

Recurring Billing

Using the Simple Order API for CyberSource Essentials

January 2019

CyberSource[®]
the power of payment

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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>.

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Recent Revisions to This Document

Release	Changes
January 2019	Updated the link to MIT FAQs. See "Merchant-Initiated Transactions," page 44.
October 2018	Added an Important note. See "Recurring Billing," page 11. Added information about merchant-initiated transactions. See "Merchant-Initiated Transactions," page 44.
June 2018	This revision contains only editorial changes and no technical updates.
February 2018	Updated the test card numbers. See "Test Card Numbers," page 20. Moved the relaxed requirements information to a web page: Relaxed Requirements for Address Data and Expiration Date page.
April 2017	Added the "Updating an eCheck Account Number" section. See "eCheck," page 34. Added the "Updating an eCheck Account Number" example. See Example 12, "Request: Update an eCheck Account Number," on page 87.
December 2016	Added the invoiceHeader_merchantDescriptorAlternate reply field. See invoiceHeader_merchantDescriptorAlternate, page 60.

About This Guide

Audience and Purpose

This guide is written for merchants who want to create customer payment subscriptions 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 *subscription ID*, which you store on your network.

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

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"> Field and service names in text; for example: Include the billTo_firstName field. Items that you are instructed to act upon; for example: Click Save.
Screen text	<ul style="list-style-type: none"> XML elements. Code examples and samples.

Related Documents

Refer to the Support Center for complete CyberSource technical documentation:

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

Table 1 Related Documents

Subject	Description
Account Updater	<i>Account Updater User Guide</i> (PDF HTML)—describes how to automatically incorporate changes made to a customer's payment card data.
Batch Submission	<i>Batch Submission User Guide</i> (PDF HTML)—describes how to send a batch file of order requests to CyberSource.
Business Center	<i>Business Center User Guide</i> (PDF HTML)—describes the features and options available within the Business Center.
Credit Card	<i>Credit Card Services User Guide</i> (PDF HTML)—describes how to integrate credit card processing into your order management system.
eCheck	<i>Electronic Check Services User Guide</i> (PDF HTML)—describes how to integrate eCheck processing into your order management system.
Offline Transaction Submission	<i>Offline Transaction File Submission Implementation Guide</i> (PDF HTML).
Payment Network Tokenization	<i>Payment Network Tokenization Using the Simple Order API</i> (PDF HTML)—describes how to add payment network tokenization to an order management system that already uses CyberSource credit card services.
Payment Tokenization	<i>Payment Tokenization Using the Simple Order API for CyberSource Essentials</i> (PDF HTML)—describes how to request the Payment Tokenization services using the Simple Order API.
Reporting	<i>Reporting User Guide</i> (PDF HTML)—describes how to view and configure Business Center reports.

Table 1 Related Documents (Continued)

Subject	Description
Simple Order API	<ul style="list-style-type: none"><li data-bbox="738 317 1406 380">■ <i>Getting Started with CyberSource Essentials</i> (PDF HTML)—describes how to get started using the Simple Order API.<li data-bbox="738 394 1406 457">■ Simple Order API and SOAP Toolkit API Documentation and Downloads page.<li data-bbox="738 472 1406 535">■ Simple Order API and SOAP Toolkit API Testing Information page.

Customer Support

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

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

Introduction

Recurring Billing

Recurring Billing subscriptions support installment payments (see "[Installment Subscriptions](#)," page 13) and recurring payments (see "[Recurring Subscriptions](#)," page 13). For information about on-demand payments see *Payment Tokenization Using the Simple Order API for CyberSource Essentials*.

A *subscription ID*, also known as a *payment token* (see "[Secure Acceptance](#)," page 12), which you can store on your server, is a unique identifier that cannot be reverse-engineered. It is generated to replace sensitive card and billing information.

Recurring Billing 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 Recurring Billing 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

Recurring Billing can be used only to collect scheduled payments from customers, not to disburse payments.

Payment Network Token

**Important**

CyberSource payment tokenization and payment network tokenization are different features:

- The CyberSource token (the subscription 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.
-

Subscription ID

**Important**

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

There are three types of subscription IDs:

- 22 digit—the default subscription ID.
- 16 digit—displays the final 4 digits of the primary account number (PAN) and passes Luhn mod-10 checks. This subscription ID is for card customer subscriptions.
- 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 subscription ID.

Secure Acceptance

Payment Token

If you are using Secure Acceptance to process transactions, the payment token is the customer subscription ID (see "[Subscription ID](#)," page 12). The payment token identifies the card and retrieves the associated billing, shipping, and card information.

Customer Subscriptions



For information about processing on-demand payments for a customer profile, see [Payment Tokenization Using the Simple Order API for CyberSource Essentials](#).

There are two types of subscriptions: installment subscriptions and recurring subscriptions. A customer subscription contains specific information about a customer that you store in the CyberSource database for future billing. You can also view the customer subscription in the CyberSource Business Center.

A customer subscription includes:

- Customer contact information, such as billing and shipping information.
- Customer payment information, such as card type, masked account number, and expiration date.
- Customer order information, such as the transaction reference number and merchant defined data fields.

Installment Subscriptions

An installment subscription (see "[Creating an Installment Subscription](#)," page 25) allows you to charge a customer's preferred payment method on a fixed number of scheduled payments. You must specify the number of payments, the amount and frequency of each payment, and the start date for processing the payments. CyberSource creates a schedule based on this information and automatically bills the customer according to the schedule. For example, you can offer a product for 75.00 and let the customer pay in three installments of 25.00.

Recurring Subscriptions

A recurring subscription (see "[Creating an Installment Subscription](#)," page 25) allows you to charge a customer's preferred payment method on a recurring payment basis with no specific end date. You must specify the amount and frequency of each payment and the start date for processing the payments. CyberSource creates a schedule based on this information and automatically bills the customer according to the schedule. For example, you can offer an online service to which the customer subscribes and can charge a monthly fee.

After you have created a customer subscription, the following tasks are available to you:

- Update customer subscription information (see ["Updating a Subscription," page 32](#)).
- Change the payment method of a customer subscription (see ["Updating Subscription Payments," page 36](#)).
- Process an on-demand transaction using the customer subscription details. You can process an authorization, credit, eCheck credit, and an eCheck debit (see ["On-Demand Transactions," page 37](#)).
- Retrieve customer subscription information (see ["Retrieving Subscription Details," page 31](#)).
- Cancel a customer subscription (see ["Canceling a Subscription," page 40](#)).
- Delete a customer subscription (see ["Deleting a Subscription," page 41](#)).

On-Demand Customer Profile

For information about processing on-demand payments for a customer profile, see [Payment Tokenization Using the Simple Order API for CyberSource Essentials](#).

Supported Processors and Payment Methods

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



Note

The *other* payment method enables you to store data securely in a customer subscription. This payment method is useful if you do not intend to use the customer subscription for payment transactions. See ["Optional Data Storage," page 46](#)



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 2 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 prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, and Diners Club cards. ■ Electronic check. ■ Replacement expiration dates are supported for Visa and Mastercard cards. See "Replacement Expiration Dates," page 48. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.
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 prepaid card—supports partial authorizations for Visa, Mastercard, American Express, and Discover cards. ■ Replacement expiration dates are supported for Visa and Mastercard cards. See "Replacement Expiration Dates," page 48. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.
FDC Nashville Global	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB (US Domestic) cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.
FDMS Nashville	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB (US Domestic) cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.

Table 2 Supported Processors and Payment Methods (Continued)

Processor	Payment Method
FDMS South	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, and JCB (US Domestic) cards. ■ Replacement expiration dates are supported for Visa and Mastercard cards. See "Replacement Expiration Dates," page 48.
GPN	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.
Moneris	Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.
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 prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 47.

Relaxed Requirements for Address Data and Expiration Date

To enable relaxed requirements for address data and expiration date, contact CyberSource Customer Support to have your account configured for this feature. For details about relaxed requirements, see the [Relaxed Requirements for Address Data and Expiration Date](#) page.

To enable relaxed requirements for address data and expiration date, contact CyberSource Customer Support to have your account configured for this feature. For details about relaxed requirements, see the [Relaxed Requirements for Address Data and Expiration Date](#) page.

Types of Authorizations

Table 3 Types of Authorizations

Authorization	Description
Automatic preauthorization	<p>Automatically preauthorize a credit card when you create a customer subscription, or automatically preauthorize a bank account when you create an eCheck customer subscription. See "Automatically Preauthorizing an Account," page 21.</p> <p>Depending on the payment method and if your account has been configured for automatic preauthorizations, 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 when you create a customer subscription. This feature is available only with the CyberSource API. See "Manually Preauthorizing a Subscription," page 24.</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 subscription. CyberSource does not charge you for reversing automatic preauthorizations. If you cannot create a customer subscription for any reason, or if the preauthorization amount is 0.00, CyberSource does not reverse the automatic preauthorization.</p> <p>Important TSYS Acquiring Solutions does not support automatic preauthorization reversals.</p>

Table 3 Types of Authorizations (Continued)

Authorization	Description
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> <p>Note Partial authorizations for prepaid cards and debit cards cannot be performed for automatic preauthorizations.</p>

Authorization Consents

Authorization for Electronic Checks

To support customer subscriptions that use electronic checks, you must display a separate consent agreement accepted by the customer before you create the customer subscription. 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 is available in XML and CSV formats and provides detailed information about customer subscriptions and their transactions.

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 *Business Center Reporting Developer Guide* ([PDF](#) | [HTML](#)).

Subscription Payment Exception Report

The Subscription Payment Exception Report provides information about installment and recurring customer subscriptions. The report includes two lists: retry mode and on hold. See "[Subscription Payment Exception Report](#)," page 45.

Transaction Endpoints



Contact CyberSource Customer Support to configure your account for Recurring Billing.

For live transactions, send requests to the production server:

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

When you use the production server, 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>

For test transactions, send requests to the test server:

<https://ics2wstesta.ic3.com/commerce/1.x/transactionProcessor>

Search for and view your test subscriptions in the test version of the Business Center:

<https://ebctest.cybersource.com>

Test Card Numbers

Use the credit card numbers in the following table to test transactions. Do not use real credit card numbers. To test card types not listed in the table, use an account number that is within the card's bin range. For best results, try each test with a different CyberSource service request and with different test credit card numbers.

Table 4 Test Credit Card Numbers

Credit Card Type	Test Account Number (Remove spaces when sending to CyberSource.)
American Express	3782 8224 6310 005
Diners Club	3800 0000 0000 06
Discover	6011 1111 1111 1117
JCB	3566 1111 1111 1113
Maestro (International)	5033 9619 8909 17 5868 2416 0825 5333 38
Maestro (UK Domestic)	6759 4111 0000 0008 6759 5600 4500 5727 054 5641 8211 1116 6669 Note Effective May 2011, the issue number is no longer required for Maestro (UK Domestic) transactions.
Mastercard	2222 4200 0000 1113 2222 6300 0000 1125 5555 5555 5555 4444
Visa	4111 1111 1111 1111

Validating a Subscription

Three validation methods are available to validate a customer subscription before you create it.

Charging a Setup Fee

This fee can be charged only for card and eCheck payments. It is a one-time optional fee that you can charge only when you are creating a customer subscription.

Request the **paySubscriptionCreateService** and include the setup fee in the **purchaseTotals_grandTotalAmount** field, along with the other required fields for creating a subscription. See "[Credit Card](#)," page 25.



Important

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

Automatically Preauthorizing an Account

Only card payments and eCheck payments can be preauthorized, and CyberSource does not charge you for this feature. Before the customer subscription is created, CyberSource authorizes a small amount against the payment method entered for the customer subscription. Each payment processor supports different preauthorization amounts. See "[Supported Processors and Payment Methods](#)," page 14.

If your account is configured for automatic preauthorizations, CyberSource automatically runs several fraud checks depending on the payment method:

- AVS checks—credit card only.
- CVN checks—credit card only.
- Decision Manager—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 subscription with automatic preauthorizations and automatic preauthorization reversals enabled, the order of services is:

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

To enable automatic preauthorizations using the Business Center:

- 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 **Recurring Billing > Settings**.
- Step 3** Check **Perform an automatic preauthorization before creating subscriptions**.
- Step 4** Click **Submit Changes**.
-

To set the e-commerce indicator for the first payment to recurring:

- 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 **Recurring Billing > Settings**.
- Step 3** Check **Set e-commerce indicator for first payment to Recurring**.



Important

All subsequent recurring payments are set to recurring regardless of this setting. This setting is for all card types on Atos and for Mastercard and American Express transactions on FDC Nashville Global.

- Step 4** Click **Submit Changes**.
-

To disable automatic preauthorizations using the API:



Note

Use the `paySubscriptionCreateService_disableAutoAuth` field if your CyberSource account is configured for automatic preauthorizations.

- Step 1** Request the `paySubscriptionCreateService` service. See "[Creating a Recurring Subscription](#)," page 28.
- Step 2** In the `paySubscriptionCreateService` request, set the `paySubscriptionCreateService_disableAutoAuth` field to `true`.
-

Manually Preauthorizing a Subscription

This feature is available only for card payments and eCheck payments. You can manually preauthorize a customer's subscription when you create it.



Important

If your processor (see "[Supported Processors and Payment Methods](#)," [page 14](#)) supports full authorization reversals, and if you charged more than 0.00 for the preauthorization, CyberSource recommends that you subsequently request a full authorization reversal.

To manually preauthorize a card customer subscription:

Step 1 Request the `paySubscriptionCreateService` service. See "[Credit Card](#)," [page 25](#).

Step 2 Include the following fields in the request:

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



Note

For all card types on Atos and for Mastercard and American Express transactions on FDC Nashville Global, include the following fields:

- `ccAuthService_commerceIndicator=recurring`
To use the Business Center for setting the e-commerce indicator to recurring, see "[Automatically Preauthorizing an Account](#)," [page 21](#).
- `ccAuthService_firstRecurringPayment=TRUE`
- `card_cvNumber`

See *Credit Card Services User Guide* ([PDF](#)|[HTML](#)) for detailed descriptions of the above request fields.

To manually preauthorize an eCheck customer subscription:

Step 1 Request the `paySubscriptionCreateService` service. See "[eCheck](#)," [page 26](#).

Step 2 Include the following fields in the request:

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

Creating an Installment Subscription

Credit Card

**Important**

You must validate the customer account before you create the customer subscription. See ["Validating a Subscription," page 21](#). If you need to include a setup fee, see ["Charging a Setup Fee," page 21](#).

To create an installment subscription:

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

Step 2 Include the following fields in the request:

- `billTo_city`
- `billTo_country`
- `billTo_email`
- `billTo_firstName`
- `billTo_lastName`
- `billTo_postalCode`
- `billTo_state`
- `billTo_street1`
- `card_accountNumber`
- `card_cardType`
- `card_expirationMonth`
- `card_expirationYear`
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `recurringSubscriptionInfo_amount`
- `recurringSubscriptionInfo_frequency`
- `recurringSubscriptionInfo_numberOfPayments`
- `recurringSubscriptionInfo_startDate`

See [Appendix A, "API Fields,"](#) on page 50, for detailed descriptions of the request and reply fields. See [Example 2, page 83,](#) for a request and reply example.

eCheck



Important

You must validate the customer account before the customer subscription is created. See ["Validating a Subscription,"](#) page 21.

To create a customer subscription:

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

Step 2 Include the following fields in the request:

- `billTo_city`
- `billTo_companyTaxID`—contact your TeleCheck representative to learn whether this field is required or optional.
- `billTo_country`
- `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_email`
- `billTo_firstName`
- `billTo_lastName`
- `billTo_phoneNumber`—contact your payment processor representative to learn whether this field is required or optional.
- `billTo_postalCode`
- `billTo_state`
- `billTo_street1`

- `check_accountNumber`
- `check_accountType`
- `check_bankTransitNumber`
- `check_checkNumber`—contact your payment processor representative to learn whether this field is required or optional.
- `check_secCode`—required if your processor is TeleCheck.
- `merchantID`
- `merchantReferenceCode`
- `purchaseTotals_currency`
- `recurringSubscriptionInfo_amount`
- `recurringSubscriptionInfo_frequency`
- `recurringSubscriptionInfo_numberOfPayments`
- `recurringSubscriptionInfo_startDate`
- `subscription_paymentMethod`—set to `check`.

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields.

Creating a Recurring Subscription

Credit Card

**Important**

You must validate the customer account before you create the customer subscription. See ["Validating a Subscription," page 21](#). If you need to include a setup fee, see ["Charging a Setup Fee," page 21](#).

To create a recurring subscription:

- 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:
- `billTo_city`
 - `billTo_country`
 - `billTo_email`
 - `billTo_firstName`
 - `billTo_lastName`
 - `billTo_postalCode`
 - `billTo_state`
 - `billTo_street1`
 - `card_accountNumber`
 - `card_cardType`
 - `card_expirationMonth`
 - `card_expirationYear`
 - `merchantID`
 - `merchantReferenceCode`
 - `purchaseTotals_currency`
 - `recurringSubscriptionInfo_amount`

- recurringSubscriptionInfo_frequency
- recurringSubscriptionInfo_startDate

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields. See [Example 4, page 84](#), for a request and reply example.

eCheck



Important

You must validate the customer account before the customer subscription is created. See ["Validating a Subscription," page 21](#).

To create a recurring subscription:

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

Step 2 Include the following fields in the request:

- `billTo_city`
- `billTo_companyTaxID`—contact your TeleCheck representative to learn whether this field is required or optional.
- `billTo_country`
- `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_email`
- `billTo_firstName`
- `billTo_lastName`
- `billTo_phoneNumber`—contact your payment processor representative to learn whether this field is required or optional.
- `billTo_postalCode`

- billTo_state
- billTo_street1
- check_accountNumber
- check_accountType
- check_bankTransitNumber
- check_checkNumber—contact your payment processor representative to learn whether this field is required or optional.
- check_secCode—required if your processor is TeleCheck.
- merchantID
- merchantReferenceCode
- purchaseTotals_currency
- recurringSubscriptionInfo_frequency
- subscription_paymentMethod—set to `check`.

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields.

Retrieving Subscription Details

You can retrieve details of a subscription. See [Example 15, page 88](#), for more information about the details in the reply.

To retrieve a subscription details:

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 50](#), for detailed descriptions of the request and reply fields. See [Example 14, page 87](#), for a request and reply example.

Updating a Subscription

Card

Updating Card Account Number



Important

You can update all fields except the **recurringSubscriptionInfo_frequency**, **recurringSubscriptionInfo_startDate** and **recurringSubscriptionInfo_numberOfPayments** fields. 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 subscription ID (see "[Subscription ID](#)," page 12), and you update the card number, you receive a new subscription ID if the last four digits of the new card number are different from the previous card number. The status of the previous subscription ID changes to *superseded*. You cannot update, delete, or cancel a customer subscription that has a status of *superseded*.

To update a customer's card account number:



Note

When you update the card number for a customer subscription, CyberSource recommends that you validate the customer subscription. See "[Validating a Subscription](#)," page 21.

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`
- `card_expirationYear`
- `merchantID`

- merchantReferenceCode
- recurringSubscriptionInfo_subscriptionID

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields. See [Example 6, page 85](#), for a request and reply example.

Removing Card Expiration Date

To remove a customer's card expiration date:

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

Step 2 Include the following fields in the request:

- card_expirationMonth—set to 0.
- card_expirationYear—set to 0.
- merchantID
- merchantReferenceCode
- recurringSubscriptionInfo_subscriptionID

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields. See [Example 8, page 86](#), for a request and reply example.

eCheck

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 50](#), for detailed descriptions of the request and reply fields. See [Example 12, page 87](#), for a request and reply example.

Changing the Payment Method



You must validate the customer account before the customer subscription is created. See "[Validating a Subscription](#)," page 21.



You cannot change the payment method to or from the *Other* payment method. The *Other* payment method enables you to store data securely in a customer subscription. This payment method is useful if you do not intend to use the customer subscription for payment transactions. See [Payment Tokenization Using the Simple Order API for CyberSource Essentials](#).

To change the payment method of a customer subscription:

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

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_subscriptionID`
- `subscription_paymentMethod`—change to `credit card` or `check`.

See [Appendix A, "API Fields,"](#) on page 50, for detailed descriptions of the request and reply fields.

Updating Subscription Payments

To update subscription payments:

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

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `paySubscriptionEventUpdateService_action`—include this field to skip, unskip, approve, or unapprove a payment. Set to `skip`, `unskip`, `approve`, or `unapprove`.
- `paySubscriptionEventUpdateService_event_amount`—include this field to change the payment amount associated with the subscription.
- `paySubscriptionEventUpdateService_event_approvedBy`—enter the name of the financial institution or person who is approving the payment.
- `paySubscriptionEventUpdateService_event_number`
- `recurringSubscriptionInfo_numberOfPaymentsToAdd`—include this field to add a number of payments to a subscription.
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields.

On-Demand Transactions

Requesting an On-Demand Transaction

An on-demand transaction is a real-time transaction using the details stored in a customer profile. On-demand transactions that you can request are:

- Credit cards—authorization, sale (an 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 50, for detailed descriptions of the request and reply fields.

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 50](#), for detailed descriptions of the request and reply fields.

Converting a Transaction to a Customer Subscription



Important

Transaction information resides in the CyberSource database for 60 days after the transaction is processed. When you create a customer subscription from an existing transaction, the account is already validated. You can charge a setup fee. See ["Charging a Setup Fee," page 21](#).



Note

If your account is configured to use automatic preauthorizations, CyberSource does not perform a preauthorization when you convert a transaction to a customer subscription.

To convert a transaction to a customer subscription:

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

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `paySubscriptionCreateService_paymentRequestID`—include the request ID value returned from the original transaction request.

- recurringSubscriptionInfo_frequency



Note

If you are using the FDC Nashville Global processor, you can also update the **billTo_email** field. Include the field with the new value in the request.

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields.

Canceling or Deleting a Subscription

Canceling a Subscription



Only recurring and installment customer subscriptions can be canceled.

To cancel a customer subscription:

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

Step 2 Include the following fields in the request:

- `merchantID`
- `merchantReferenceCode`
- `recurringSubscriptionInfo_status`—set to `cancel`.
- `recurringSubscriptionInfo_subscriptionID`

See [Appendix A, "API Fields," on page 50](#), for detailed descriptions of the request and reply fields. See [Example 18, page 89](#), for a request and reply example.

Deleting a Subscription

**Important**

Deleting a customer subscription is permanent. When a subscription is deleted, any subscriptions it superseded are also deleted.

To delete a customer subscription:

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 50](#), for detailed descriptions of the request and reply fields. See [Example 16, page 88](#), for a request and reply example.

Additional Features

Email Notifications



You can configure email notifications on the Subscription Settings page in the Business Center, or contact CyberSource Customer Support to configure this functionality.

CyberSource can send emails to your customers on your behalf to alert them of events related to their subscriptions. CyberSource offers the following types of email notifications:

- Pre-processing notification—informs the customer of an upcoming payment. This message can be sent seven days before CyberSource processes the payment. You can configure this setting by selecting the number of days the customer receives the notification before their transaction has been processed. When a card is to expire within 60 days, CyberSource adds a paragraph with this information to the message.
- Successful payment message—informs the customer of a successful payment. This email message is not sent if you process a one-time payment for a subscription.
- Failed payment message—informs the customer of a problem with one of the payments for the installment or recurring subscription. This email is sent only when the subscription goes on hold, not simply because one payment attempt has failed.

To configure email notifications:

- 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 **Recurring Billing > Settings**.
- Step 3** Configure the email notifications you would like to send to a customer.
- Step 4** Click **Submit Changes**.
-

Email Format

For each type of notification, you must enter text in each section of the message:

Header—use the header section to add information about your company appropriate for the type of email message. For example, if the email is a successful payment message, the text you might add is *Demo company thanks you for your recent purchase.*

Body—use the body section to add information about the transaction appropriate for the type of email message. Add the customer’s name, a description of the product purchased, and the total amount for the transaction.

Footer—use the footer to add a message that gives the customer contact details for your company. For example, *If you have any queries relating to your purchase, please visit us at www.democompany.com or call us at 123-123-1234.*

Email Smart Tags

You can insert email smart tags to add specific information to each email notification. If no data exists for the smart tag, no information is displayed in the email.

Table 5 Email Smart Tags

Smart Tag	Description
##AMOUNT##	Amount of the payment.
##COMMENTS##	Optional comments that you included when creating the subscription.
##CUSTOMER_ACCOUNT_ID##	Optional account ID, tracking number, reward number, or other unique number that you assign to the customer.
##CUSTOMER_FIRST_NAME##	Customer first name.
##CUSTOMER_LAST_NAME##	Customer last name.
##ACCOUNT_NUMBER_LAST_DIGITS##	Card number with all but the last four digits masked.
##MERCHANT_NAME##	Merchant name.
##ORDER_NUMBER##	Order or merchant reference number that you assigned to the customer’s subscription.
##PAYMENT_DATE##	Date that a successful payment or failed payment attempt was processed.
##SCHEDULED_DATE##	Date of an upcoming payment that is used for the pre-notification email.
##TITLE##	Title of the customer subscription.

Email Templates

CyberSource provides email templates for each type of email notification.

Successful Payment Template

Subject: Your Account Has Been Billed by ##MERCHANT_NAME##
 <HEADER>
 Dear ##CUSTOMER_FIRST_NAME## ##CUSTOMER_LAST_NAME##,
 A payment has been charged to your account:
 Order Number: ##ORDER_NUMBER##
 For: ##TITLE##
 On: ##PAYMENT_DATE##
 Amount: ##AMOUNT##
 Account: ##ACCOUNT_NUMBER_LAST_DIGITS##
 <FOOTER>

Failed Payment Template

Subject: ##MERCHANT_NAME## Had a Problem Billing Your Account
 <HEADER>
 Dear ##CUSTOMER_FIRST_NAME## ##CUSTOMER_LAST_NAME##,
 Order Number: ##ORDER_NUMBER##
 For: ##TITLE##
 On: ##PAYMENT_DATE##
 Amount: ##AMOUNT##
 Account: ##ACCOUNT_NUMBER_LAST_DIGITS##
 <FOOTER>

Merchant-Initiated Transactions

For information about merchant-initiated transactions, see:

[FAQ for Merchants Using CyberSource Tokenization or Recurring Billing](#)

Payment Exceptions



Contact CyberSource Customer Support to set the maximum amount of payment retries before a transaction is placed *on hold*.

If a scheduled credit card payment fails, CyberSource automatically retries to collect the payment. While CyberSource is retrying to process the transaction, the customer subscription is in *retry mode*. After all possible retries are exhausted, the customer subscription changes from *retry mode* to *on hold*.

Subscription Payment Exception Report

The Subscription Payment Exception Report provides information about installment and recurring customer subscriptions. The report includes two lists: a *retry mode* list and an *on hold* list.

Retry Mode

Subscriptions in this list are in *retry mode* because CyberSource is attempting to process payments that have failed.

Corrective Action (On Hold)

Subscriptions in the *On Hold* list are on hold because they need corrective action. This situation exists because all retries have been exhausted or because a payment failed for a reason that requires your attention, such as an expired credit card number. You cannot manually place a subscription on hold, and CyberSource does not automatically cancel a subscription that is on hold.

If the subscription went on hold for a reason that requires you to update the subscription, contact the customer to get the updated information. When you update the subscription, it is automatically taken off hold, and all past payments are automatically scheduled for collection the next day. If you want to prevent the past-due payment from being scheduled, you can skip it. See "[Updating Subscription Payments](#)," page 36.



CyberSource recommends that you skip past-due payments before updating a subscription with the correct information. If you update the subscription first and then skip the past-due payments, you could create a timing conflict that results in the payments being executed instead of being skipped. To avoid this possibility, skip the payments before updating the subscription.

To take a subscription off hold:

- Step 1** Determine why the subscription is on hold:
- In the Subscription Payment Exception Report, look at the status column.
 - View the transaction details for the last failed payment attempt by viewing the subscription information. See ["Updating Subscription Payments," page 36](#).
- Step 2** Update the subscription with new or corrected information. See ["Updating Subscription Payments," page 36](#).

When you update the subscription, it is automatically taken off hold and all past payments are automatically scheduled for collection the next day. To prevent past-due payments from being scheduled, you can skip them as described in ["Updating Subscription Payments," page 36](#).

Optional Data Storage

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

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

- **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 subscription based on an existing transaction, the merchant-defined data fields are not transferred to the new customer subscription.

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** field 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 [Payment Tokenization Using the Simple Order API for CyberSource Essentials](#).

Replacement Expiration Dates



Note

Contact CyberSource Customer Support to configure your account to use replacement expiration dates. This feature is available only for installment and recurring customer subscriptions.



Important

Effective October 17, 2014, an issuing bank can decline an authorization request for a recurring transaction with a Visa Europe card if the expiration date is incorrect, invalid, or missing. If you do not provide the correct expiration date for a recurring transaction the authorization request may be declined.

Your account can be configured so that when a credit card's expiration date passes, CyberSource automatically uses a replacement expiration date to process payments for that customer subscription. See "[Supported Processors and Payment Methods](#)," page 14, for a list of processors that support replacement expiration dates.

Customer Subscription Sharing



Note

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

When you create a customer subscription, your CyberSource merchant ID is associated with that subscription. You can share customer profiles among merchant IDs, and you can access customer subscriptions 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 subscription information—in your request include your merchant ID and the subscription ID of the customer subscription (see [Chapter 5, "Retrieving Subscription Details," on page 31](#)). If the customer subscription is not enabled for subscription sharing, CyberSource returns the reason code 150 (see "[Reason Codes](#)," page 77).
- Update customer subscription information—In your request include your merchant ID and the subscription ID of the customer subscription (see [Chapter 5, "Retrieving Subscription Details," on page 31](#)). If the customer subscription is not enabled for profile sharing, CyberSource returns the reason code 150 (see "[Reason Codes](#)," page 77).

- Perform an on-demand transaction using the customer subscription—In your request include your merchant ID and the subscription ID of the customer subscription (see [Chapter 5, "Retrieving Subscription Details," on page 31](#)). If the customer subscription is not enabled for profile subscription, CyberSource returns the reason code 150 (see ["Reason Codes," page 77](#)).

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

Account Updater

CyberSource Account Updater is integrated with the Recurring Billing functionality so that your customer subscriptions can be kept current 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 subscription IDs (tokens) to be processed by the Account Updater service, or CyberSource can configure your account to automatically update your customer subscriptions with updated credit card data. See the *Account Updater User Guide* ([PDF](#) | [HTML](#)).

API Fields

Data Type Definitions

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

Table 6 Data Type Definitions

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

Numbered Elements

The CyberSource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, when a customer order includes more than one item, you must include multiple `<item>` elements in your request. Each item is numbered, starting with 0. The XML schema uses an `id` attribute in the item's opening tag to indicate the number. For example:

```
<item id="0">
```

As a name-value pair field name, this tag is represented as **item_0**. In this portion of the field name, the underscore before the number does not indicate hierarchy in the XML schema. The item fields are generically referred to as **item_#_<element name>** in the documentation.

Below is an example of the numbered `<item>` element and the corresponding name-value pair field names. If you are using SOAP, the client contains a corresponding `Item` class.

Example 1 Numbered XML Schema Element Names and Name-Value Pair Field Names

XML Schema Element Names	Corresponding Name-Value Pair Field Names
<pre><item id="0"> <unitPrice> <quantity> </item></pre>	<pre>item_0_unitPrice item_0_quantity</pre>
<pre><item id="1"> <unitPrice> <quantity> </item></pre>	<pre>item_1_unitPrice item_1_quantity</pre>



When a request is in XML format and includes an `<item>` element, the element must include an `id` attribute. For example: `<item id="0">`.

Service Names

The Recurring Billing service names in the API field tables have been shortened:

Table 7 Shortened Service Names

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

Request Fields

Table 8 Request Fields

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
billTo_city	City of the billing address. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	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 if this field is required or optional.	Create (See description) Update (See description)	String (9)
billTo_country	Country of the billing address. Use the two-character <i>ISO Standard Country Codes</i> . Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹	String (2)
billTo_customerID	Your identifier for the customer.	Create (O) Update (O)	String (100)
billTo_dateOfBirth	Customer's 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 if 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 <i>State, Province, and Territory Codes for the United States and Canada</i> . Important Contact your TeleCheck representative to find out if this field is required or optional.	Create (See description) Update (See description)	String (2)
billTo_email	Customer email address. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (255)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
billTo_firstName	Customer's first name. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (60)
billTo_lastName	Customer's last name. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (60)
billTo_phoneNumber	Customer's phone number. When creating a customer subscription, 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)
billTo_postalCode	Postal code for the billing address. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] Example A1B 2C3 Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (10)
billTo_state	State or province in the billing address. Use the State, Province, and Territory Codes for the United States and Canada . Important Required when the billing country is the U.S. or Canada; otherwise, optional. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (See description) ¹ Update (O)	String (2)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
billTo_street1	<p>First line of the billing address.</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	<p>Create (R)¹</p> <p>Update (O)</p>	<p>Moneris: String (50)</p> <p>All other processors: String (60)</p>
billTo_street2	<p>Second line of the billing address.</p>	<p>Create (O)</p> <p>Update (O)</p>	<p>Moneris: String (50)</p> <p>All other processors: String (60)</p>
businessRules_declineAVSFlags	<p>List of AVS codes that cause the customer subscription 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 "Automatically Preauthorizing an Account," page 21.</p> <p>Important You must include the value <code>N</code> in the list if you want to receive declines for the AVS code <code>N</code>.</p>	<p>Create (O)</p>	<p>String (255)</p>
businessRules_ignoreAVSResult	<p>Indicates whether CyberSource should ignore the results of the AVS check and create the customer subscription even if the credit card does not pass the AVS check. Use this field only if you are using automatic preauthorization.</p> <p>Important Do not use this field if you are using Smart Authorization to alert you to authorizations that fail AVS or CVN checks.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ <code>true</code>: ignore the results of the AVS check and create the customer subscription. ■ <code>false</code> (default): if the AVS check fails, do not create the customer subscription. <p>When this value is <code>true</code>, the list in the businessRules_declineAVSFlags field is ignored.</p>	<p>Create (O)</p>	<p>String (5)</p>

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
card_accountNumber	Card account number.	Create (R for card payments) Update (O)	String (20)
card_cardType	Type of card to authorize. For more information about which cards can be handled by each processor, see <i>Credit Card Services User Guide</i> (PDF HTML). Possible values: <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 Ingenico ePayments. For other processors, use 001 for all Visa card types. ■ 033: Visa Electron ■ 034: Dankort ■ 036: Cartes Bancaires ■ 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. 	Create (R for card payments) 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 "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
card_cvIndicator	<p>Indicates whether a card verification number was included in the request. Possible values:</p> <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	<p>Card verification number. Include this field only if you are using automatic preauthorization and want to run the CVN check.</p> <p>Important For the American Express card type, the CVN must be 4 digits.</p> <p>Note Do not include this field if you are creating a customer subscription that uses Ingenico ePayments.</p>	Create (O)	String with numbers only (4)
card_expirationMonth	<p>Expiration month.</p> <p>Format: MM</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	Create (R for card payments) Update ¹	String (2)
card_expirationYear	<p>Expiration year.</p> <p>Format: YYYY</p> <p>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.</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	Create (R for card payments) Update ¹	FDC Nashville Global and FDMS South: String (See description) All other processors: String (4)
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
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)
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)
ccAuthService_cavv	Visa Cryptogram for payment network tokenization transactions. The value for this field must be 28 character base64 or 40-character hex binary. All cryptograms use one of these formats. American Express Block A of the cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.	Create (R-required for payment network token transactions with Visa and American Express)	String (40)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
ccAuthService_ commerceIndicator	<p>Manual Preauthorization on a Card Type of transaction for card subscriptions. Possible value:</p> <ul style="list-style-type: none"> ■ <code>recurring</code>: recurring transaction <p>Required for all card types on Atos and Mastercard and American Express on FDC Nashville Global. See "Manually Preauthorizing a Subscription," page 24.</p>	Create (R- required for manual preauthorizations on a card)	String (13)
ccAuthService_xid	<p>Visa Cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.</p> <p>American Express Block B of the cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.</p>	Create (R- required for payment network token transactions with Visa and American Express)	String (40)
check_accountNumber	Checking account number.	Create (R for eCheck payments) Update (O)	String (8 to 17)
check_accountType	<p>Checking account type. Possible values:</p> <ul style="list-style-type: none"> ■ <code>C</code>: checking ■ <code>S</code>: savings (USD only) ■ <code>X</code>: corporate checking (USD only) ■ <code>G</code>: general ledger 	Create (R for eCheck payments) Update (O)	String (1)
check_bankTransitNumber	<p>Bank routing number. This value is also known as the <i>transit number</i>.</p> <p>If the currency used is CAD, the maximum length of the routing number is 8 digits.</p> <p>If the currency used is USD, the maximum length of the routing number is 9 digits.</p>	Create (R for eCheck payments) Update (O)	String (9)
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 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. 	<p>Create (R for eCheck payments)</p> <p>Update (O)</p>	String (3)
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
decisionManager_enabled	<p>Indicates whether to use Smart Authorization for a customer subscription.</p> <p>Use this field only if you are using Smart Authorization and are configured to use automatic preauthorizations as described on "Automatically Preauthorizing an Account," page 21.</p> <p>If your account is enabled for Smart Authorization, Smart Authorization will be used on the preauthorization that occurs before the customer subscription is created. You can use this field to turn off Smart Authorization for the preauthorization for this specific customer subscription.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ <code>false</code>: do not use Smart Authorization for this customer subscription. ■ <code>true</code> (default): use Smart Authorization for this customer subscription. 	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"> ■ <code>false</code>: do not ignore the card expiration date. ■ <code>true</code>: ignore the card expiration date. <p>Note If set to true, the <code>paySubscriptionCreateService_disableAutoAuth</code> field must also be set to true.</p>	Create (O)	String (5)
invoiceHeader_merchantDescriptorAlternate	<p>Alternate contact information for your business, such as an email address or URL.</p>	Create (O) Retrieve (O)	String (13)
item_0_unitPrice	<p>Use this field or the <code>purchaseTotals_grandTotalAmount</code> field to specify the amount for a setup fee or for a manual preauthorization.</p>	Create (See description) Update (O)	String (15)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 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 46.</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 subscription based on an existing transaction, the merchant-defined data fields do not get transferred to the new customer subscription.</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	String (50)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 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.	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. 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 subscription (see " Authorization Consents ," page 18). Use this field if your CyberSource account is configured for automatic preauthorizations but for this specific customer subscription you want to override that setting. Possible values: <ul style="list-style-type: none"> ■ <code>false</code>: no, go ahead and perform the preauthorization for this customer subscription. ■ <code>true</code>: yes, turn off the preauthorization check for this customer subscription. 	Create (O)	String (5)
paySubscriptionCreateService_paymentRequestID	The request_id value returned from a previous request for a authorization transaction. This value links the previous request to the current follow-on request. This field is required when converting an existing authorization to a customer subscription.	Create (O)	String (26)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
paySubscriptionEventUpdate Service_action	Action to perform for the payment that is being updated. Possible values: <ul style="list-style-type: none"> ■ approve: approve the payment for processing. ■ unapprove: unapprove the payment. CyberSource will not process the payment. ■ skip: skip the payment. CyberSource will not process the payment. ■ unskip: unskip the payment. Unskipping a payment does not automatically approve it. You must approve the payment in a separate request. 	Event Update (O)	String (9)
paySubscriptionEventUpdate Service_event_amount	Amount of the individual payment.	Event Update (O)	String (15)
paySubscriptionEventUpdate Service_event_approvedBy	Name of the financial institution or person who is approving the payment.	Event Update (O)	String (30)
paySubscriptionEventUpdate Service_event_number	Number of the payment to update. For example, for a subscription with monthly payments that start in January, a value of 6 indicates that the June payment in the first year of the subscription and a value of 15 indicates the March payment in the second year of the subscription.	Event Update (O)	String (15)
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.	Create (See description) Update (O)	String (15)
recurringSubscriptionInfo_ amount	Amount of the subscription payments. This value must be greater than 0; otherwise, the recurring or installment subscription is not created.	Create (R) Update (O)	String (15)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
recurringSubscriptionInfo_ automaticRenew	Indicates whether to automatically renew the payment schedule for a subscription. Possible values: <ul style="list-style-type: none"> ■ true (default): automatically renew. ■ false: do not renew automatically. 	Create (O)	String (5)
recurringSubscriptionInfo_ billPayment	Indicates that the payments for this customer subscription are for the Bill Payment program. This feature applies to all transactions using this customer subscription. Possible values: <ul style="list-style-type: none"> ■ false (default): not a Visa Bill Payment. ■ true: Visa Bill Payment. 	Create (O) Update (O)	String (1)
recurringSubscriptionInfo_ frequency	Frequency of payments for the subscription. Possible values: <ul style="list-style-type: none"> ■ on-demand: no payment schedule. See Payment Tokenization Using the Simple Order API for CyberSource Essentials. ■ weekly: every 7 days. ■ bi-weekly: every 2 weeks. ■ quad-weekly: every 4 weeks. ■ monthly ■ semi-monthly: twice every month (1st and 15th). ■ quarterly ■ semi-annually: twice every year. ■ annually 	Create (R)	String (20)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
recurringSubscriptionInfo_numberOfPayments	Total number of payments for the duration of the installment subscription. The maximum allowed value is 261, which is the equivalent of 5 years (including two leap days) of weekly payments. Maximum values: <ul style="list-style-type: none"> ■ 261: weekly ■ 130: bi-weekly ■ 65: quad-weekly ■ 60: monthly ■ 120: semi-monthly ■ 20: quarterly ■ 10: semi-annually ■ 5: annually ■ 0: on demand. No recurring frequency. See Payment Tokenization Using the Simple Order API for CyberSource Essentials .	Create (R for installment subscriptions; otherwise, not used.)	Integer (3)
recurringSubscriptionInfo_numberOfPaymentsToAdd	Number of payments to add to an existing installment subscription. The maximum allowed value is 261, which is the equivalent of 5 years (including two leap days) of weekly payments.	Update (O)	Integer (3)
recurringSubscriptionInfo_startDate	Date when your customer is billed for the first time for an installment or recurring subscription. Format: YYYYMMDD	Create (O)	String (10)
recurringSubscriptionInfo_status	Status for the installment or recurring subscription. Possible value: <ul style="list-style-type: none"> ■ cancel: cancel all future scheduled payments for the subscription. 	Update (O)	String (15)
recurringSubscriptionInfo_subscriptionID	Value that identifies the customer subscription for which the service is being requested. This value was sent to you when the customer subscription was created.	Update (R) Retrieve (R)	String (26)
shipTo_city	City of the shipping address.	Create (O) Update (O)	String (50)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
shipTo_country	Country code for the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	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)
shipTo_postalCode	Postal code for the shipping address. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] Example A1B 2C3 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.	Create (O) Update (O)	String (10)
shipTo_state	State or province in the shipping address. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> .	Create (O) Update (O)	String (2)
shipTo_street1	First line of the street address in the shipping address.	Create (O) 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 "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 8 Request Fields (Continued)

Field Name	Description	Used by & Required (R)/ Optional (O)	Data Type & Length
shipTo_street2	Second line of the street address in the shipping address.	Create (O) Update (O)	String (60)
subscription_paymentMethod	Method of payment. See "Supported Processors and Payment Methods," page 14. Possible values: <ul style="list-style-type: none"> ■ credit card ■ check ■ other—"Optional Data Storage," page 46. 	Create (See description) Update (O)	String (20)
subscription_title	Name or title for the customer subscription.	Create (O) 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 "Relaxed Requirements for Address Data and Expiration Date," page 16. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Reply Fields

Table 9 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 <i>Credit Card Services User Guide</i> (PDF HTML).	Create	String (7)
ccAuthReply_authorizationDateTime	Time of authorization.	Create	String (20)
ccAuthReply_avsCode	AVS results. See " AVS and CVN Codes ," page 80 .	Create	String (1)
ccAuthReply_avsCodeRaw	AVS result code sent directly from the processor. See " AVS and CVN Codes ," page 80 .	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 77 .	Create	Integer (5)
ccAuthReply_reconciliationID	Reference number for the transaction. This value is not returned for all processors. See <i>Getting Started with CyberSource Essentials</i> (PDF HTML) for information about order tracking and reconciliation.	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 77 .	Create	Integer (5)
ccCaptureReply_reconciliationID	Reference number for the transaction. This value is not returned for all processors. See <i>Getting Started with CyberSource Essentials</i> (PDF HTML) for information about order tracking and reconciliation.	Create	String (60)
ccCaptureReply_requestDateTime	Time of capture.	Create	String (20)

Table 9 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 through invalidField_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 through missingField_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)
paySubscriptionCreate Reply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 77.	Create	Integer (5)
paySubscriptionCreate Reply_subscriptionID	Identifier for the customer subscription.	Create	String (26)
paySubscriptionDelete Reply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 77.	Delete	Integer (5)
paySubscriptionDelete Reply_subscriptionID	Identifier for the customer subscription.	Delete	String (26)

Table 9 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 46.	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 46.	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	Indicates if the installment or recurring subscription uses approval-required payments.	Retrieve	String (5)
paySubscription RetrieveReply_ automaticRenew	Indicates if the installment subscription will be automatically renewed.	Retrieve	String (5)
paySubscription RetrieveReply_bill Payment	Indicates whether the payments for this customer subscription 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 47.	Retrieve	String (1)

Table 9 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. For the possible values, see the description for card_cardType in Table 8, page 52 .	Retrieve	String (3)
paySubscription RetrieveReply_check AccountNumber	Bank account number.	Retrieve	String (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	String (9)

Table 9 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—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. 	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 subscription.	Retrieve	String (255)
paySubscription RetrieveReply_companyName	Name of the customer's company.	Retrieve	String (40)
paySubscription RetrieveReply_companyTaxID	Company's tax identifier.	Retrieve	String (9)

Table 9 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_country	Country code for the billing address. Use the two-character ISO Standard Country 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. Use the State, Province, and Territory Codes for the United States and Canada .	Retrieve	String (2)
paySubscription RetrieveReply_email	Customer's email address.	Retrieve	String (255)
paySubscription RetrieveReply_endDate	End date for the installment subscription.	Retrieve	String (8)
paySubscription RetrieveReply_firstName	Customer's first name.	Retrieve	String (60)
paySubscription RetrieveReply_frequency	Frequency of payments for the customer subscription.	Retrieve	String (20)
paySubscription RetrieveReply_lastName	Customer's last name.	Retrieve	String (60)
paySubscription RetrieveReply_merchantReferenceCode	Merchant-generated order reference or tracking number.	Retrieve	String (50)
paySubscription RetrieveReply_merchantSecureDataField4	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 46 .	Retrieve	String (2071)

Table 9 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscription RetrieveReply_owner MerchantID	CyberSource merchant ID that was used to create the customer subscription for which the service was requested. This field is returned only if you are using subscription sharing and only if you requested this service for a customer subscription that was created with a CyberSource merchant ID for which sharing is enabled. See " Customer Subscription Sharing ," page 48.	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 77.	Retrieve	Integer (5)
paySubscription RetrieveReply_ recurringAmount	Payment amount for the customer subscription.	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 Standard Country 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)
paySubscription RetrieveReply_shipTo State	State or province of shipping address. Use the State, Province, and Territory Codes for the United States and Canada .	Retrieve	String (2)

Table 9 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
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	Start date for an installment or recurring subscription.	Retrieve	String (8)
paySubscription RetrieveReply_state	State or province of billing address. Use the State, Province, and Territory Codes for the United States and Canada .	Retrieve	String (2)
paySubscription RetrieveReply_status	Status of the customer subscription. Possible values: <ul style="list-style-type: none"> ■ Cancelled: the customer subscription has been cancelled. ■ Completed: the payment schedule has been completed and no more payments are scheduled. ■ Current: the customer subscription is active. ■ Hold: the customer subscription payments are on hold. ■ Superseded: the subscription ID for the customer subscription has been superseded with a new subscription ID. 	Retrieve	String (9)
paySubscription RetrieveReply_street1	First line of billing address.	Retrieve	String (60)
paySubscription RetrieveReply_street2	Second line of billing address.	Retrieve	String (60)
paySubscription RetrieveReply_subscriptionID	Identifier for the customer subscription.	Retrieve	String (26)
paySubscription RetrieveReply_subscriptionIDNew	Identifier for the customer subscription. Note This 16-digit subscription ID supersedes the previous subscription ID for the same customer subscription.	Retrieve	String (16)
paySubscription RetrieveReply_title	Name or title for the customer subscription.	Retrieve	String (60)
paySubscription RetrieveReply_total Payments	Total number of payments in the schedule for an installment subscription.	Retrieve	Integer (3)

Table 9 Reply Fields (Continued)

Field Name	Description	Returned by	Data Type & Length
paySubscriptionUpdateReply_ownerMerchantID	CyberSource merchant ID that was used to create the customer subscription for which the service was requested. This field is returned only if you are using subscription sharing and only if you requested this service for a customer subscription that was created with a CyberSource merchant ID for which sharing is enabled. See " Customer Subscription Sharing ," page 48.	Update	String (30)
paySubscriptionUpdateReply_reasonCode	Numeric value corresponding to the result of the service request. See " Reason Codes ," page 77.	Update	Integer (5)
paySubscriptionUpdateReply_subscriptionID	Identifier for the customer subscription.	Update	String (16 or 26)
paySubscriptionUpdateReply_subscriptionIDNew	Identifier for the customer subscription. Note This 16-digit subscription ID supersedes the previous subscription ID for the same customer subscription.	Update	String (16)
reasonCode	Numeric value corresponding to the result of the entire request. See " Reason Codes ," page 77.	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. The string can contain a maximum of 256 characters.	All Services	String (256)

Reason Codes

The following table describes the reason codes returned by the Simple Order API for customer subscriptions.



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 10 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 14.
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 10 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 10 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 11 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 12 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 12 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 12 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 13 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.

Examples

Name-Value Pair Examples

Creating a Customer Subscription

Installment: Credit Card without a Setup Fee

Example 2 Request: Credit Card Subscription 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=john.doe@example.com
purchaseTotals_currency=USD
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2014
card_cardType=001
merchantID=infodev
merchantReferenceCode=14344
recurringSubscriptionInfo_amount=11.00
recurringSubscriptionInfo_numberOfPayments=4
recurringSubscriptionInfo_automaticRenew=false
recurringSubscriptionInfo_frequency=monthly
recurringSubscriptionInfo_startDate=20140221
paySubscriptionCreateService_run=true
```

Example 3 Reply: Credit Card Subscription without a Setup Fee

```

ccAuthReply_amount=0.00
ccAuthReply_authorizedDateTime=2013-09-24T10:07:11Z
ccAuthReply_avsCode=X
ccAuthReply_reasonCode=100
ccAuthReply_reconciliationID=41841677NLYC9U2M
decision=ACCEPT
merchantReferenceCode=14344
paySubscriptionCreateReply_reasonCode=100
paySubscriptionCreateReply_subscriptionID=0000567547771111
purchaseTotals_currency=USD
reasonCode=100
requestID=3800172310440176056442

```

Recurring: Credit Card with a 5.00 Setup Fee**Example 4 Request: Credit Card Subscription 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=john.doe@example.com
purchaseTotals_currency=USD
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2014
card_cardType=001
merchantID=infodev
merchantReferenceCode=14344
recurringSubscriptionInfo_amount=11.00
recurringSubscriptionInfo_automaticRenew=false
recurringSubscriptionInfo_frequency=weekly
recurringSubscriptionInfo_startDate=20140221
purchaseTotals_grandTotalAmount=5.00
paySubscriptionCreateService_run=true
ccAuthService_run=true
ccCaptureService_run=true

```

Example 5 Reply: Credit Card Subscription with a 5.00 Setup Fee

```

ccAuthReply_amount=5.00
ccAuthReply_authorizationCode=888888
ccAuthReply_authorizedDateTime=2013-09-24T10:18:03Z
ccAuthReply_avsCode=X
ccAuthReply_reasonCode=100
ccAuthReply_reconciliationID=41842441NLYC9V03
ccCaptureReply_amount=5.00
ccCaptureReply_reasonCode=100
ccCaptureReply_reconciliationID=41842441NLYC9V03
ccCaptureReply_requestDateTime=2013-09-24T10:18:03Z
decision=ACCEPT
merchantReferenceCode=14344
paySubscriptionCreateReply_reasonCode=100
paySubscriptionCreateReply_subscriptionID=0000567549751111
purchaseTotals_currency=USD
reasonCode=100
requestID=3800178832420176056428

```

Updating a Customer Subscription

Updating a Card Account Number

**Important**

If your account is configured to use a 16 digit format-preserving subscription ID (see "[Subscription ID](#)," page 12), and you update the card number, you receive a new subscription ID if the last four digits of the new card number are different from the previous card number. The status of the previous subscription ID changes to *superseded*. You cannot update, delete, or cancel a customer subscription that has a status of *superseded*.

Example 6 Request: Update a Customer Subscription (Card Details)

```

merchantID=demoID
merchantReferenceCode=0001
card_accountNumber=4111111111111112
card_expirationMonth=01
card_expirationYear=2019
card_cardType=001
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionUpdateService_run=true

```

Example 7 Reply: Update a Customer Subscription (Card Details)

```

decision=ACCEPT
merchantReferenceCode=0001
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionIDNew=0000562489861111
reasonCode=100
requestID=3790686238410176056470

```

Removing Card Expiration Dates**Example 8 Request: Remove Card Expiration Dates**

```

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

```

Example 9 Reply: Remove Card Expiration Dates

```

decision=ACCEPT
merchantReferenceCode=0001
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionIDNew=0000562489861111
reasonCode=100
requestID=3790686238410176056470

```

Updating a Payment Event**Example 10 Request: Update a Payment Event**

```

merchantID=demoID
merchantReferenceCode=0001
recurringSubscriptionInfo_event_amount=10.00
recurringSubscriptionInfo_event_number=2
recurringSubscriptionInfo_subscriptionID=0000562489861111
paySubscriptionEventUpdateService_run=true

```

Example 11 Reply: Update a Payment Event

```

decision=ACCEPT
merchantReferenceCode=0001
reasonCode=100
requestID=3790686238410176056470
paySubscriptionEventUpdateReply_reasonCode=100

```

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 12 Request: Update an eCheck Account Number

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

Example 13 Reply: Update an eCheck Account Number

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

Retrieving a Customer Subscription

Example 14 Request: Retrieve a Customer Subscription

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

Example 15 Reply: Retrieve a Customer Subscription

```

decision=ACCEPT
merchantReferenceCode=1111
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=weekly
paySubscriptionRetrieveReply_lastName=DOE
paySubscriptionRetrieveReply_ownerMerchantID=infodev1
paySubscriptionRetrieveReply_paymentMethod=credit card
paySubscriptionRetrieveReply_paymentsRemaining=2
paySubscriptionRetrieveReply_postalCode=94045
paySubscriptionRetrieveReply_reasonCode=100
paySubscriptionRetrieveReply_state=CA
paySubscriptionRetrieveReply_status=CURRENT
paySubscriptionRetrieveReply_street1=123 The Street
paySubscriptionRetrieveReply_subscriptionID=0000562489861111
purchaseTotals_currency=USD
reasonCode=100
requestID=3790689247280176056442

```

Deleting a Customer Subscription**Example 16 Request: Delete a Customer Subscription**

```

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

```

Example 17 Reply: Delete a Customer Subscription

```

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

```

Canceling a Customer Subscription

Example 18 Request: Cancel a Customer Subscription

```
merchantID=demoID  
merchantReferenceCode=1111  
recurringSubscriptionInfo_status=cancel  
recurringSubscriptionInfo_subscriptionID=0000562489861111  
paySubscriptionUpdateService_run=true
```

Example 19 Reply: Cancel a Customer Subscription

```
decision=ACCEPT  
merchantReferenceCode=1111  
paySubscriptionUpdateReply_reasonCode=100  
paySubscriptionUpdateReply_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 Subscription

Installment: Credit Card without a Setup Fee

Example 20 Request: Credit Card Subscription without a Setup Fee

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <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>
  </purchaseTotals>
  <card>
    <accountNumber>4111111111111111</accountNumber>
    <expirationMonth>12</expirationMonth>
    <expirationYear>2015</expirationYear>
    <cardType>001</cardType>
  </card>
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <recurringSubscriptionInfo>
    <amount>11.00</amount>
    <numberOfPayments>4</numberOfPayments>
    <automaticRenew>>false</automaticRenew>
    <frequency>monthly</frequency>
    <startDate>20140221</startDate>
  </recurringSubscriptionInfo>
  <paySubscriptionCreateService run="true"/>
</requestMessage>
```

Example 21 Reply: Credit Card Subscription 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>

```

Recurring: Credit Card with a 5.00 Setup Fee**Example 22 Request: Credit Card Subscription with a 5.00 Setup Fee**

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.92">
  <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>
<merchantID>infodev</merchantID>
<merchantReferenceCode>14344</merchantReferenceCode>
<recurringSubscriptionInfo>
  <amount>11.00</amount>
  <automaticRenew>false</automaticRenew>
  <frequency>monthly</frequency>
  <startDate>20140221</startDate>
</recurringSubscriptionInfo>
<paySubscriptionCreateService run="true"/>
<ccAuthService run="true"/>
<ccCaptureService run="true"/>
</requestMessage>

```

Example 23 Reply: Credit Card Subscription 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 Subscription

Updating a Card Account Number

Example 24 Request: Update a Customer Subscription (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>
  <paySubscriptionUpdateService run="true"/>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
</requestMessage>
```

Example 25 Reply: Update 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>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 26 Request: Remove 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>
  <paySubscriptionUpdateService run="true"/>
  <recurringSubscriptionInfo>
    <subscriptionID>0000562489861111</subscriptionID>
  </recurringSubscriptionInfo>
</requestMessage>
```

Example 27 Reply: Remove Card Expiration Dates

```
<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>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 28 Request: Update 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 29 Reply: Update an eCheck Account Number

```

<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 Subscription

Example 30 Request: Retrieve a Customer Subscription

```

<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 31 Reply: Retrieve a Customer Subscription

```

<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>weekly</c:frequency>
    <c:lastName>Doe</c:lastName>
    <c:ownerMerchantID>infodev</c:ownerMerchantID>
    <c:paymentMethod>credit card</c:paymentMethod>
    <c:paymentsRemaining>2</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 Subscription

Example 32 Request: Delete a Customer Subscription

```

<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 33 Reply: Delete a Customer Subscription

```
<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>
```

Canceling a Customer Subscription

Example 34 Request: Cancel a Customer Subscription

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

Example 35 Reply: Cancel a Customer Subscription

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.92">
  <c:paySubscriptionUpdateReply>
    <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>
```
