISLANDS	COK
COSTA RICA	CRI

COTED'IVOIRE	CIV
CROATIA	HRV
CYPRUS	CYP
CZECH REPUBLIC	CZE
DENMARK	DNK
DJIBOUTI	DJI
DOMINICA	DMA
DOMINICAN REPUBLIC	DOM
EL SALVADOR	SLV
EQUATORIAL GUINEA	GNQ
ESTONIA	EST
ETHIOPIA	ETH
FAEROE ISLANDS	FRO
FALKLAND ISLANDS (MALVINAS)	FLK
FIJI	FJI
FINLAND	FIN
FRANCE	FRA
FRENCH GUIANA	GUF
FRENCH POLYNESIA	PYF
FRENCH SOUTHERN TERRITORY	ATF
GABON	GAB
GAMBIA	GMB
GEORGIA	GEO
GERMAN DEMOCRATIC REP	DDR
GERMANY	DEU
GHANA	GHA
GIBRALTER	GIB
GRECE	GRC
GREENLAND	GRL
GRENADA	GRD
GUADALUPE	GLP

GUAM	GUM
GUATEMALA	GTM
GUINEA	GIN
GUINEA-BISSAU	GNB
GUYANA	GUY
HAITI	HTI
HEARD & MCDONALDS ISLAND	HMD
HONDURAS	HND
HONG KONG	HKG
HUNGARY	HUN
ICELAND	ISL
INDIA	IND
INDONESIA	IDN
IRAN	IRN
IRAQ	IRQ
IRELAND	IRL
ISRAEL	ISR
ITALY	ITA
JAMAICA	JAM
JAPAN	JPN
JORDAN	JOR
KAZAKHSTAN	KAZ
KENYA	KEN
KOREA, REPUBLIC OF	KOR
KUWAIT	KWT
KYRGYZSTAN	KGZ
LATVIA	LVA
LEBANON	LBN
LESOTHO	LSO
LIBERIA	LBR
LIBYAN ARAB JAMAHIRIYA	LBY
LIECHTNSTIEN	LIE

LITHUANIA	LTU
LUXEMBOURG	LUX
MACAU	MAC
MALAYSIA	MYS
MALDIVES	MDV
MALI	MLI
MALTA	MLT
MANACO	MCO
MARSHALL ISLANDS	MHL
MATINIQUE	MTQ
MAURITANIA	MRT
MAURITIUS	MUS
MEXICO	MEX
MICRONESIA	FSM
MOLDOVA	MDA
MONGOLIA	MNG
MONTSERRAT	MSR
MOROCCO	MAR
MOZAMBIQUE	MOZ
MYANMAR	MMR
NAMIBIA	NAM
NAURU	NRU
NEGEL	SEN
NEPAL	NPL
NETHERLANDS	NLD
NETHERLANDS ANTILLES	ANT
NEW CALDONIA	NCL
NEW ZEALAND	NZL
NICARAGUA	NIC
NIGER	NER
NIGERIA	NGA
NIUE	NIU
NORFOLK ISLAND	NFK

NORTHERN MARIANA ISLAND	MNP
NORWAY	NOR
OMAN	OMN
PAKISTAN	PAK
PALAU	PLW
PANAMA	PAN
PAPAU NEW GUINEA	PNG
PARAGUAY	PRY
PERU	PER
PHILIPPINES	PHI
PITCAIRN ISLAND	PCN
POLAND	POL
PORTUGUL	PRT
PUERTO RICO	PRI
QATAR	QAT
REUNION	REU
ROMANIA	ROM
RUSSIAN FERERATION	RUS
RWANDA	RWA
SAMOA	WSM
SAN MARINO	SMR
SAN TOME AND PRICIPEL	STP
SAUDI ARABIA	SAU
SEYCHELLES	SYC
SIERRA LEONE	SLE
SINGAPORE	SGP
ST. HELENA	SHN
ST. KITTS-NEVIS-ANGUI LLA	KNA
ST. LUCIA	LCA
ST. PIERRE AND MIQUELON	SPM

ST. VINCENT AND THE GRENADINES	VCT
SUDAN	SDN
SURINAM	SUR
SVALBARD & JAN MAYEN IS.	SJM
SWAZILAND	SWZ
SWEDEN	SWE
SWITZERLAND	CHE
SYRIAN ARAB REPUBLIC	SYR
TAIWAN, PROVIDENCE OF CHINA	TWN
TAJKISTAN	TJK
TANZANIA, UNITED REPUBLIC	TZA
THAILAND	THA
TOGO	TGO
TOKELAU	TKL
TONGA	TON
TRINIDAD AND TOBAGO	TTO
TUNISIA	TUN
TURKEY	TR
TURKMENISTAN	TM
TURKS & CAICOS ISLANDS	TC
TUVALU	TUV
U.S. MINOR OUTLYING ISL.	UMI
UGANDA	UGA
UKRAINIAN SSR	UKR
UNITED ARAB EMIRATES	ARE
UNITED KINGDOM	GBR
UNITED STATES	USA

URAGUAY	URY
UZBEKISTAN	UZB
VANUATU	VUT
VATICAN CITY STATE	VAT
VENEZUELA	VEN
VIETNAM	VNM
VIRGIN ISLANDS BRITISH	VGB
VIRGIN ISLANDS US	VIR
WALLIS AND FUTUNA IS	WLF
WESTERN SAHARA	ESH
YEMEN	YEM
YUGOSLAVIA	YUG
ZAIRE	ZAR
ZAMBIA	ZMB
ZIMBABWE	RHO

Visa Country Codes

ALBANIA	AL
ALGERIA	DZ
AMERICAN SAMOA	AS
ANDORRA	AD
ANGOLA	AO
ANGUILLA	AI
ANTARCTICA	AQ
ANTIGUA	AG
APHGANISTAN	AF
ARGENTINA	AR
ARMENIA	AM
ARUBA	AW
AUSTRALIA	AU
AUSTRIA	AT
AZERBAIJAN	AZ
BAHAMAS	BS
BAHRAIN	BH
BANGLADESH	BD
BARBADOS	BB
BELARUS	BY
BELGIUM	BE
BELIZE	BZ
BENIN	BJ
BERMUDA	BM
BHUTAN	BT
BOLIVIA	BO
BOSNIA AND HERZIGOVINA	BA
BOTSWANA	BW
BOUVET ISLAND	BV
BRAZIL	BR
BRITISH INDIAN OCEAN TERRITORY	IO
BRUNEI	BN

BULGARIA	BG
BURKINA FASO	BF
BURUNDI	BI
CAMBODIA	KH
CANADA	CA
CAPE VERDE	CV
CAYMAN ISLANDS	KY
CENTRAL AFRICAN REPUBLIC	CF
CHACOS (KEELING) ISLAND	CC
CHAD	TD
CHILE	CL
CHINA	CN
CHRISTMAS ISLAND	CX
CMEROON, UNITED REP.	CM
COLUMBIA	CO
COMOROS	KM
CONGO	CG
COOK ISLANDS	CK
COSTA RICA	CR
COTED'IVOIRE	CI
CROATIA	HR
CYPRUS	CY
CZECH REPUBLIC	CZ
DENMARK	DK
DJIBOUTI	DJ
DOMINICA	DM
DOMINICAN REPUBLIC	DO
EAST TIMOR	TP
ECUADOR	EC
EGYPT	EG

EL SALVADOR	SV
EQUATORIAL GUINEA	GQ
ERITREA	ER
ESTONIA	EE
ETHIOPIA	ET
FAEROE ISLANDS	FO
FALKLAND ISLANDS	FK
FIJI	FJ
FINLAND	FI
FRANCE	FR
FRENCH GUIANA	GF
FRENCH METROPOLITAN	FX
FRENCH POLYNESIA	PF
FRENCH SOUTHERN TERRITORY	TF
GABON	GA
GAMBIA	GM
GEORGIA	GE
GERMANY	DE
GHANA	GH
GIBRALTER	GI
GRECE	GR
GREENLAND	GL
GRENADA	GD
GUADALUPE	GP
GUAM	GU
GUATEMALA	GT
GUINEA	GN
GUINEA-BISSAU	GW
GUYANA	GY
HAITI	HT
HEARD & MCDONALDS ISLAND	HM
HONDURAS	HN
HONG KONG	HK

HUNGARY	HU
ICELAND	IS
INDIA	IN
INDONESIA	ID
IRAN	IR
IRAQ	IQ
IRELAND	IE
ISRAEL	IL
ITALY	IT
JAMAICA	JM
JAPAN	JP
JORDAN	JO
KAZAKHSTAN	KZ
KENYA	KE
KIRIBATI	KI
KOREA, REPUBLIC OF	KR
KUWAIT	KW
KYRGYZSTAN	KG
LAO PEOPLES DEMOCRATIC	LA
LATVIA	LV
LEBANON	LB
LESOTHO	LS
LIBERIA	LR
LIBYAN ARAB JAMAHIRIYA	LY
LIECHTNSTIEN	LI
LITHUANIA	LT
LUXEMBOURG	LU
MACAU	MO
MACEDONIA	MK
MADAGASCAR	MG
MALAWI	MW
MALAYSIA	MY
MALDIVES	MV

MALI	ML
MALTA	MT
MANACO	MC
MARSHALL ISLANDS	MH
MATINIQUE	MQ
MAURITANIA	MR
MAURITIUS	MU
MAYOTTE	YT
MEXICO	MX
MICRONESIA	FM
MOLDOVA	MD
MONGOLIA	MN
MONTSERRAT	MS
MOROCCO	MA
MOZAMBIQUE	MZ
MYANMAR	MM
NAMIBIA	NA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NETHERLANDS ANTILLES	AN
NEW CALDONIA	NC
NEW ZEALAND	NZ
NICARAGUA	NI
NIGER	NE
NIGERIA	NG
NIUE	NU
NORFOLK ISLAND	NF
NORTHERN MARIANA ISLAND	MP
NORWAY	NO
OMAN	OM
PAKISTAN	PK
PALAU	PW

PANAMA	PA
PAPAU NEW GUINEA	PG
PARAGUAY	PY
PERU	PE
PHILIPPINES	PH
PITCAIRN ISLAND	PN
POLAND	PL
PORTUGUL	PT
PUERTO RICO	PR
QATAR	QA
REUNION	RE
ROMANIA	RO
RUSSIAN FERERATION	RU
RWANDA	RW
SAMOA	WS
SAN MARINO	SM
SAN TOME AND PRICIPEL	ST
SAUDI ARABIA	SA
SENEGAL	SN
SEYCHELLES	SC
SIERRA LEONE	SL
SINGAPORE	SG
ST. HELENA	SH
ST. KITTS-NEVIS-ANGUIL LA	KN
ST. LUCIA	LC
ST. PIERRE AND MIQUELON	PM
ST. VINCENT AND THE GRENADINES	VC
SUDAN	SD
SURINAM	SR
SVALBARD & JAN MAYEN IS.	SJ

SWAZILAND	SZ
SWEDEN	SE
SWITZERLAND	CH
SYRIAN ARAB REPUBLIC	SY
TAIWAN, PROVIDENCE OF CHINA	TW
TAJIKISTAN	TJ
TANZANIA, UNITED REPUBLIC	TZ
THAILAND	TH
TOGO	TG
TOKELAU	TK
TONGA	TO
TRINIDAD AND TOBAGO	TT
TUNISIA	TN
TURKEY	TR
TURKMENISTAN	TM
TURKS & CAICOS ISLANDS	TC
TUVALU	TV
U.S. MINOR OUTLYING ISL.	UM
UGANDA	UG
UKRAINIAN SSR	UA
UNITED ARAB EMIRATES	AE
UNITED KINGDOM	GB
UNITED STATES	US
URAGUAY	UY
UZBEKISTAN	UZ
VANUATU	VU
VATICAN CITY STATE	VA
VENEZUELA	VE
VIETNAM	VN

VIRGIN ISLANDS BRITISH	VG
VIRGIN ISLANDS US	VI
WALLIS AND FUTUNA IS	WF
WESTERN SAHARA	EH
YEMEN	YE
YUGOSLAVIA	YU
ZAIRE	ZR
ZAMBIA	ZM
ZIMBABWE	ZW

ISO Country Codes

The following International Standards Organization (ISO) country codes are used when filling the order fields COUNTRY, SHIPTOCOUNTRY, and CORPCOUNTRY.

Country Name	Code
Afghanistan	4
Albania	8
Algeria	12
American Samoa	16
Andorra	20
Angola	24
Anguilla	660
Antarctica	10
Antigua and Barbuda	28
Argentina	32
Armenia	51
Aruba	533
Australia	36
Austria	40
Azerbaijan	31
Bahamas	44
Bahrain	48
Bangladesh	50
Barbados	52
Belarus	112
Belgium	56
Belize	84
Benin	204
Bermuda	60
Bhutan	64
Bolivia	68
Bosnia-Herzegovina	70
Botswana	72
Bouvet Island	74
Brazil	76
British Indian Ocean Territory	86
Brunei Darussalam	96
Bulgaria	100

Country Name	Code
Burkina Faso	854
Burundi	108
Cambodia	116
Cameroon	120
Canada	124
Cape Verde	132
Cayman Islands	136
Central African Republic	140
Chad	148
Chile	152
China	156
Christmas Island	162
Cocos (Keeling) Islands	166
Colombia	170
Comoros	174
Congo	178
Cook Islands	184
Costa Rica	188
Cote D'ivoire (formerly Ivory Coast)	384
Croatia (local name: Hrvatska)	191
Cuba	192
Cyprus	196
Czech Republic	203
Denmark	208
Djibouti	262
Dominica	212
Dominican Republic	214
East Timor	626
Ecuador	218
Egypt	818
El Salvador	222
Equatorial Guinea	226
Eritrea	232
Estonia	233
Ethiopia	231
Falkland Islands (Malvinas)	238
Faroe Islands	234

Country Name	Code
Fiji	242
Finland	246
France	250
France, Metropolitan	249
French Guiana	254
French Polynesia	258
French Southern Territories	260
Gabon	266
Gambia	270
Georgia	268
Germany	276
Ghana	288
Gibraltar	292
Greece	300
Greenland	304
Grenada	308
Guadeloupe	312
Guam	316
Guatemala	320
Guinea	324
Guinea-Bissau	624
Guyana	328
Haiti	332
Heard and McDonald Islands	334
Honduras	340
Hong Kong	344
Hungary	348
Iceland	352
India	356
Indonesia	360
Iran (Islamic Republic of)	364
Iraq	368
Ireland	372
Israel	376
Italy	380
Jamaica	388
Japan	392
Jordan	400
Kazakhstan	398

Country Name	Code
Kenya	404
Kiribati	296
Korea, Democratic People's Republic of (formerly North Korea)	408
Korea, Republic of (formerly South Korea)	410
Kuwait	414
Kyrgyzstan	417
Lao People's Democratic Republic (formerly Laos)	418
Latvia	428
Lebanon	422
Lesotho	426
Liberia	430
Libyan Arab Jamahiriya (formerly Libya)	434
Liechtenstein	438
Lithuania	440
Luxembourg	442
Macau	446
Macedonia, the Former Yugoslav Republic of	807
Madagascar	450
Malawi	454
Malaysia	458
Maldives	462
Mali	466
Malta	470
Marshall Islands	584
Martinique	474
Mauritania	478
Mauritius	480
Mayotte	175
Mexico	484
Micronesia, Federated States of	583
Moldova, Republic of	498
Monaco	492
Mongolia	496

Country Name	Code
Montserrat	500
Morocco	504
Mozambique	508
Myanmar (formerly Burma)	104
Namibia	516
Nauru	520
Nepal	524
Netherlands	528
Netherlands Antilles	530
New Caledonia	540
New Zealand	554
Nicaragua	558
Niger	562
Nigeria	566
Niue	570
Norfolk Island	574
Northern Mariana Islands	580
Norway	578
Oman	512
Pakistan	586
Palau	585
Panama	591
Papua New Guinea	598
Paraguay	600
Peru	604
Philippines	608
Pitcairn	612
Poland	616
Portugal	620
Puerto Rico	630
Qatar	634
Reunion	638
Romania	642
Russian Federation	643
Rwanda	646
Saint Kitts and Nevis	659
Saint Lucia	662
Saint Vincent and the Grenadines	670

Country Name	Code
Samoa	882
San Marino	674
Sao Tome and Principe	678
Saudi Arabia	682
Senegal	686
Seychelles	690
Sierra Leona	694
Singapore	702
Slovakia (Slovak Republic)	703
Slovenia	705
Solomon Islands	90
Somalia	706
South Africa	710
South Georgia and the South Sandwich Islands	239
Spain	724
Sri Lanka	144
St. Helena	654
St. Pierre and Miquelon	666
Sudan	736
Suriname	740
Svalbard and Jan Mayen Islands	744
Swaziland	748
Sweden	752
Switzerland	756
Syrian Arab Republic (formerly Syria)	760
Taiwan, Province of China	158
Tajikistan	762
Tanzania, United Republic of	834
Thailand	764
Togo	768
Tokelau	772
Tonga	776
Trinidad and Tobago	780
Tunisia	788
Turkey	792
Turkmenistan	795
Turks and Caicos Islands	796

Country Name	Code
Tuvalu	798
Uganda	800
Ukraine	804
United Arab Emirates	784
United Kingdom	826
United States	840
United States Minor Outlying Islands	581
Uruguay	858
Uzbekistan	860
Vanuatu	548
Vatican City State	336
Venezuela	862
Viet Nam	704
Virgin Islands (British)	92
Virgin Islands (U.S.)	850
Wallis and Futuna Islands	876
Western Sahara	732
Western Samoa	882
Yemen	887
Yugoslavia	891
Zaire	180
Zambia	894
Zimbabwe	716

Units of Measure

Acre (4840 yd ²)	ACR	Cubic foot	FTQ
Alcoholic strength by mass	ASM	Cubic inch	INQ
Alcoholic strength by volume	ASV	Cubic metre per hour*	MQH
Ampere*	AMP	Cubic metre per second*	MQS
Ampere=hour (3,6 kC)*	AMH	Cubic metre*	MTQ
Are (100 m ²)	ARE	Cubic millimetre*	MMQ
Bar*	BAR	Cubic yard	YDQ
Barrel (petroleum) (158,987 dm ³)	BLL	Curie	CUR
Becquerel*	BQL	Day*	DAY
Billion EUR	BIL	Decade (ten years)	DEC
Billion US	MLD	Decare	DAA
Board foot	BFT	Decilitre*	DLT
Brake horse power (245,7 watts)	BHP	Decimetre*	DMT
British thermal unit (1,055 kilojoules)	BTU	Decitonne*	DTN
Bushel (35,2391 dm ³)	BUA	Degree Celsius	CEL
Bushel (36,36874 dm ³)	BUI	Degree Fahrenheit	FAH
Candela*	CDL	Degree Kelvin: Kelvin	
Carrying capacity in metric tonnes	CCT	Displacement tonnage	DPT
Cental GB (45,359237 kg)	CNT	Dozen	DZN
Center, metric (100 kg) (syn.: Hectokilogram)	DTN	Dozen packs	DZP
Centigram*	CGM	Dozen pairs	DZR
Centilitre*	CLT	Dozen pieces	DCP
Centimetre*	CMT	Dozen rolls	DRL
Cord (3,63 m ³)	WCD	Drachm GB (3,887935 g)	DRM
Coulomb per kilogram*	CKG	Dram GB (1,771745 g)	DRI
Coulomb*	COU	Dram US (3,887935 g)	DRA
Cubic centimetre*	CMQ	Dry Barrel (115,627 dm ³)	BLD
Cubic decimetre*	DMQ	Dry gallon (4,404884 dm ³)	GLD
		Dry pint (0,55061 dm ³)	PTD
		Dry quart (1,101221 dm ³)	QTD
		Farad*	FAR
		Fluid ounce (28,413 cm ³)	OZI
		Fluid ounce (29,5735 cm ³)	OZA

Foot (0,3048 m)	FOT
Gallon (4,546092 dm3)	GLI
Gigabecquerel*	GBQ
Gigawatt-hour (1 million kW/h)*	GWH
Gill (0,142065 dm3)	GII
Gill (11,8294 cm3)	GIA
Grain GB, US (64,798910 mg)	GRN
Gram of fissile isotopes	GFI
Gram*	GRM
Great gross (12 gross)	GGR
Gross	GRO
Gross (register) ton	GRT
Half year (six months)	SAN
Hectare	HAR
Hectobar*	HBA
Hectogram*	HGM
Hectokilogram*	DTH
Hectolitre of pure alcohol	HPA
Hectolitre*	HLT
Hectometre*	HMT
Hertz*	HTZ
Hour*	HUR
Hundred	CEN
Hundred boxes	BHX
Hundred international units	HIU
Hundred leaves	CLF
Hundred packs	CNP
Hundredweight US (45,3592 kg)	CWA
Inch (25,4 mm)	INH
Joule*	JOU
Kelvin*	KEL
Kilobar*	KBA
Kilogram of caustic potash	KPH

Kilogram of caustic soda	KSH
Kilogram of named substance	KNS
Kilogram of nitrogen	KNI
Kilogram of phosphonic anhydride	KPP
Kilogram of phosphorus pentoxide	KPP
Kilogram of potassium hydroxide	KPH
Kilogram of potassium oxide	KPO
Kilogram of sodium hydroxide	KSH
Kilogram of substance 90 percent dry	KSD
Kilogram per cubic meter*	KMQ
Kilogram per second*	KGS
Kilogram*	KGM
Kilohertz*	KHZ
Kilojoule*	KJO
Kilometre per hour*	KMH
Kilometre*	KMT
Kilopascal*	KPA
Kilogram of uranium	KUR
Kilotonne*	KTN
Kilovar	KVR
Kilovolt*	KVT
Kilovolt-ampere*	KVA
Kilowatt*	KWT
Kilowatt-hour*	KWH
Knot (1 nautical mile per hour)	KNT
Leaf	LEF
Liquid gallon (3,78541 dm3)	GLL
Liquid pint (0,473176 dm3)	PTL

Liquid quart (0,946353 dm3)	QTL
Litre (1 dm3)*	LTR
Litre of pure alcohol	LPA
Long ton GB, US (1,0160469 t)	LTN
(long) hundredweight GB (50,802345 kg)	CWI
Lumen*	LUM
Lux	LUX
Megahertz*	MHZ
Megalitre*	MAL
Megametre*	MAM
Megapascal*	MPA
Megavolt-ampere (1000 KVA)*	MVA
Megawatt*	MAW
Megawatt-hour (100 kW/h)*	MWH
Metre per second squared*	MSK
Metre per second*	MTS
Metre*	MTR
Metric carat (200 mg=2,10-4 kg)	CTM
Metric ton (1000 kg)	TNE
Milliard	MLD
Millibar*	MBR
Millicurie	MCU
Milligram*	MGM
Millilitre*	MLT
Millimetre*	MMT
Million	MIO
Million cubic metres*	HMQ
Million international units	MIU
Minute*	MIN
Month	MON

Nautical mile (1852 m)	NMI
Net (register) ton	NTT
Newton*	NEW
Number	NMB
Number of articles	NAR
Number of bobbons	NBB
Number of cells*	NCL
Number of international units	NIU
Number of packs	NMP
Number of pairs	NMR
Number of parcels	NPL
Number of parts	NPT
Number of rolls	NRL
Ohm*	OHM
Ounce GB, US (28,349523 g)	ONZ
Ounce GB, US (31,103448 g) (syn: Troy ounce)	APZ
Pascal*	PAL
Pennyweight GB, US (1555174 g)	DWT
Piece	PCE
Pint (0,568262 dm3)	PTI
Pound GB, US (0,45359237 kg)	LBR
Proof gallon	PGL
Quart (1,136523 dm3)	QTI
Quarter (of a year)	QAN
Quarter, GB (12,700586 kg)	QTR
Quintal, metric (100 kg)	DTN
Revolution per minute*	RPM
Revolution per second*	RPS
Score	SCO
scruple, GB (1,2955982 g)	SCR

Second*	SEC
Set	SET
Shipping ton	SHT
Short standard (7200 matches)	SST
Short ton GB, US (0,90718474 t)	STN
Siemens*	SIE
Square centimetre*	CMK
Square decimetre*	DMK
Square foot	FTK
Square inch	INK
Square kilometre*	KMK
Square metre*	MTK
Square mile	MIK
Square millimetre*	MMK
Square yard	YDK
Standard	WSD
standard atmosphere (101325 Pa)	ATM
(statue) mile (1609,344 m)	SMI
Stone GB (6,350293 kg)	STI
Technical atmosphere (98066,5 Pa)	ATT
Ten days	DAD
Ten pairs	TPR
Thousand	MIL
Thousand ampere-hour*	TAH

Thousand board feet (2,36 m3)	MBF
Thousand cubic metres per day*	TQD
Thousand standard brick equivalent	MBE
Ton of steam per hour	TSH
Tonne (1000 kg)*	TNE
Tonne of substance 90 percent dry	TSD
Trillion EUR	TRL
Trillion US	BIL
Troy ounce	APZ
Troy pound, US (373,242 g)	LBT
Volt*	VLT
Watt*	WTT
Watt-hour*	WHR
Weber	WEB
Week	WEE
Yard (0,9144 m)	YRD
Year	ANN

FDMS South Currency Codes and Decimal Positions

Currency Name	Currency Code	Decimal Positions
Argentine Peso	32	2
Australian Dollar	36	2
Austrian Schilling	40	2

Belgian Franc	56	0
Canadian Dollar	124	2
Chilean Peso	152	2
Czech Koruna	203	2
Danish Krone	208	2
Dominican Peso	214	2
Markka	246	2
French Franc	250	2
Deutsche Mark	280	2
Drachma	300	0
Hong Kong Dollar	344	2
Indian Rupee	356	2
Irish Punt	372	2
Shekel	376	2
Italian Lira	380	0
Yen	392	0
Won	410	0
Luxembourg Franc	442	0
Mexican Duevo Peso	484	2
Netherlands Guilder	528	2
New Zealand Dollar	554	2
Norwegian Frone	578	2
Philippine Peso	608	2
Portuguese Escudo	620	0
Rand	710	2
Spanish Peseta	724	0
Swedish Krona	752	2

Appendix B Country Codes, Units of Measure, and Currency Codes

Swiss Franc	756	2
Thailand Baht	764	2
Pound Sterling	826	2
Russian Ruble	810	2
U.S Dollar	840	2
Bolivar	862	2
New Taiwan Dollar	901	2
Euro Dollar	978	2
Polish New Zloty	985	2
Brazilian Real	986	2

VeriSign Reporting Parameters

The parameters listed here can be passed for reporting purposes. For example, VeriSign Manager’s *Shipping and Billing* report makes use of these parameters. Some of the following parameters may also have other purposes. The *STREET* and *ZIP* parameters, for instance, are also used for AVS.

Note For regular credit card transactions, reporting parameters are normally not passed to the processor. See Appendix A “Processors” for more specific information.

Table C-1 VeriSign reporting parameters

Field	Description	Required	Type	Max Length
City	Cardholder’s billing city	No	Alpha	20
Comment1	User-defined field for reporting and auditing purposes (VeriSign field only)	No	Alpha-numeric	128
Comment2	User-defined field for reporting and auditing purposes (Verisign field only)	No	Alpha-numeric	128
CompanyName	Cardholder’s company	No	Alpha-numeric	30
Country	Cardholder’s billing country code	No	Alpha-numeric	3
CUSTCODE	Customer code	No	Alpha-numeric	30
DUTYAMT	Duty amount	No	Alpha-numeric	10

Table C-1 VeriSign reporting parameters (Continued)

Field	Description	Required	Type	Max Length
Email	Cardholder's e-mail address	No	Alpha-numeric	64
FirstName	Cardholder's first name	No	Alpha	15
FREIGHTAMT	Freight amount	No	Currency	10
LastName	Cardholder's last name	No	Alpha	15
Name	Cardholder's name	No	Alpha-numeric	15
PONUM	Purchase Order Number	No	Alpha-numeric	15
ShipToCity	Shipping city	No	Alpha-numeric	30
ShipToFirstName	First name in the shipping address	No	Alpha-numeric	30
ShipToLastName	Last name in the shipping address	No	Alpha-numeric	30
ShipToState	Shipping state. US = 2-letter state code. Outside US, use full name.	No	Alpha-numeric	10
ShipToStreet	Shipping street address	No	Alpha-numeric	30
ShipToZip	Shipping Zip code	No	Alpha-numeric	9
State	Cardholder's billing state code	No	Alpha-numeric	2
Street	Cardholder's billing street address (used for AVS and reporting)	No	Alpha-numeric	30
TAXAMT	Tax amount	No	Currency	10
Zip	Cardholder's billing zip code (used for AVS and reporting). Can be 5 to 9 digits; do not include spaces or non-numeric characters.	No	Numeric	9

XMLPay

About XMLPay

XMLPay specifies an XML syntax for payment requests and associated responses in a payment-processing network. Instead of using name/value pairs, Payflow Pro allows for the use of XML documents via XMLPay.

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

Using the data type definitions specified by XMLPay, such a user creates a client payment request and dispatches it in the same fashion as using name/value pairs to an associated XMLPay-compliant server component. Responses are also formatted in XML and convey the results of the payment requests to the client.

XMLPay 1.0 Core Specification

VeriSign's *XMLPay 1.0 Core Specification* defines an XML syntax for payment transaction requests, responses, and receipts in a payment processing network.

You may obtain a copy of this document from the Downloads page of VeriSign Manager (<https://manager.verisign.com>).

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

Frequently Asked Questions

- ◆ **How do I download the VeriSign SDK?**

Log in to VeriSign Manager and click **Downloads**. All VeriSign SDKs are listed by server platform and operating system. All SDKs are contained in downloadable WinZip files. You can download WinZip at <http://www.winzip.com>.

- ◆ **Do I need the VeriSign SDK if I already have a shopping cart?**

Refer to your shopping cart documentation to verify its compatibility with VeriSign. Your shopping cart documentation should specify if it is pre-integrated or requires a VeriSign SDK plug-in. Shopping cart SDKs are available on VeriSign's software downloads page.

- ◆ **How do I know my transactions are connecting to VeriSign?**

We send your server a 12-character transaction ID (for example, VX0198765432) for every transaction submitted to our servers. This transaction ID can also be referenced through VeriSign Manager Reports.

- ◆ **How do I process test transactions?**

Once you have registered with VeriSign and have completed the integration/configuration of your storefront use the following information to begin testing transactions:

HostAddress: *test-payflow.verisign.com*

HostPort: *443*

PARTNER: *Your partner ID or VeriSign*

VENDOR: *Your case-sensitive login*

USER: *Your case-sensitive login*

PWD: *Your case-sensitive password*

♦ **How do I process live transactions?**

Once you have successfully processed test transactions, use the following information to reconfigure your storefront:

HostAddress: *payflow.verisign.com*

HostPort: *443*

PARTNER: *Your partner ID or VeriSign*

VENDOR: *Your case-sensitive login*

USER: *Your case-sensitive login*

PWD: *Your case-sensitive password*

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