

Payment Tokenization

Using the Simple Order API for CyberSource Essentials

April 2017

CyberSource[®]
the power of payment

CyberSource Contact Information

For technical support questions, go to the Home page in the Business Center to see the contact information appropriate for your account.

Visit the Business Center, your central location for managing your online payment transactions, at <https://businesscenter.cybersource.com>.

For general information about our company, products, and services, go to <http://www.cybersource.com>.

For sales questions about any CyberSource Service, email sales@cybersource.com or call 650-432-7350 or 888-330-2300 (toll free in the United States).

Copyright

© 2017 CyberSource Corporation. All rights reserved. CyberSource Corporation ("CyberSource") furnishes this document and the software described in this document under the applicable agreement between the reader of this document ("You") and CyberSource ("Agreement"). You may use this document and/or software only in accordance with the terms of the Agreement. Except as expressly set forth in the Agreement, the information contained in this document is subject to change without notice and therefore should not be interpreted in any way as a guarantee or warranty by CyberSource. CyberSource assumes no responsibility or liability for any errors that may appear in this document. The copyrighted software that accompanies this document is licensed to You for use only in strict accordance with the Agreement. You should read the Agreement carefully before using the software. Except as permitted by the Agreement, You may not reproduce any part of this document, store this document in a retrieval system, or transmit this document, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written consent of CyberSource.

Restricted Rights Legends

For Government or defense agencies. Use, duplication, or disclosure by the Government or defense agencies is subject to restrictions as set forth the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 and in similar clauses in the FAR and NASA FAR Supplement.

For civilian agencies. Use, reproduction, or disclosure is subject to restrictions set forth in subparagraphs (a) through (d) of the Commercial Computer Software Restricted Rights clause at 52.227-19 and the limitations set forth in CyberSource Corporation's standard commercial agreement for this software. Unpublished rights reserved under the copyright laws of the United States.

Trademarks

Authorize.Net, eCheck.Net, and The Power of Payment are registered trademarks of CyberSource Corporation.

CyberSource, CyberSource Payment Manager, CyberSource Risk Manager, CyberSource Decision Manager, and CyberSource Connect are trademarks and/or service marks of CyberSource Corporation.

All other brands and product names are trademarks or registered trademarks of their respective owners.

Contents

Recent Revisions to This Document 6

About This Guide 7

Audience and Purpose 7

Conventions 7

 Note, Important, and Warning Statements 7

 Text and Command Conventions 8

Related Documents 8

Customer Support 9

Chapter 1 Introduction 10

Terminology 10

 Payment Tokenization 10

 Profile ID 10

 On-Demand Customer Profile 11

 Secure Acceptance 11

 Payment Token 11

Supported Processors and Payment Methods 12

Types of Authorizations 14

Authorization Consents 15

 Authorization for Electronic Checks 15

Reporting 15

 Subscription Detail Report 15

Transaction Endpoints 16

 Test Card Numbers 16

Chapter 2 Requesting Payment Tokenization Services 17

Relaxed Requirements for Address Data and Expiration Date 17

Validating a Customer Profile 18

 Charging a Setup Fee 18

 Automatically Preauthorizing an Account 18

Manually Preauthorizing an Account	20
Creating a Customer Profile	21
Credit Card without a Setup Fee	21
Credit Card with a Setup Fee	22
eCheck	23
Updating a Customer Profile	24
Updating Card Account Number	24
Removing Card Expiration Dates	25
Updating an eCheck Account Number	26
Changing the Payment Method of a Customer Profile	26
Requesting an On-Demand Transaction	27
Converting a Transaction to a Customer Profile	28
Retrieving a Customer Profile	29
Deleting a Customer Profile	30

Chapter 3	Additional Features	31
	Optional Data Storage	31
	Visa Bill Payment Program	32
	Customer Profile Sharing	32
	Account Updater	33

Appendix A	API Fields	34
	Data Type Definitions	34
	Request Fields	35
	Reply Fields	47
	Reason Codes	56
	AVS and CVN Codes	59
	International AVS Codes	59
	U.S. Domestic AVS Codes	59
	CVN Codes	61

Appendix B	Examples	62
	Name-Value Pair Examples	62
	Creating a Customer Profile without a Setup Fee	62
	Creating a Customer Profile with a 5.00 Setup Fee	63
	Updating a Customer Profile	64
	Updating a Card Account Number	64
	Removing Card Expiration Dates	64
	Updating an eCheck Account Number	65

Retrieving a Customer Profile	65
Deleting a Customer Profile	66
XML Examples	67
Creating a Customer Profile without a Setup Fee	67
Creating a Customer Profile with a 5.00 Setup Fee	68
Updating a Customer Profile	70
Updating a Card Account Number	70
Removing Card Expiration Dates	71
Updating an eCheck Account Number	71
Retrieving a Customer Profile	72
Deleting a Customer Profile	73

Recent Revisions to This Document

Release	Changes
April 2017	<p>Added the “Updating an eCheck Account Number” section. See page 26.</p> <p>Added the “Updating an eCheck Account Number” example. See page 65.</p>
December 2016	<p>Added the invoiceHeader_merchantDescriptorAlternate field. See page 42.</p>
April 2016	<p>Updated the “Creating a Customer Profile without a Setup Fee” example. See page 67.</p>
March 2016	<ul style="list-style-type: none"> ■ Added Comercio Latino as a supported processor. See page 12. ■ Updated the “Removing Card Expiration Dates” section. See page 25. ■ Updated the “Removing Card Expiration Dates” examples. See page 64.
January 2016	<ul style="list-style-type: none"> ■ Added the “Relaxed Requirements for Address Data and Expiration Date” section. See page 17. ■ Added the “Removing Card Expiration Dates” section. See page 25. ■ Added the “Removing Card Expiration Dates” example. See page 64.
September 2015	<p>Added the “Transaction Endpoints” section. See page 16.</p>

About This Guide

Audience and Purpose

This guide is written for merchants who want to create customer payment profiles and eliminate payment data from their network to ensure that customers' sensitive personal information is not compromised during a security breach. A customer's sensitive information is replaced with a unique identifier, known as a *profile ID*, which you store on your network.

The purpose of this guide is to help you create, update, retrieve, and delete customer profiles. It also describes how to process an on-demand transaction using a customer profile.

Conventions

Note, Important, and Warning Statements



Note

A *Note* contains helpful suggestions or references to material not contained in the document.



Important

An *Important* statement contains information essential to successfully completing a task or learning a concept.



Warning

A *Warning* contains information or instructions, which, if not heeded, can result in a security risk, irreversible loss of data, or significant cost in time or revenue or both.

Text and Command Conventions

Convention	Usage
bold	<ul style="list-style-type: none"> Items that you are instructed to act upon; for example: Click Save.

Related Documents

- *Account Updater User Guide* ([PDF](#) | [HTML](#))—describes how to automatically incorporate changes made to a customer's payment card data.
- *Business Center User Guide* ([PDF](#) | [HTML](#))—describes the features and options available within the Business Center.
- *Batch Submission User Guide* ([PDF](#) | [HTML](#))—describes how to send a batch file of order requests to CyberSource.
- *Credit Card Services User Guide* ([PDF](#) | [HTML](#))—describes how to integrate credit card processing into your order management system.
- *Electronic Check Services User Guide* ([PDF](#) | [HTML](#))—describes how to integrate eCheck processing into your order management system.
- *Getting Started with CyberSource Essentials* ([PDF](#) | [HTML](#))—describes how to get started using the Simple Order API.
- *Recurring Billing Using the Simple Order API for CyberSource Essentials* ([PDF](#) | [HTML](#))—describes how to create customer subscriptions and perform recurring and installment payments.
- *Reporting User Guide* ([PDF](#) | [HTML](#))—describes how to view and configure Business Center reports.
- *Secure Acceptance Web/Mobile Configuration Guide* ([PDF](#) | [HTML](#))—describes how to create a Secure Acceptance profile and integrate seamlessly with Secure Acceptance Web/Mobile.
- *Secure Acceptance Silent Order POST Development Guide* ([PDF](#) | [HTML](#))—describes how to create a Secure Acceptance profile and integrate seamlessly with Secure Acceptance Silent Order POST.

Refer to the Support Center for complete CyberSource technical documentation:

http://www.cybersource.com/support_center/support_documentation

Customer Support

For support information about any CyberSource service, visit the Support Center:

<http://www.cybersource.com/support>

Introduction

Terminology

Payment Tokenization

Tokenization is the process of replacing sensitive card information and billing information with a unique identifier that cannot be reverse-engineered. The unique identifier is called a *profile ID*, also known as a *payment token* (see [page 11](#)) which you store on your server. Tokenization protects sensitive cardholder information in order to comply with industry standards and government regulations and can prevent the theft of card information in storage.

The payment tokenization solution is compatible with the Visa and MasterCard Account Updater service. All payment information stored with CyberSource is automatically updated by participating banks, thereby reducing payment failures. See the *Account Updater User Guide* ([PDF](#) | [HTML](#)) for more information.

**Important**

CyberSource payment tokenization and payment network tokenization are different features:

- The CyberSource token (the profile ID) is created by CyberSource and can be used only with CyberSource payment services.
 - The payment network token is created by a token service provider and can be used throughout the financial network.
-

Profile ID

**Important**

Contact CyberSource Customer Support to have your account configured for a 16-digit profile ID, or to update from a 22-digit profile ID to a 16-digit profile ID.

The *profile ID*, also known as the *payment token*, identifies the card and retrieves the associated billing, shipping, and card information of a customer profile. No sensitive card information is stored on your servers, reducing your PCI DSS obligations.

There are three types of profile IDs:

- 22 digit—the default profile ID.
- 16 digit—displays the last 4 digits of the primary account number (PAN) and passes Luhn mod-10 checks. This profile ID is for card customer profiles.
- 16 digit—displays 99 as the two leading digits and passes Luhn mod-10 checks. If your business rules prohibit using 99 as the leading digits, you must modify your system to accept the other 16-digit profile ID.

On-Demand Customer Profile



Important

For information about recurring and installment customer profiles, see *Recurring Billing Using the Simple Order API for CyberSource Essentials* ([PDF](#) | [HTML](#)).

An on-demand customer profile contains specific information about a customer that you store in the CyberSource database for future billing. After you create a customer profile, the following tasks are available to you:

- Update customer profile information (see [page 24](#)).
- Process an on-demand transaction using the customer profile details. You can process an authorization, credit, eCheck credit, and an eCheck debit (see [page 27](#)).
- Retrieve customer profile information (see [page 29](#)).
- Delete a customer profile (see [page 30](#)).
- Share customer profiles (see [page 32](#)).

Secure Acceptance

Payment Token

If you are using Secure Acceptance to process transactions, the payment token is the customer profile ID (see [page 10](#)). The payment token identifies the card and retrieves the associated billing, shipping, and card information. For Secure Acceptance documentation, see "[Related Documents](#)," [page 8](#).

Supported Processors and Payment Methods

Each customer profile has an associated payment method: card, eCheck, or other.



Note

The *other* payment method enables you to store data securely in a customer profile. This payment method is useful if you do not intend to use the customer profile for payment transactions. You must use the CyberSource API services to submit a customer profile request with the *other* payment method. See "[Optional Data Storage](#)," page 31.



Important

All the processors listed in the table below support automatic preauthorizations and manual preauthorizations. Unless stated otherwise, each processor in the table below supports 1.00 preauthorizations using all credit card types.

Table 1 Supported Processors and Payment Methods

Processor	Payment Method
Chase Paymentech Solutions	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, and Diners Club cards. ■ Electronic check. ■ Visa Bill Payments—see page 32.
Comercio Latino	Credit card—supports 1.00 preauthorizations using Visa, MasterCard, American Express, Discover, Diners Club, JCB, Hipercard, Aura, and Elo cards.
CyberSource ACH Service	Electronic check.
FDC Compass	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, and Discover cards. ■ Visa Bill Payments—see page 32.
FDC Nashville Global	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, Diners Club, and JCB (US Domestic) cards. ■ Visa Bill Payments—see page 32.

Table 1 Supported Processors and Payment Methods (Continued)

Processor	Payment Method
FDMS Nashville	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, Diners Club, and JCB (US Domestic) cards. ■ Visa Bill Payments—see page 32.
FDMS South	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, and JCB (US Domestic) cards.
GPN	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, Diners Club, and JCB cards. ■ ■ Visa Bill Payments—see page 32.
Moneris	Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards.
Omnipay Direct	Credit card—supports 0.00 preauthorizations using Visa, MasterCard, Maestro (International), and Maestro (UK Domestic).
RBS WorldPay Atlanta	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards. ■ Electronic check.
TeleCheck	Electronic check—supports 1.00 preauthorizations.
TSYS Acquiring Solutions	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and MasterCard cards and 1.00 preauthorizations using American Express, Discover, Diners Club, and JCB cards. ■ Debit card and pre-paid card—supports partial authorizations for Visa, MasterCard, American Express, Discover, Diners Club, and JCB cards. ■ Visa Bill Payments—see page 32.

Types of Authorizations

Table 2 Types of Authorizations

Authorization	Description
Automatic Preauthorization	<p>Automatically preauthorize a credit card when you create a customer profile, or automatically preauthorize a bank account when you create a customer profile with new eCheck information. See page 18.</p> <p>Depending on the payment method and if your account is configured for Smart Authorization, CyberSource automatically runs several fraud checks during a preauthorization: AVS and CVN checks for cards, and Smart Authorization for cards and eChecks.</p> <p>Note Partial authorizations for prepaid cards and debit cards cannot be performed for automatic preauthorizations.</p> <p>Important Contact your merchant account provider to determine whether you will be charged a fee for a preauthorization.</p>
Manual Preauthorization	<p>Manually preauthorize a customer's account for a nominal or zero amount when you create a customer profile. This feature is available only with the CyberSource API. See page 20.</p> <p>Important Contact your merchant account provider to determine whether you will be charged a fee for a preauthorization.</p>
Automatic Preauthorization Reversal	<p>If your processor supports full authorization reversal, you can contact CyberSource Customer Support to automatically reverse preauthorizations when you create a customer profile. CyberSource does not charge you for reversing automatic preauthorizations. If you cannot create a customer profile for any reason, or if the preauthorization amount is 0.00, CyberSource does not reverse the automatic preauthorization.</p> <p>Important TSYS Acquiring Solutions, American Express Brighton, and HSBC do not support automatic preauthorization reversals.</p>
Partial Authorization	<p>When the balance on a debit card or prepaid card is lower than the requested authorization amount, the issuing bank can approve a partial amount.</p>

Authorization Consents

Authorization for Electronic Checks

To support customer profiles that use electronic checks, you must display a separate consent agreement accepted by the customer before you create the customer profile. The authorization statement must:

- Be readily identifiable as an authorization.
- Clearly and conspicuously state its terms including the transaction amount and the effective date of the transfer.
- Include the routing number and bank account number to be debited.
- Specify the frequency of the debits and the period of time during which the customer's payment authorization is granted.
- Include instructions for revoking the authorization.

Reporting

Subscription Detail Report

The Subscription Detail report provides detailed information about on-demand customer profiles and their transactions.

The Subscription Detail Report is available in XML and CSV formats. You can view the report on the Business Center, or you can use a client API to programmatically download the report.

For a detailed description of the Subscription Detail Report, and for details about downloading the report, see the *Reporting Developer Guide* ([PDF](#) | [HTML](#)).

Transaction Endpoints



Important

Contact CyberSource Customer Support to configure your account for Payment Tokenization.

When you use the , the payment method you are testing determines whether you use test card numbers (see [page 16](#)) or test account numbers. Search for and view your test subscriptions in the test version of the Business Center:

<https://ebctest.cybersource.com>

When you use the , the payment method you are testing determines whether you use real card numbers or real account numbers. Create customer subscriptions that use small amounts, such as 1.50. Search for and view your live customer subscriptions in the production version of the Business Center:

<https://businesscenter.cybersource.com>

Test Card Numbers

You may use the following test credit card numbers for transactions:

Credit Card Type	Test Account Number
Visa	4111111111111111
MasterCard	5555555555554444
American Express	378282246310005
Discover	6011111111111117
JCB	3566111111111113
Diners Club	38000000000006
Maestro International (16 digits)	6000340000009859
Maestro Domestic (16 digits)	6759180000005546

Requesting Payment Tokenization Services

Relaxed Requirements for Address Data and Expiration Date

Service:

- paySubscriptionCreateService

Processors:

- Chase Paymentech Solutions
- FDC Compass
- FDC Nashville Global
- FDMS South
- GPN

To enable relaxed requirements for address data and expiration date, contact CyberSource Customer Support to have your account configured for this feature.

Historically, this data was mandated by CyberSource. With the advent of digital payments and an increasingly global e-commerce environment, CyberSource decided to relax the requirements for address data and expiration date.

Relaxed requirements make the following fields optional:

- billTo_city
- billTo_country
- billTo_email
- billTo_firstname
- billTo_lastname
- billTo_postalCode: if you include this field in your request, you must also include **billTo_country**.
- billTo_state

- `billTo_street1`
- `card_expirationMonth`: if you include this field in your request, you must also include **`card_expirationYear`**.
- `card_expirationYear`: If you include this field in your request, you must also include **`card_expirationDate`**.

**Important**

When relaxed requirements for address data and expiration date are enabled for your CyberSource account, and your service request does not include one or more of the fields in the preceding list, you increase the risk of declined transactions and fraud depending on your location, your processor, and the cardholder's issuing bank. It is your responsibility to determine whether a field is required for the transaction you are requesting.

Validating a Customer Profile

Three validation methods are available to you to validate a card or eCheck customer profile before it is created.

Charging a Setup Fee

You can charge a setup fee only for card and eCheck payments. It is a one-time optional fee that you can charge only when you are creating a customer profile. Include the setup fee in the **`purchaseTotals_grandTotalAmount`** field. See "[Credit Card with a Setup Fee](#)," page 22.

**Important**

CyberSource recommends that you do not enable partial authorizations for setup fees. If the issuing bank approves a partial amount for the setup fee, the customer profile is not created.

Automatically Preauthorizing an Account

Automatic preauthorizations are available only for card payments and eCheck payments, and CyberSource does not charge you for this feature. Before you create a customer profile, CyberSource authorizes a small amount against the payment method you enter for the customer profile. Each payment processor supports different preauthorization amounts. See "[Payment Tokenization](#)," page 10.

When you configure your account to use automatic preauthorizations, CyberSource will automatically run several fraud checks during a preauthorization depending on the payment method for the new customer profile:

- AVS checks—credit card only.
- CVN checks—credit card only.
- Smart Authorization—credit card and electronic checks.

If your payment processor supports full authorization reversals you can contact CyberSource Customer Support to automatically reverse preauthorizations. When you create a customer profile with automatic preauthorizations and automatic preauthorization reversals enabled, the order of services is:

- 1 Credit card authorization for the preauthorization.
- 2 Profile creation—only if the authorization was successful.
- 3 Full authorization reversal—only if the authorization was successful and the preauthorization amount was not 0.00.

To enable or disable automatic preauthorizations:

- Step 1** Log in to the Business Center:
- Live Transactions: <https://ebc.cybersource.com>
 - Test Transactions: <https://ebctest.cybersource.com>
- Step 2** In the left navigation pane, choose **Payment Tokenization > Settings**.
- Step 3** Check **Perform an automatic preauthorization before creating profile**.
- Step 4** Click **Submit Changes**.
-

To disable automatic preauthorizations:

- Step 1** Request the `paySubscriptionCreateService` service. See "[Creating a Customer Profile](#)," page 21.
- Step 2** In the `paySubscriptionCreateService` request, set the `paySubscriptionCreateService_disableAutoAuth` field to `true`.
-

Manually Preauthorizing an Account

Manually preauthorizing an account is available only for card payments and eCheck payments. You can manually preauthorize a customer's account when you create a customer profile.



Important

If your processor supports full authorization reversals and if you charged more than \$0 for the preauthorization, CyberSource recommends that you subsequently request a full authorization reversal. See "[Supported Processors and Payment Methods](#)," page 12.

To manually preauthorize a card customer profile:

Step 1 Set the `paySubscriptionCreateService_run` service field to **true**. See "[Credit Card without a Setup Fee](#)," page 21.

Step 2 Include the following fields:

- `ccAuthService_run`—set to **true**.
- `purchaseTotals_grandTotalAmount`—set to **0.00** or a small amount.



Note

For all card types on FDC Nashville Global, include the following fields:

- `ccAuthService_commerceIndicator=recurring`
- `ccAuthService_firstRecurringPayment=TRUE`
- `card_cvNumber`

See *Credit Card Services Using the Simple Order API* ([PDF](#) | [HTML](#)) for detailed descriptions of the above request fields.

To manually preauthorize an eCheck customer profile:

Step 1 Set the `paySubscriptionCreateService_run` service field to **true**. See "[eCheck](#)," page 23.

Step 2 Include the following fields:

- `ecDebitService_run`—set to **true**.
- `ecDebitService_paymentMode`—set to **1**.

Creating a Customer Profile

Credit Card without a Setup Fee



You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile,"](#) page 18.

To create a customer a profile without a setup fee:

Step 1 Set the `paySubscriptionCreateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `billTo_firstName`
- `billTo_lastName`
- `billTo_city`
- `billTo_country`
- `billTo_email`
- `billTo_postalCode`
- `billTo_state`
- `billTo_street1`
- `card_accountNumber`
- `card_cardType`
- `card_expirationMonth`
- `card_expirationYear`
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `recurringSubscriptionInfo_frequency`—set to **on-demand**.

See ["API Fields,"](#) page 34, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 62 for a request and reply example.

Credit Card with a Setup Fee



You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile," page 18](#).

To create a customer a profile with a 5.00 setup fee:

- Step 1** Set the `paySubscriptionCreateService_run` service field to **true**.
- Step 2** Set the `ccAuthService_run` service field to **true**—authorizes the setup fee.
- Step 3** Set the `ccCaptureService_run` service field to **true**—captures the setup fee.
- Step 4** Include the following fields in the request:
- `purchaseTotals_grandTotalAmount`—the setup fee amount.
 - `billTo_firstName`
 - `billTo_lastName`
 - `billTo_city`
 - `billTo_country`
 - `billTo_email`
 - `billTo_postalCode`
 - `billTo_state`
 - `billTo_street1`
 - `card_accountNumber`
 - `card_cardType`
 - `card_expirationMonth`
 - `card_expirationYear`
 - `merchantID`
 - `merchantReferenceCode`
 - `purchaseTotals_currency`
 - `recurringSubscriptionInfo_frequency`—set to **on-demand**.

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

eCheck



Important

You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile," page 18.](#)

To create an eCheck customer a profile:

Step 1 Set the `paySubscriptionCreateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `subscription_paymentMethod`—set to **check**.
- `billTo_firstName`
- `billTo_lastName`
- `billTo_city`
- `billTo_country`
- `billTo_email`
- `billTo_postalCode`
- `billTo_state`
- `billTo_street1`
- `billTo_phoneNumber`—contact your payment processor representative to learn whether this field is required or optional.
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `recurringSubscriptionInfo_frequency`—set to **on-demand**.
- `billTo_dateOfBirth`
- `billTo_driversLicenseNumber`—contact your TeleCheck representative to learn whether this field is required or optional.
- `billTo_driversLicenseState`—contact your TeleCheck representative to learn whether this field is required or optional.

- `billTo_companyTaxID`—contact your TeleCheck representative to learn whether this field is required or optional.
- `check_accountNumber`
- `check_accountType`
- `check_bankTransitNumber`
- `check_secCode`—this field is required if your processor is TeleCheck.
- `check_checkNumber`—contact your payment processor representative to learn whether this field is required or optional.

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Updating a Customer Profile



Important

You cannot update the `recurringSubscriptionInfo_frequency` field. In the example below the customer's card account number is updated.



Note

If your account is configured to use a 16 digit format-preserving profile ID (see [page 10](#)) and you update the card number, you receive a new profile ID if the last four digits of the new card number are different from the previous card number. The status of the previous profile ID changes to *superseded*. You cannot update, delete, or cancel a customer profile that has a status of *superseded*.

Updating Card Account Number

To update a customer's card account number:

- Step 1** Set the `paySubscriptionUpdateService_run` service field to **true**.
- Step 2** Include the following fields in the request:
- `card_accountNumber`
 - `card_cardType`

- `card_expirationMonth`—this field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See [page 17](#).
- `card_expirationYear`—this field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See [page 17](#).
- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`

**Note**

When you update the card number for a customer profile, CyberSource recommends that you validate the customer profile. See ["Validating a Customer Profile," page 18](#).

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [page 64](#) for a request and reply example.

Removing Card Expiration Dates

To remove a customer's card expiration dates:

Step 1 Set the `paySubscriptionUpdateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `card_expirationMonth`—include an empty value in this field.
- `card_expirationYear`—include an empty value in this field.
- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`

**Note**

When you update the card number for a customer profile, CyberSource recommends that you validate the customer profile. See ["Validating a Customer Profile," page 18](#).

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Updating an eCheck Account Number



Important

You can also update the routing number by including the new value in the `check_bankTransitNumber` field as part of the update request.

To update an eCheck account number:

Step 1 Set the `paySubscriptionUpdateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `check_accountNumber`
- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Changing the Payment Method of a Customer Profile



Important

You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile," page 18](#).

You can change the payment method of a customer profile from:

- Card to eCheck.
- eCheck to card.

To change the payment method of a customer profile:

Step 1 Set the `paySubscriptionUpdateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `subscription_paymentMethod`—change to **card** (see [page 21](#)) or **check** (see [page 23](#).)
- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Requesting an On-Demand Transaction

The on-demand transactions that you can request are:

- Credit cards—authorization, sale (a bundled authorization and capture), and credit.
- Electronic checks—debit and credit.

To request an on-demand sale transaction:

Step 1 Set the `ccAuthService_run` service field to **true**.

Step 2 Set the `ccCaptureService_run` service field to **true**.

Step 3 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `purchaseTotals_grandTotalAmount`
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

To request an on-demand credit transaction:

Step 1 Set the `ccCreditService_run` service field to **true**.

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `purchaseTotals_grandTotalAmount`
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields.

Converting a Transaction to a Customer Profile



Important

Transaction information resides in the CyberSource database for 60 days after the transaction is processed.



Note

When you create a customer profile from an existing transaction, the account is already validated. You can charge a setup fee. See ["Charging a Setup Fee," page 18](#).

To convert a transaction to a customer profile:

Step 1 Set the `paySubscriptionCreateService_run` service field to **true**.

Step 2 Include the following fields in the request:

- merchantID
- merchantReferenceCode
- recurringSubscriptionInfo_frequency—set to **on-demand**.
- paySubscriptionCreateService_paymentRequestID—include the **requestID** value returned from the original transaction request.

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Retrieving a Customer Profile

To retrieve a customer profile:

Step 1 Set the **paySubscriptionRetrieveService_run** service field to **true**.

Step 2 Include the following fields in the request:

- merchantID
- merchantReferenceCode
- recurringSubscriptionInfo_subscriptionID

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Deleting a Customer Profile



Deleting a customer profile is permanent. When a profile is deleted, any profiles it superseded are also deleted.

To delete a customer profile:

Step 1 Set the `paySubscriptionDeleteService_run` service field to `true`.

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 34](#) for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 62](#) for a request and reply example.

Additional Features

Optional Data Storage

Each payment method enables you to store data securely in a customer profile. If you are using the *Other* payment method, you must use CyberSource API services to submit a customer profile request. This payment method is useful if you do not intend to use the customer profile for payment transactions.

You can include two types of data storage fields in a customer profile:

- **merchantSecureData_field1 to 4**—CyberSource encrypts this data before storing it in the database. The validation performed on these fields is a size check. Fields 1 to 3 are string (100) and the fourth field is string (2K). You can include any data in the encrypted fields.
- **merchantDefinedData_field1 to 4**—CyberSource does not encrypt these fields before storing them in the database. Legal limitations exist on the type of data that you can include in the unencrypted fields.



Merchant-defined data fields are not intended to and **MUST NOT** be used to capture personally identifying information. Accordingly, merchants are prohibited from capturing, obtaining, and/or transmitting any personally identifying information in or via the merchant-defined data fields. Personally identifying information includes, but is not limited to, card number, social security number, driver's license number, state-issued identification number, passport number, and card verification numbers (CVV, CVC2, CVV2, CID, CVN). In the event CyberSource discovers that a merchant is capturing and/or transmitting personally identifying information via the merchant-defined data fields, intentionally or not, CyberSource **WILL** immediately suspend the merchant's account, which will result in a rejection of any and all transaction requests submitted by the merchant after the point of suspension.



When you create a customer profile based on an existing transaction, the merchant-defined data fields are not transferred to the new customer profile.

Visa Bill Payment Program

This feature is a transaction indicator for specific authorization or credit requests that Visa wants to differentiate from other types of purchases and credits. Customers can use their Visa cards to pay bills, such as monthly utility bills. Visa requests that you flag the bill payments and credits so that they can be easily identified.

When you create a customer profile using a Visa card, set the **recurringsubscriptionInfo_billPayment** to **true**. This value is case sensitive.

When you process a one-time payment, set the **ccAuthService_billPayment** field to **true**. This value is case sensitive.

When you process a one-time credit, set the **ccCreditService_billPayment** field to **true**. This value is case sensitive.

For more information about the Visa Bill payment Program and the processors that support it, see *Credit Card Services Using the Simple Order API* ([PDF](#) | [HTML](#)) *Credit Card Services User Guide* ([PDF](#) | [HTML](#)).

Customer Profile Sharing



Contact CyberSource Customer Support to enable your account for profile sharing.

When you create a customer profile, your CyberSource merchant ID is associated with that profile. You can share customer profiles among merchant IDs, and you can access customer profiles that were created with other CyberSource merchant IDs.

You can:

- Create a customer subscription by converting an existing transaction that was processed with a CyberSource merchant ID other than your own.
- Retrieve customer profile information—in your request include your merchant ID and the profile ID of the customer profile (see [page 38](#)). If the customer profile is not enabled for profile sharing, CyberSource returns the reason code 150 (see [page 56](#)).
- Update customer profile information—in your request include your merchant ID and the profile ID of the customer profile (see [page 30](#)). If the customer profile is not enabled for profile sharing, CyberSource returns the reason code 150 (see [page 56](#)).

- Perform an on-demand transaction using the customer profile—in your request include your merchant ID and the profile ID of the customer profile (see [page 36](#)). If the customer profile is not enabled for profile sharing, CyberSource returns the reason code 150 (see [page 56](#)).

You cannot delete a customer profile that has a merchant ID other than your own.

Account Updater

CyberSource Account Updater is integrated with the Payment Tokenization functionality so that your customer profiles can be kept up-to-date with the latest credit card data changes. These changes can include a new expiration date, a new credit card number, or a brand change such as a change from Visa to MasterCard.

You can use the Account Updater REST API to submit a batch of profile IDs (tokens) to be processed by the Account Updater service, or CyberSource can configure your account to automatically update your customer profiles with updated credit card data. See the *Account Updater User Guide* ([PDF](#) | [HTML](#)).

API Fields

The Payment Tokenization service names in the API field tables have been shortened:

Service Name	Shortened Service Name
paySubscriptionCreateService	Create
paySubscriptionDeleteService	Delete
paySubscriptionUpdateService	Update
paySubscriptionRetrieveService	Retrieve

Data Type Definitions

For more information about these data types, see the [World Wide Web Consortium \(W3C\) XML Schema Part 2: Datatypes specification](#).

Data Type	Description
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Request Fields

Table 3 Request Fields

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
billTo_city	City of the billing address.	Create (R) ¹ Update (O)	String (50)
billTo_company	Name of the customer's company.	Create (O) Update (O)	String (60)
billTo_companyTaxID	Tax identifier for the customer's company. Important Contact your TeleCheck representative to find out whether this field is required or optional.	Create (see description) Update (see description)	String (9)
billTo_customerID	Your identifier for the customer.	Create (O) Update (O)	String (100)
billTo_dateOfBirth	Customer date of birth. Format: YYYY-MM-DD or YYYYMMDD	Create (O) Update (O)	String (10)
billTo_driversLicenseNumber	Customer's driver's license number. Important Contact your TeleCheck representative to find out whether this field is required or optional.	Create (see description) Update (see description)	String (30)
billTo_driversLicenseState	State or province in which the customer's driver's license was issued. Use the two-character ISO state and province code . Important Contact your TeleCheck representative to find out whether this field is required or optional.	Create (see description) Update (see description)	String (2)
billTo_email	Customer email address.	Create (R) ¹ Update (O)	String (255)
billTo_firstName	Customer first name.	Create (R) ¹ Update (O)	String (60)
billTo_lastName	Customer last name.	Create (R) ¹ Update (O)	String (60)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
billTo_phoneNumber	<p>Customer phone number. When creating a customer profile, the requirements depend on the payment method:</p> <ul style="list-style-type: none"> ■ Credit cards—optional. ■ Electronic checks—contact your payment processor representative to find out if this field is required or optional. 	<p>Create (see description)</p> <p>Update (see description)</p>	String (15)
billTo_postalCode	<p>Postal code for the billing address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p>	<p>Create (R)¹</p> <p>Update (O)</p>	String (10)
billTo_state	<p>State or province in the billing address. Use the two-character ISO state and province code.</p> <p>Important Required when the billing country is the U.S. or Canada; otherwise, optional.</p>	<p>Create (See description)¹</p> <p>Update (O)</p>	String (2)
billTo_street1	First line of the billing address.	<p>Create (R)¹</p> <p>Update (O)</p>	<p>Moneris: String (50)</p> <p>All other processors: String (60)</p>
billTo_street2	Second line of the billing address.	<p>Create (O)</p> <p>Update (O)</p>	<p>Moneris: String (50)</p> <p>All other processors: String (60)</p>

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
businessRules_declineAVSFlags	<p>List of AVS codes that cause the customer profile creation request to be declined for AVS reasons. Use a space to separate the codes in the list. Use this field only if you are using automatic preauthorization. See "AVS and CVN Codes," page 59.</p> <p>Important You must include the value N in the list if you want to receive declines for the AVS code N.</p>	Create (O)	String (255)
businessRules_ignoreAVSResult	<p>Indicates whether CyberSource should ignore the results of the AVS check and create the customer profile even if the credit card does not pass the AVS check. Use this field only if you are using automatic preauthorization.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ true: Ignore the results of the AVS check and create the customer profile. ■ false (default): If the AVS check fails, do not create the customer profile. <p>When this value is true, the list in the businessRules_declineAVSFlags field is ignored.</p>	Create (O)	String (5)
card_accountNumber	Card account number.	Create (R for card payments) Update (O)	String (20)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_cardType	<p>Type of card to authorize. For more information about which cards can be handled by each processor, see "Supported Processors and Payment Methods," page 12.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ 001: Visa ■ 002: MasterCard, Eurocard—European regional brand of MasterCard ■ 003: American Express ■ 004: Discover ■ 005: Diners Club ■ 006: Carte Blanche ■ 007: JCB ■ 014: EnRoute ■ 021: JAL ■ 024: Maestro (UK Domestic) ■ 031: Delta—use this value only for Global Collect. For other processors, use 001 for all Visa card types. ■ 033: Visa Electron ■ 034: Dankort ■ 036: Carte Bleu ■ 037: Carta Si ■ 042: Maestro (International) ■ 043: GE Money UK card—before setting up your system to work with GE Money UK cards, contact the CyberSource UK Support Group. ■ 050: Hipercard—supported only by the Comercio Latino processor. ■ 051: Aura—supported only by the Comercio Latino processor. ■ 054: Elo—supported only by the Comercio Latino processor. 	<p>Create (R for card payments)</p> <p>Update (O)</p>	String (3)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **. Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_cvIndicator	Indicates whether a card verification number was included in the request. Possible values: <ul style="list-style-type: none"> ■ 0 (default): CVN service not requested. This default is used if you do not include card_cvNumber in the request. ■ 1 (default): CVN service requested and supported. This default is used if you include card_cvNumber in the request. ■ 2: CVN on credit card is illegible. ■ 9: CVN was not imprinted on credit card. 	Create (O)	String with numbers only (1)
card_cvNumber	Card verification number. Include this field only if you are using automatic preauthorization and want to run the CVN check. See . Do not include this field if your processor is Global Collect.	Create (O)	String with numbers only (4)
card_expirationMonth	Expiration month. Format: MM	Create (R for card payments) Update ¹	String (2)
card_expirationYear	Expiration year. Format: YYYY FDC Nashville Global and FDMS South You can send in 2 digits or 4 digits. When you send in 2 digits, they must be the last 2 digits of the year.	Create (R for card payments) Update ¹	FDC Nashville Global and FDMS South: String (See description) All other processors: String (4)
card_issueNumber	Indicates the number of times a Maestro (UK Domestic) card has been issued to the account holder. The card might or might not have an issue number; the field is required if the card has an issue number. The number can consist of one or two digits, and the first digit might be a zero. Include exactly what is printed on the card—a value of 2 is different than a value of 02. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card.	Create (see description) Update (O)	String (5)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See . **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_startMonth	Month of the start of the Maestro (UK Domestic) card validity period. The card might or might not have a start date printed on it; the field is required if the card has a start date. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: MM Possible values: 01 to 12.	Create (see description) Update (O)	Integer (2)
card_startYear	Year of the start of the Maestro (UK Domestic) card validity period. The card might or might not have a start date printed on it; the field is required if the card has a start date. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: YYYY	Create (see description) Update (O)	Integer (4)
check_accountNumber	Checking account number.	Create (R for eCheck payments) Update (O)	String (17)
check_accountType	Checking account type. Possible values: <ul style="list-style-type: none"> ■ C: checking ■ S: savings (USD only) ■ X: corporate checking (USD only) ■ G: general ledger 	Create (R for eCheck payments) Update (O)	String (1)
check_bankTransitNumber	Bank routing number. This value is also known as the <i>transit number</i> .	Create R for eCheck payments Update (O)	String (9)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **. Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
check_secCode	<p>Important This field is required if your processor is TeleCheck.</p> <p>Code that specifies the authorization method for the transaction. Possible values:</p> <ul style="list-style-type: none"> ■ CCD: Corporate cash disbursement—charge or credit to a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. ■ PPD: Prearranged payment and deposit entry—charge or credit to a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions. ■ TEL: Telephone-initiated entry—one-time charge to a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. ■ WEB: Internet-initiated entry—charge to a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. 	Create (R) Update (O)	String (3)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See . **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
decisionManager_enabled	<p>Indicates whether to use for a customer profile.</p> <p>Use this field only if you are using and are configured to use automatic preauthorizations as described in . Also see .</p> <p>If your account is enabled for , will be used on the preauthorization that occurs before the customer profile is created. You can use this field to turn off for the preauthorization for this specific customer profile. Possible values:</p> <ul style="list-style-type: none"> ■ false: Do not use for this customer profile. ■ true (default): Use for this customer profile. <i>Decision Manager Developer Guide Using the Simple Order API</i> (PDF HTML) 	Create (O)	String (5)
ignoreCardExpiration	<p>Indicates whether to ignore a card expiration date when creating a subscription.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ false: Do not ignore the card expiration date. ■ true: Ignore the card expiration date. <p>Note If set to true, the paySubscriptionCreateService_disableAutoAuth field must also be set to true.</p>	Create (O)	String (5)
invoiceHeader_merchantDescriptorAlternate	For the description, used-by information, data type, and length, see Merchant Descriptors in .	Create Retrieve Update Delete	
item_0_unitPrice	Use this field or the purchaseTotals_grandTotalAmount field to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See and .	Create (see description) Update (O)	String (15)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See . **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
merchantDefinedData_field1 merchantDefinedData_field2 merchantDefinedData_field3 merchantDefinedData_field4	<p>Four fields that you can use to store information. These values are displayed on the Subscription Transaction Details page on the Business Center. To understand the different kinds of data storage fields see "Optional Data Storage," page 31.</p> <p>Warning Merchant-defined data fields are not intended to and MUST NOT be used to capture personally identifying information. Accordingly, merchants are prohibited from capturing, obtaining, and/or transmitting any personally identifying information in or via the merchant-defined data fields. Personally identifying information includes, but is not limited to, card number, bank account number, social security number, driver's license number, state-issued identification number, passport number, and card verification numbers (CVV, CVC2, CVV2, CID, CVN). In the event CyberSource discovers that a merchant is capturing and/or transmitting personally identifying information via the merchant-defined data fields, whether or not intentionally, CyberSource WILL immediately suspend the merchant's account, which will result in a rejection of any and all transaction requests submitted by the merchant after the point of suspension.</p> <p>Note If you are creating a customer profile based on an existing transaction, the merchant-defined data fields do not get transferred to the new customer profile.</p>	Create (O) Update (O)	String (255)
merchantID	Your CyberSource merchant ID.	Required for all services	String (30)
merchantReferenceCode	Merchant-generated order reference or tracking number.	Required for all services	

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See . **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
merchantSecureData_field1 merchantSecureData_field2 merchantSecureData_field3	Storage fields for any type of data. The only validation performed on these fields is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Data Storage," page 31 .	Create (O) Update (O)	String (100)
merchantSecureData_field4	Storage field for any type of data. The only validation performed on this field is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Data Storage," page 31 . Note The maximum number of characters allowed is 2048.	Create (O) Update (O)	String (2K)
paySubscriptionCreateService_disableAutoAuth	Indicates whether to turn off the preauthorization check when creating this customer profile, as described in "Optional Data Storage," page 31 . Use this field if your CyberSource account is configured for automatic preauthorizations but for this specific customer profile you want to override that setting. Possible values: <ul style="list-style-type: none">■ false: No, go ahead and perform the preauthorization for this customer profile.■ true: Yes, turn off the preauthorization check for this customer profile.	Create (O)	String (5)
paySubscriptionCreateService_paymentRequestID	The requestID value returned from a previous request for a credit card authorization. This value links the previous request to the current follow-on request. Important This field is required when converting an existing authorization to a customer profile.	Create (see description)	String (26)
purchaseTotals_currency	Currency used by the customer.	Create (R) Update (O)	String (5)
purchaseTotals_grandTotalAmount	Use this field or item_0_unitPrice to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See .	Create (see description) Update (O)	String (15)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See . **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
recurringSubscriptionInfo_amount	Amount of the customer profile payments. This value can be 0.	Create (R) Update (O)	String (15)
recurringSubscriptionInfo_billPayment	Flag that indicates that this is a payment for a bill or for an existing contractual loan. See "Visa Bill Payment Program," page 32 . This value is case sensitive. Possible values: <ul style="list-style-type: none"> ■ false (default): Not a bill payment or loan payment. ■ true: Bill payment or loan payment. 	Create (O) Update (O)	String (1)
recurringSubscriptionInfo_frequency	Frequency of payments for the customer profile. Value: on-demand.	Create (R)	String (20)
recurringSubscriptionInfo_subscriptionID	Value that identifies the customer profile for which the service is being requested. This value was sent to you when the customer profile was created.	Update (R) Retrieve (R)	String (26)
shipTo_city	City of the shipping address.	Create (O) Update (O)	String (50)
shipTo_country	Country code for the shipping address. Use the two-character ISO country codes .	Create (O) Update (O)	String (2)
shipTo_firstName	First name of the person receiving the product.	Create (O) Update (O)	String (60)
shipTo_lastName	Last name of the person receiving the product.	Create (O) Update (O)	String (60)
shipTo_phoneNumber	Phone number of the person receiving the product. When creating a customer profile, the requirements depend on the payment method: <ul style="list-style-type: none"> ■ Credit cards—optional. ■ Electronic checks—contact your payment processor representative to find out if this field is required or optional. 	Create (see description) Update (see description)	String (15)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **. Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 3 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
shipTo_postalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (10)
shipTo_state	<p>State or province in the shipping address. Use the two-character ISO state and province code.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (2)
shipTo_street1	<p>First line of the street address in the shipping address.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (60)
shipTo_street2	<p>Second line of the street address in the shipping address.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (60)
subscription_paymentMethod	<p>Method of payment. See "Supported Processors and Payment Methods," page 12.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ credit card (default when creating a customer profile) ■ check ■ other 	<p>Create (see description)</p> <p>Update (O)</p>	String (20)
subscription_title	<p>Name or title for the customer profile.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (60)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See **. Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Reply Fields

Table 4 Reply Fields

Field Name	Description	Returned by	Data Type & Length
ccAuthReply_amount	Amount that was authorized.	Create	String (15)
ccAuthReply_authorizationCode	Authorization code. Returned only when the processor returns this value. For encoded account numbers and zero amount authorizations, see the .	Create	String (7)
ccAuthReply_authorizationDateTime	Time of authorization.	Create	String (20)
ccAuthReply_avsCode	AVS results. See "AVS and CVN Codes," page 59.	Create	String (1)
ccAuthReply_avsCodeRaw	AVS result code sent directly from the processor. See "AVS and CVN Codes," page 59.	Create	String (1)
ccAuthReply_processorResponse	For most processors, this is the error message sent directly from the bank. Returned only when the processor returns this value. Important Do not use this value to evaluate the result of the transaction.	Create	String (10)
ccAuthReply_reasonCode	Numeric value corresponding to the result of the authorization request. See "Reason Codes," page 56.	Create	Integer (5)
ccAuthReply_reconciliationID	Reference number for the transaction. This value is not returned for all processors.	Create	String (60)
ccCaptureReply_amount	Amount that was captured.	Create	String (15)
ccCaptureReply_reasonCode	Numeric value corresponding to the result of the capture request. See "Reason Codes," page 56.	Create	Integer (5)
ccCaptureReply_reconciliationID	Reference number for the transaction. This value is not returned for all processors.	Create	String (60)
ccCaptureReply_requestDateTime	Time of capture.	Create	String (20)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
decision	Summarizes the overall results for the request. Possible values: <ul style="list-style-type: none"> ■ ACCEPT ■ ERROR ■ REJECT 	All services	String (6)
invalidField_0...N	Fields in the request that contained invalid values. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
merchantReferenceCode	Order reference or tracking number that you provided in the request.	All services	String (50)
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
paySubscriptionCreateReply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 56.	Create	Integer (5)
paySubscriptionCreateReply_subscriptionID	Identifier for the customer profile.	Create	String (26)
paySubscriptionDeleteReply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 56.	Delete	Integer (5)
paySubscriptionDeleteReply_subscriptionID	Identifier for the customer profile.	Delete	String (26)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_ merchantDefinedData Field1	Four fields for storing information. To understand the kinds of data storage fields see "Optional Data Storage," page 31.	Retrieve	String (64)
paySubscription RetrieveReply_ merchantDefinedData Field2			
paySubscription RetrieveReply_ merchantDefinedData Field3			
paySubscription RetrieveReply_ merchantDefinedData Field4			
paySubscription RetrieveReply_ merchantSecureData Field1	Data that was encrypted. CyberSource decrypts the data before returning it. To understand the different kinds of data storage fields see "Optional Data Storage," page 31.	Retrieve	String (100)
paySubscription RetrieveReply_ merchantSecureData Field2			
paySubscription RetrieveReply_ merchantSecureData Field3			
paySubscription RetrieveReply_ _postalCode	Postal code of the billing address.	Retrieve	String (10)
paySubscription RetrieveReply_approval Required	This field is not meaningful for customer profiles.	Retrieve	String (5)
paySubscription RetrieveReply_ automaticRenew	This field is not meaningful for customer profiles.	Retrieve	String (5)
paySubscription RetrieveReply_bill Payment	Indicates whether the payments for this customer profile are for the Visa Bill Payment program. Possible values: <ul style="list-style-type: none"> ■ N (default): Not a Visa Bill Payment. ■ Y: Visa Bill Payment. See "Visa Bill Payment Program," page 32.	Retrieve	String (1)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_card AccountNumber	Card account number.	Retrieve	String (20)
paySubscription RetrieveReply_card ExpirationMonth	Expiration month for the card. Format: MM	Retrieve	Integer (2)
paySubscription RetrieveReply_card ExpirationYear	Expiration year for the card. Format: YYYY	Retrieve	Integer (4)
paySubscription RetrieveReply_card IssueNumber	Issue number for the Maestro (UK Domestic) card.	Retrieve	String (5)
paySubscription RetrieveReply_card StartMonth	Start month for the Maestro (UK Domestic) card. Format: MM	Retrieve	Integer (2)
paySubscription RetrieveReply_card StartYear	Start year for the Maestro (UK Domestic) card. Format: YYYY	Retrieve	Integer (4)
paySubscription RetrieveReply_card Type	Card type.	Retrieve	String (3)
paySubscription RetrieveReply_check AccountNumber	Bank account number.	Retrieve	Numeric (17)
paySubscription RetrieveReply_check AccountType	Account type. Possible values: <ul style="list-style-type: none"> ■ C: checking ■ S: savings (USD only) ■ X: corporate checking (USD only) 	Retrieve	String (1)
paySubscription RetrieveReply_check AuthenticateID	Identification number returned when an Authenticate request is processed and returned in subsequent monetary transactions.	Retrieve	Numeric (32)
paySubscription RetrieveReply_check BankTransitNumber	Bank routing number.	Retrieve	Numeric (9)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_checkSecCode	Code that specifies the authorization method for the transaction. Possible values: <ul style="list-style-type: none"> ■ CCD: Corporate cash disbursement—A charge or credit against a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. ■ PPD: Prearranged payment and deposit entry—A charge or credit against a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions and a written standing authorization is required for recurring transactions. ■ TEL: Telephone-initiated entry—A one-time charge against a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. There is no recurring billing option for TEL. ■ WEB: Internet-initiated entry—A charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. 	Retrieve	String (3)
paySubscription RetrieveReply_city	City of the customer's address.	Retrieve	String (50)
paySubscription RetrieveReply_comments	Comments that you included for the customer profile.	Retrieve	String (255)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_ companyName	Name of the customer's company.	Retrieve	String (40)
paySubscription RetrieveReply_ companyTaxID	Company tax identifier.	Retrieve	Numeric (9)
paySubscription RetrieveReply_ country	Country code for the billing address. Use the two-character ISO codes .	Retrieve	String (2)
paySubscription RetrieveReply_ currency	Currency used by the customer.	Retrieve	String (5)
paySubscription RetrieveReply_ customerAccountID	Your identifier for the customer.	Retrieve	String (50)
paySubscription RetrieveReply_ dateOfBirth	Date of birth of the customer. Format: YYYY-MM-DD or YYYYMMDD.	Retrieve	String (10)
paySubscription RetrieveReply_ driversLicenseNumber	Driver's license number of the customer.	Retrieve	String (30)
paySubscription RetrieveReply_ driversLicenseState	State or province in which the customer's driver's license was issued.	Retrieve	String (2)
paySubscription RetrieveReply_ email	Customer's email address.	Retrieve	String (255)
paySubscription RetrieveReply_ endDate	This field is not meaningful for customer profiles.	Retrieve	String (8)
paySubscription RetrieveReply_ first Name	Customer first name.	Retrieve	String (60)
paySubscription RetrieveReply_ frequency	Frequency of payments for the customer profile. Possible value: <ul style="list-style-type: none"> ■ on-demand: No payment schedule 	Retrieve	String (20)
paySubscription RetrieveReply_ last Name	Customer last name.	Retrieve	String (60)
paySubscription RetrieveReply_ merchantReference Code	Merchant-generated order reference or tracking number.	Retrieve	String (50)
paySubscription RetrieveReply_ merchantSecureData Field4	Data that was encrypted. CyberSource decrypts the data before returning it. To understand the different kinds of data storage fields see "Optional Data Storage," page 31 .	Retrieve	String (2048)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_ merchantSecureData Field4	Data that was encrypted. CyberSource decrypts the data before returning it. See "Optional Data Storage," page 31.	Retrieve	String (2k)
paySubscription RetrieveReply_ owner MerchantID	CyberSource merchant ID that was used to create the customer profile for which the service was requested. This field is returned only if you are using profile sharing and only if you requested this service for a customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See "Customer Profile Sharing," page 32.	Retrieve	String (30)
paySubscription RetrieveReply_ phoneNumber	Customer's phone number.	Retrieve	String (20)
paySubscription RetrieveReply_ reason Code	Numeric value corresponding to the result of the service request. See "Reason Codes," page 56.	Retrieve	Integer (5)
paySubscription RetrieveReply_ recurringAmount	Payment amount for the customer profile.	Retrieve	String (15)
paySubscription RetrieveReply_ setup Amount	Amount of the setup fee.	Retrieve	String (15)
paySubscription RetrieveReply_ shipTo City	City of the shipping address.	Retrieve	String (50)
paySubscription RetrieveReply_ shipTo Company	Name of the company that is receiving the product.	Retrieve	String (60)
paySubscription RetrieveReply_ shipTo Country	Country code for the shipping address. Use the two-character ISO codes.	Retrieve	String (2)
paySubscription RetrieveReply_ shipTo FirstName	First name of the person receiving the product.	Retrieve	String (60)
paySubscription RetrieveReply_ shipTo LastName	Last name of the person receiving the product.	Retrieve	String (60)
paySubscription RetrieveReply_ shipTo PostalCode	Postal code in the shipping address.	Retrieve	String (10)

Table 4 Reply Fields (Continued)


Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_shipTo State	State or province of shipping address. Use the two-character ISO state and province codes.	Retrieve	String (2)
paySubscription RetrieveReply_shipTo Street1	First line of the shipping address.	Retrieve	String (60)
paySubscription RetrieveReply_shipTo Street2	Second line of the shipping address.	Retrieve	String (60)
paySubscription RetrieveReply_start Date	This field is not meaningful for customer profiles.	Retrieve	String (8)
paySubscription RetrieveReply_state	State or province of billing address. Use the two-character ISO state and province codes.	Retrieve	String (2)
paySubscription RetrieveReply_status	Status of the customer profile. Possible values: <ul style="list-style-type: none"> ■ Cancelled: The customer profile has been cancelled. ■ Current: The customer profile is active. ■ Superseded: The profile ID for the customer profile has been superseded with a new profile ID. 	Retrieve	String (9)
paySubscription RetrieveReply_subscriptionID	Identifier for the customer profile.	Retrieve	String (16 or 22)
paySubscription RetrieveReply_subscriptionIDNew	Identifier for the customer profile. Note This 16-digit profile ID supersedes the previous profile ID for the same customer profile.	Retrieve	String (16)
paySubscription RetrieveReply_title	Name or title for the customer profile.	Retrieve	String (60)
paySubscription UpdateReply_owner MerchantID	CyberSource merchant ID that was used to create the customer profile for which the service was requested. This field is returned only if you are using profile sharing and only if you requested this service for a customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See " Customer Profile Sharing ," page 32.	Update	String (30)
paySubscriptionUpdate Reply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 56.	Update	Integer (5)

Table 4 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscriptionUpdate Reply_subscriptionID	Identifier for the customer profile.	Update	String (16 or 22)
paySubscription UpdateReply_ subscriptionIDNew	Identifier for the customer profile. Note This 16-digit profile ID supersedes the previous profile ID for the same customer profile.	Update	String (16)
reasonCode	Numeric value corresponding to the result of the entire request. See " Reason Codes ," page 56 .	All services	Integer (5)
requestID	Identifier for the request.	All services	String (26)
requestToken	Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information, such as an account or card verification number.	All Services	String (256)

Reason Codes

The following table describes the reason codes returned by the Simple Order API for customer profiles. For a discussion of replies, decisions, and reason codes, see the information about handling replies in .

-
-  **Important** Because CyberSource can add reply fields and reason codes at any time, you must:
- Parse the reply data according to the names of the fields instead of their order in the reply. For more information on parsing reply fields, see the documentation for your client.
 - Program your error handler to use the **decision** field to determine the result if it receives a reason code that it does not recognize.
-


 **Note** If your request includes other CyberSource services such as authorization or capture, the reply will include reason codes that pertain to those services. For more information, see the documentation for those services.

Table 5 Reason Codes for the Simple Order API

Reason Code	Description
100	Successful transaction.
101	Missing required fields. Possible action: See the reply fields missingField_0...N for which fields are missing. Resend the request with the complete information.
102	Invalid data. Possible action: See the reply fields invalidField_0...N for which fields are invalid. Resend the request with the correct information.
110	Partial amount approved. Possible action: See " Supported Processors and Payment Methods ," page 12.
150	General system failure. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
151	The request was received but there was a server timeout. This error does not include timeouts between the client and the server. To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status at the Business Center. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.

Table 5 Reason Codes for the Simple Order API (Continued)

Reason Code	Description
152	The request was received, but a service did not finish running in time. To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status at the Business Center. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
200	The authorization request was approved by the issuing bank but declined by CyberSource because it did not pass the AVS check. Possible action: You can capture the authorization, but consider reviewing the order for the possibility of fraud.
201	The issuing bank has questions about the request. You will not receive an authorization code programmatically, but you can obtain one verbally by calling the processor. Call your processor to possibly receive a verbal authorization. For contact phone numbers, refer to your merchant bank information.
202	Expired card. Request a different card or other form of payment.
203	General decline of the card. No other information provided by the issuing bank. Request a different card or other form of payment.
204	Insufficient funds in the account. Request a different card or other form of payment.
205	Stolen or lost card. Refer the transaction to your customer support center for manual review.
207	Issuing bank unavailable. Wait a few minutes and resend the request.
208	Inactive card or card not authorized for card-not-present transactions. Request a different card or other form of payment.
209	American Express Card Identification Digits (CIDs) did not match. Request a different card or other form of payment.
210	The card has reached the credit limit. Request a different card or other form of payment.
211	Invalid card verification number. Request a different card or other form of payment.
220	The processor declined the request based on a general issue with the customer's account. Request a different form of payment.
221	The customer matched an entry on the processor's negative file. Review the order and contact the payment processor.

Table 5 Reason Codes for the Simple Order API (Continued)

Reason Code	Description
222	The customer's bank account is frozen. Review the order or request a different form of payment.
230	The authorization request was approved by the issuing bank but declined by CyberSource because it did not pass the CVN check. You can capture the authorization, but consider reviewing the order for the possibility of fraud.
231	Invalid account number. Request a different card or other form of payment.
232	The card type is not accepted by the payment processor. Contact your merchant bank to confirm that your account is set up to receive the card in question.
233	General decline by the processor. Request a different card or other form of payment.
234	There is a problem with your CyberSource merchant configuration. Do not resend the request. Contact Customer Support to correct the configuration problem.
236	Processor failure. Wait a few minutes and resend the request.
240	The card type sent is invalid or does not correlate with the card number. Confirm that the card type correlates with the card number specified in the request, then resend the request.
250	The request was received, but there was a timeout at the payment processor. To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status at the Business Center.

AVS and CVN Codes

An issuing bank uses the AVS code to confirm that your customer is providing the correct billing address. If the customer provides incorrect data, the transaction might be fraudulent. The international and U.S. domestic Address Verification Service (AVS) codes are the Visa standard AVS codes, except for codes 1 and 2, which are CyberSource AVS codes. The standard AVS return codes for other types of credit cards (including American Express cards) are mapped to the Visa standard codes.



Important

When you populate billing street address 1 and billing street address 2, CyberSource through VisaNet concatenates the two values. If the concatenated value exceeds 40 characters, CyberSource through VisaNet truncates the value at 40 characters before sending it to Visa and the issuing bank. Truncating this value affects AVS results and therefore might impact risk decisions and chargebacks.

International AVS Codes

These codes are returned only for Visa cards issued outside the U.S.

Table 6 International AVS Codes

Code	Response	Description
B	Partial match	Street address matches, but postal code is not verified.
C	No match	Street address and postal code do not match.
D & M	Match	Street address and postal code match.
I	No match	Address is not verified.
P	Partial match	Postal code matches, but street address is not verified.

U.S. Domestic AVS Codes

Table 7 Domestic AVS Codes

Code	Response	Description
A	Partial match	Street address matches, but 5-digit and 9-digit postal codes do not match.
B	Partial match	Street address matches, but postal code is not verified.
C	No match	Street address and postal code do not match.
D & M	Match	Street address and postal code match.
E	Invalid	AVS data is invalid, or AVS is not allowed for this card type.
F	Partial match	Card member's name does not match, but billing postal code matches. Returned only for the American Express card type.

Table 7 Domestic AVS Codes (Continued)

Code	Response	Description
G		Not supported.
H	Partial match	Card member's name does not match, but street address and postal code match. Returned only for the American Express card type.
I	No match	Address not verified.
J	Match	Card member's name, billing address, and postal code match. Shipping information verified and chargeback protection guaranteed through the Fraud Protection Program. Returned only if you are registered to use AAV+ with the American Express Phoenix processor.
K	Partial match	Card member's name matches, but billing address and billing postal code do not match. Returned only for the American Express card type.
L	Partial match	Card member's name and billing postal code match, but billing address does not match. Returned only for the American Express card type.
M	Match	Street address and postal code match.
N	No match	One of the following: <ul style="list-style-type: none"> ■ Street address and postal code do not match. ■ Card member's name, street address, and postal code do not match. Returned only for the American Express card type.
O	Partial match	Card member's name and billing address match, but billing postal code does not match. Returned only for the American Express card type.
P	Partial match	Postal code matches, but street address not verified.
Q	Match	Card member's name, billing address, and postal code match. Shipping information verified but chargeback protection not guaranteed (Standard program). Returned only if you are registered to use AAV+ with the American Express Phoenix processor.
R	System unavailable	System unavailable.
S	Not supported	U.S.-issuing bank does not support AVS.
T	Partial match	Card member's name does not match, but street address matches. Returned only for the American Express card type.
U	System unavailable	Address information unavailable for one of these reasons: <ul style="list-style-type: none"> ■ The U.S. bank does not support non-U.S. AVS. ■ The AVS in a U.S. bank is not functioning properly.
V	Match	Card member's name, billing address, and billing postal code match. Returned only for the American Express card type.
W	Partial match	Street address does not match, but 9-digit postal code matches.

Table 7 Domestic AVS Codes (Continued)

Code	Response	Description
X	Match	Street address and 9-digit postal code match.
Y	Match	Street address and 5-digit postal code match.
Z	Partial match	Street address does not match, but 5-digit postal code matches.
1	Not supported	AVS is not supported for this processor or card type.
2	Unrecognized	The processor returned an unrecognized value for the AVS response.
3	Match	Address is confirmed. Returned only for PayPal Express Checkout.
4	No match	Address is not confirmed. Returned only for PayPal Express Checkout.

CVN Codes

Table 8 CVN Codes

Code	Description
D	The transaction was considered suspicious by the issuing bank.
I	The CVN failed the processor's data validation.
M	The CVN matched.
N	The CVN did not match.
P	The CVN was not processed by the processor for an unspecified reason.
S	The CVN is on the card but was not included in the request.
U	Card verification is not supported by the issuing bank.
X	Card verification is not supported by the card association.
1	Card verification is not supported for this processor or card type.
2	An unrecognized result code was returned by the processor for the card verification response.
3	No result code was returned by the processor.

Name-Value Pair Examples

Creating a Customer Profile without a Setup Fee

Example 1 Request: Creating a Customer Profile without a Setup Fee

```
billTo_firstName=John
billTo_lastName=Doe
billTo_street1=1295 Charleston Road
billTo_city=Mountain View
billTo_state=CA
billTo_postalCode=94043
billTo_country=US
billTo_email=null@cybersource.com
purchaseTotals_currency=USD
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2018
card_cardType=001
merchantID=demoID
merchantReferenceCode=1111
recurringSubscriptionInfo_frequency=on-demand
paySubscriptionCreateService_run=true
```

Example 2 Reply: Creating a Customer Profile without a Setup Fee

```
decision=ACCEPT
merchantReferenceCode=1111
paySubscriptionCreateReply_reasonCode=100
paySubscriptionCreateReply_subscriptionID=0000562489861111
purchaseTotals_currency=USD
reasonCode=100
requestID=3790672461500176056470
```

Creating a Customer Profile with a 5.00 Setup Fee

Example 3 Request: Creating a Customer Profile with a 5.00 Setup Fee

```
billTo_firstName=John
billTo_lastName=Doe
billTo_street1=1295 Charleston Road
billTo_city=Mountain View
billTo_state=CA
billTo_postalCode=94043
billTo_country=US
billTo_email=null@cybersource.com
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2018
card_cardType=001
merchantID=demoID
merchantReferenceCode=1111
purchaseTotals_grandTotalAmount=5.00
purchaseTotals_currency=USD
recurringSubscriptionInfo_frequency=on-demand
ccAuthService_run=true
ccCaptureService_run=true
paySubscriptionCreateService_run=true
```

Example 4 Reply: Creating a Customer Profile with a 5.00 Setup Fee

```
ccAuthReply_amount=5.00
ccAuthReply_authorizationCode=888888
ccAuthReply_authorizedDateTime=2013-09-13T12:35:21Z
ccAuthReply_avsCode=X
ccAuthReply_reasonCode=100
ccAuthReply_reconciliationID=40372550MLIKQ25D
ccCaptureReply_amount=5.00
ccCaptureReply_reasonCode=100
ccCaptureReply_reconciliationID=40372550MLIKQ25D
ccCaptureReply_requestDateTime=2013-09-13T12:35:21Z
decision=ACCEPT
merchantReferenceCode=1111
paySubscriptionCreateReply_reasonCode=100
paySubscriptionCreateReply_subscriptionID=0000562549841111
purchaseTotals_currency=USD
reasonCode=100
requestID=3790757213580176056470
```

Updating a Customer Profile

Updating a Card Account Number

Example 5 Request: Updating a Card Account Number

```

merchantID=demoID
merchantReferenceCode=0001
card_accountNumber=411111111111112
card_expirationMonth=12
card_expirationYear=2018
card_cardType=001
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionUpdateService_run=true

```

Example 6 Reply: Updating a Card Account Number

```

merchantReferenceCode=0001
requestID=3790686238410176056470
decision=ACCEPT
reasonCode=100
paySubscriptionUpdateReply_ownerMerchantID=demoID
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionIDNew=0000458489191112

```

Removing Card Expiration Dates

Example 7 Request: Removing Card Expiration Dates

```

merchantID=demoID
merchantReferenceCode=0001
card_expirationMonth=0
card_expirationYear=0
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionUpdateService_run=true

```

Example 8 Reply: removing Card Expiration Dates

```

merchantReferenceCode=0001
requestID=3790686238410176056470
decision=ACCEPT
reasonCode=100
paySubscriptionUpdateReply_ownerMerchantID=demoID
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionIDNew=0000458489191112

```

Updating an eCheck Account Number



Important

You can also update the routing number by including the new value in the **check_bankTransitNumber** field as part of the update request.

Example 9 Request: Updating an eCheck Account Number

```
merchantID=demoID
merchantReferenceCode=0001
check_accountNumber=32189375
recurringSubscriptionInfo_subscriptionID=0000562489861112
paySubscriptionUpdateService_run=true
```

Example 10 Reply: Updating an eCheck Account Number

```
decision=ACCEPT
merchantReferenceCode=0001
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionIDNew=0000562489861112
reasonCode=100
requestID=3790686238410176056470
```

Retrieving a Customer Profile

Example 11 Request: Retrieving a Customer Profile

```
merchantID=demoID
merchantReferenceCode=1111
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionRetrieveService_run=true
```

Example 12 Reply: Retrieving a Customer Profile

```

merchantReferenceCode=1111
requestID=3790689247280176056442
decision=ACCEPT
reasonCode=100
paySubscriptionRetrieveReply_reasonCode=100
paySubscriptionRetrieveReply_approvalRequired=false
paySubscriptionRetrieveReply_automaticRenew=false
paySubscriptionRetrieveReply_cardAccountNumber=411111XXXXXX1111
paySubscriptionRetrieveReply_cardExpirationMonth=12
paySubscriptionRetrieveReply_cardExpirationYear=2018
paySubscriptionRetrieveReply_cardType=001
paySubscriptionRetrieveReply_city=The City
paySubscriptionRetrieveReply_country=US
paySubscriptionRetrieveReply_currency=USD
paySubscriptionRetrieveReply_email=null@cybersource.com
paySubscriptionRetrieveReply_firstName=JOHN
paySubscriptionRetrieveReply_frequency=on-demand
paySubscriptionRetrieveReply_lastName=DOE
paySubscriptionRetrieveReply_paymentMethod=credit card
paySubscriptionRetrieveReply_paymentsRemaining=0
paySubscriptionRetrieveReply_postalCode=94045
paySubscriptionRetrieveReply_state=CA
paySubscriptionRetrieveReply_status=CURRENT
paySubscriptionRetrieveReply_street1=123 The Street
paySubscriptionRetrieveReply_subscriptionID=0000562489861111
paySubscriptionRetrieveReply_ownerMerchantID=infodev1

```

Deleting a Customer Profile**Example 13 Request: Deleting a Customer Profile**

```

merchantID=demoID
merchantReferenceCode=1111
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionDeleteService_run=true

```

Example 14 Reply: Deleting a Customer Profile

```

decision=ACCEPT
merchantReferenceCode=1111
paySubscriptionDeleteReply_reasonCode=100
paySubscriptionDeleteReply_subscriptionID=0000562489861111
reasonCode=100
requestID=3790698033130176056442

```

XML Examples

The XML schema for the Simple Order API is at:

<https://ics2wsa.ic3.com/commerce/1.x/transactionProcessor>

Creating a Customer Profile without a Setup Fee

Example 15 Request: Creating a Customer Profile without a Setup Fee

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <billTo>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <street1>1295 Charleston Road</street1>
    <city>Mountain View</city>
    <state>CA</state>
    <postalCode>94043</postalCode>
    <country>US</country>
    <email>john.doe@example.com</email>
  </billTo>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <card>
    <accountNumber>4111111111111111</accountNumber>
    <expirationMonth>12</expirationMonth>
    <expirationYear>2015</expirationYear>
    <cardType>001</cardType>
  </card>
  <recurringSubscriptionInfo>
    <frequency>on-demand</frequency>
  </recurringSubscriptionInfo>
  <paySubscriptionCreateService run="true"/>
</requestMessage>
```

Example 16 Reply: Creating a Customer Profile without a Setup Fee

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:ccAuthReply>
    <c:amount>0.00</c:amount>
    <c:authorizationCode>888888</c:authorizationCode>
    <c:authorizationDateTime>2013-09-13T10:14:06Z</c:authorizationDateTime>
    <c:avsCode>X</c:avsCode>
    <c:reasonCode>100</c:reasonCode>
    <c:reconciliationID>40368790XLILGOLX</c:reconciliationID>
  </c:ccAuthReply>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paySubscriptionCreateReply>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:paySubscriptionCreateReply>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
</c:replyMessage>

```

Creating a Customer Profile with a 5.00 Setup Fee

Example 17 Request: Creating a Customer Profile with a 5.00 Setup Fee

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <billTo>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <street1>1295 Charleston Road</street1>
    <city>Mountain View</city>
    <state>CA</state>
    <postalCode>94043</postalCode>
    <country>US</country>
    <email>john.doe@example.com</email>
    <phoneNumber>650-965-6000</phoneNumber>
  </billTo>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>5.00</grandTotalAmount>
  </purchaseTotals>

```

```

<card>
  <accountNumber>4111111111111111</accountNumber>
  <expirationMonth>12</expirationMonth>
  <expirationYear>2015</expirationYear>
  <cardType>001</cardType>
</card>
<recurringSubscriptionInfo>
  <frequency>on-demand</frequency>
</recurringSubscriptionInfo>
<paySubscriptionCreateService run="true"/>
<ccAuthService run="true"/>
<ccCaptureService run="true"/>
</requestMessage>

```

Example 18 Reply: Creating a Customer Profile with a 5.00 Setup Fee

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:ccAuthReply>
    <c:amount>5.00</c:amount>
    <c:authorizationCode>888888</c:authorizationCode>
    <c:authorizationDateTime>2013-09-13T10:14:06Z</c:authorizationDateTime>
    <c:avsCode>X</c:avsCode>
    <c:reasonCode>100</c:reasonCode>
    <c:reconciliationID>40368790XLILGOLX</c:reconciliationID>
  </c:ccAuthReply>
  <c:ccCaptureReply>
    <c:amount>5.00</c:amount>
    <c:requestDateTime>2013-09-13T10:14:06Z</c:requestDateTime>
    <c:reasonCode>100</c:reasonCode>
    <c:reconciliationID>40368790XLILGOLX</c:reconciliationID>
  </c:ccCaptureReply>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paySubscriptionCreateReply>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:paySubscriptionCreateReply>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
</c:replyMessage>

```

Updating a Customer Profile

Updating a Card Account Number

Example 19 Request: Updating a Customer Profile (Card Details)

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <card>
    <accountNumber>4111111111111234</accountNumber>
    <expirationMonth>12</expirationMonth>
    <expirationYear>2015</expirationYear>
    <cardType>001</cardType>
  </card>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
  <paySubscriptionUpdateService run="true"/>
</requestMessage>
```

Example 20 Reply: Updating a Customer Profile (Card Details)

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:paySubscriptionUpdateReply>
    <c:ownerMerchantID>infodev1</c:ownerMerchantID>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:paySubscriptionUpdateReply>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
</c:replyMessage>
```

Removing Card Expiration Dates

Example 21 Request: Removing Card Expiration Dates

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <card>
    <expirationMonth>0</expirationMonth>
    <expirationYear>0</expirationYear>
  </card>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
  <paySubscriptionUpdateService run="true"/>
</requestMessage>
```

Example 22 Reply: Removing Card Expiration Dates

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:paySubscriptionUpdateReply>
    <c:ownerMerchantID>infodev1</c:ownerMerchantID>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:paySubscriptionUpdateReply>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
</c:replyMessage>
```

Updating an eCheck Account Number

Example 23 Request: Updating an eCheck Account Number

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <check>
    <accountNumber>32189375</accountNumber>
  </check>
  <paySubscriptionUpdateService run="true"/>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861112</subscriptionID>
  </recurringSubscriptionInfo>
</requestMessage>
```

Example 24 Reply: Updating a Customer Subscription (Card Details)

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:paySubscriptionUpdateReply>
    <c:ownerMerchantID>infodev</c:ownerMerchantID>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861112</c:subscriptionID>
  </c:paySubscriptionUpdateReply>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
</c:replyMessage>
```

Retrieving a Customer Profile

Example 25 Request: Retrieving a Customer Profile

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
  <paySubscriptionRetrieveService run="true"/>
</requestMessage>
```

Example 26 Reply: Retrieving a Customer Profile

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
  <c:recurringSubscriptionRetrieveReply>
    <c:approvalRequired>>false</c:approvalRequired>
    <c:automaticRenew>>false</c:automaticRenew>
    <c:cardAccountNumber>4111111111111111</c:cardAccountNumber>
    <c:cardExpirationMonth>12</c:cardExpirationMonth>
    <c:cardExpirationYear>2015</c:cardExpirationYear>
    <c:cardType>001</c:cardType>
    <c:city>The City</c:city>
    <c:country>US</c:country>
    <c:currency>USD</c:currency>
    <c:email>john.doe@example.com</c:email>
    <c:firstName>John</c:firstName>
    <c:frequency>on-demand</c:frequency>
    <c:lastName>Doe</c:lastName>
    <c:ownerMerchantID>infodev1</c:ownerMerchantID>
    <c:paymentMethod>credit card</c:paymentMethod>
    <c:paymentsRemaining>0</c:paymentsRemaining>
    <c:postalCode>94045</c:postalCode>
    <c:reasonCode>100</c:reasonCode>
    <c:state>CA</c:state>
    <c:status>CURRENT</c:status>
    <c:street1>123 The Street</c:street1>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:recurringSubscriptionRetrieveReply>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
</c:replyMessage>

```

Deleting a Customer Profile

Example 27 Request: Deleting a Customer Profile

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
  <paySubscriptionDeleteService run="true"/>
</requestMessage>

```

Example 28 Reply: Deleting a Customer Profile

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:paySubscriptionDeleteReply>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0000562489861111</c:subscriptionID>
  </c:paySubscriptionDeleteReply>
  <c:requestID>3790672461500176056470</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:merchantReferenceCode>1111</c:merchantReferenceCode>
</c:replyMessage>
```
