Recurring Billing

Using the Simple Order API

June 2013

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the power of payment

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Contents

Recent Revisions to This Document

Release	Changes
June 2013	■ This revision contains only editorial changes and no technical updates.
February 2013	■ Updated the "About Subscriptions" section. See page 10.
	■ Updated the "Flagging Payments for Visa Bill Payment Program" section. See page 30.
	■ Updated the **recurringSubscriptionInfo_billPayment** API request field. See Table 21, page 105.
	■ Added the **recurringSubscriptionInfo_endDate** API request field. See Table 20, page 95.
June 2012	■ Updated FDMS South section. See "Credit Cards," page 12.
	■ Updated the Business Center menu for Recurring Billing.
	■ Added the "Removing the Subscription Hold Status" section. See page 56.
	■ Updated the "Preauthorizations" section. See "Supported Processors for Credit Cards," page 25.
January 2012	■ Added the following API reply fields—See Additional Reply Fields for Electronic Checks, Table 25, page 116:
	● **paySubscriptionRetrieveReply_checkAuthenticateID**
	● **paySubscriptionRetrieveReply_checkSecCode**
November 2011	■ This revision contains only editorial changes and no technical updates.
September 2011	■ Added required data for specific payment types. See Table 1, page 16.
	■ Added the following API reply fields—See Additional Reply Fields for Electronic Checks, Table 25, page 116:
	● **paySubscriptionRetrieveReply_companyTaxID**
	● **paySubscriptionRetrieveReply_dateOfBirth**
	● **paySubscriptionRetrieveReply_driversLicenseNumber**
	● **paySubscriptionRetrieveReply_driversLicenseState**
May 2011	■ Removed Solo as a supported card type.

About This Guide

Audience

This guide is written for merchants who want to create recurring customer subscriptions and eliminate payment data from their network to ensure that customer's sensitive personal information is not compromised during a security breach.

Purpose

This guide describes tasks you must complete to create, update, retrieve, and delete recurring customer subscriptions.

Conventions

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

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

Related Documentation

- *Account Updater User Guide*—describes how to automatically incorporate changes made to a customer's payment card data.

- *Enterprise Business Center Overview*—describes the features and options available within the Business Center.

- *Hosted Order Page User's Guide*—describes how to create and integrate seamlessly with the Hosted Order page.

- *PINless Debit Card Services Implementation Guide*—describes how to integrate PINless processing into your order management system.

- *Reporting Developer's Guide*—describes how to view and configure Business Center reports.

- *Silent Order POST User's Guide*—describes how to create and integrate seamlessly with the Silent Order POST.

- *Secure Acceptance Web/Mobile Configuration Guide*—describes how to create and integrate seamlessly with the Secure Acceptance Web/Mobile.

- *Secure Acceptance Silent Order POST Development Guide*—describes how to create and integrate seamlessly with the Secure Acceptance Silent Order POST.

- *Offline Transaction File Submission Implementation Guide.*

Introduction

Recurring Billing

Recurring Billing supports recurring and installment subscription payments, and on-demand customer profile payments. A subscription ID, also known as a *token*, takes the place of sensitive credit card information. The subscription ID retains the last four digits of the primary account number (PAN) in order to accurately match the subscription ID to the card owner. The remaining numbers are generated using proprietary tokenization algorithms.

If you are storing credit card information, the PAN is easily uploaded to CyberSource's databases using CyberSource's API or batch loading processes. The payment tokenization solution is compatible with the Visa and MasterCard Account Updater service, in which all payment information stored with CyberSource is automatically updated by participating banks, thereby reducing payment failures.

About Subscriptions

A customer subscription consists of information about a customer that you store in the CyberSource database for future billing. A customer subscription includes:

■ The customer's name

■ The customer's required contact information, such as the billing address

■ The customer's optional contact information, such as the email address, phone number, and shipping address

■ A form of payment for the customer, such as a card number or bank account number

■ Metadata about the subscription or customer profile, such as a merchant reference number, a customer ID, a title for the subscription or customer profile, or comments

■ Optional storage fields in which you can store any type of data

The following table describes the types of subscriptions:

Type of Subscription	Description
Installment subscription	An installment subscription lets you process a fixed number of payments for a customer. For example, you can offer a product that costs 75.00 and let the customer pay in three installments of 25.00 each. An installment subscription includes this additional information: ■ Number of payments ■ Collection amount ■ Frequency for collecting the payments, such as weekly or monthly ■ Starting date for collecting payments CyberSource creates a schedule based on this information and automatically bills the customer according to the schedule. Partial authorizations for prepaid cards and debit cards cannot be enabled for automatic transactions that are part of an installment or recurring subscription. See "Types of Authorizations," page 24.
Recurring subscription	A recurring profile lets you offer an ongoing service that has no specific end. For example, you can offer an online service that the customer subscribes to. You can charge a monthly fee for the service. A recurring profile includes this additional information: ■ Collection amount ■ Frequency for collecting the payments, such as weekly or monthly ■ Starting date for collecting payments CyberSource creates a schedule based on this information and automatically bills the customer according to the schedule. Partial authorizations for prepaid cards and debit cards cannot be enabled for automatic transactions that are part of an installment or recurring subscription. See "Types of Authorizations," page 24.

Payment Methods

Credit Cards

Note	Recurring Billing does not support payments that use Bill Me Later or encoded account numbers.

Note	Authorizations can be partially approved for prepaid cards and debit cards. For more information about partial authorizations, see "Types of Authorizations," page 24.

Credit card customer profiles are supported for the following processors:

- AIBMS
- American Express Brighton
- American Express Phoenix
- Asia-Mideast Processing
- Barclays
- CCS (CAFIS)
- Chase Paymentech Solutions
- Citibank—Contact your CyberSource sales representative for details about the Citibank platforms
- FDC Compass
- FDC Germany
- FDC Nashville Global
- FDMS Nashville
- FDMS South—Visa does not support Recurring Billing using the Canadian dollar. currency.
- FDI Australia

- Global Collect

Note

Offline credit cards with Global Collect are supported but do not use an online authorization process like online credit cards do. You can create a subscription or customer profile with an offline credit card, but without an online authorization, you cannot determine whether the credit card number is valid before the subscription or customer profile is created. If the information is invalid, the first payment is rejected and CyberSource immediately places the subscription on hold. For more information about online and offline credit cards, refer to the following documents:

- *Global Payment Service Planning Guide*
- *Credit Card Services with the Simple Order API*
- *Credit Card Services with the SCMP API*

- GPN
- HSBC
- Litle
- LloydsTSB Cardnet
- OmniPay-Ireland
- RBS WorldPay Atlanta
- Streamline
- TSYS Acquiring Solutions

Electronic Checks

Electronic check subscriptions and customer profiles are supported for the following processors:

- Chase Paymentech Solutions
- CyberSource ACH Service
- RBS WorldPay Atlanta
- TeleCheck

Before creating an electronic check subscription or customer profile, you must obtain your customer's consent. See "Authorization for Electronic Checks," page 23.

PINless Debits

PINless debit customer profiles are supported for the following processor:

■   GPN

The networks that support PINless debit customer profiles are:

■   STAR

■   NYCE

■   Pulse

■   Accel

You must use the Simple Order API, the SCMP API, or the Business Center to submit customer profile requests for PINless debits. The Hosted Order Page and Silent Order POST do not support PINless debits.

Before creating a PINless debit customer profile, you must obtain your customer's consent. To understand the authorization consent statement, see "Obtaining and Displaying Customer Consent," page 23.

Other (Data Storage)

The "other" payment method enables you to store data securely in a customer profile. This payment method is useful if you do not intend to use the customer profile for payment transactions:

■   You can specify the "other" payment method only when creating a new on-demand customer profile.

■   The "other" payment method does not work for installment or recurring subscriptions.

■   You cannot use the "other" payment method when converting an existing authorization or when changing the payment method for an existing customer profile.

You must use the Simple Order API or the SCMP API to submit customer profile requests for the "other" payment method. The Business Center, Hosted Order Page, and Silent Order POST do not support the "other" payment method.

See "Optional Storage Data," page 31 to understand the kinds of data storage fields.

Creating a Customer Subscription

When you create an installment or recurring subscription, you must provide the following information:

■ Customer's payment information

> ✏️ **Note** The term *payment information* refers to the customer's billing information (contact information such as name, address, phone, etc.) and the customer's account information (card account number or bank account number as well as information needed to access the account, such as card type, CVN, expiration date, routing number, etc.).

■ Your own reference number or order number that you can use to cross-reference the customer profile in your system.

■ Optional data of any type that is encrypted before being stored in the CyberSource database.

■ Payment Amount.

■ Frequency of payments, such as weekly or monthly.

■ Total number of payments for installment subscriptions only.

■ An optional start date for the payments—see "Start Date for Payments," page 32.

■ Whether the payments require approval or are automatic—see "Automatic Payments or Payments Requiring Approval," page 34.

■ For installment subscriptions, an indicator that you do not want to renew the subscription payments when the payment schedule completes—"Disabling Automatic Renewal," page 33.

> ⚡ **Warning** The default is automatic renewal, so you must indicate that you do not want to renew installment payments. See "Disabling Automatic Renewal," page 33.

■ An optional setup fee—see "Charging a Setup Fee," page 28.

> **Note**
>
> If you charge a setup fee when creating a customer profile or subscription for a debit card or prepaid card, you can enable partial authorizations for the setup fee. If the issuing bank approves a partial amount for the setup fee, the subscription is not created. Therefore, CyberSource recommends that you do not enable partial authorizations for setup fees. For more information about partial authorizations, see "Types of Authorizations," page 24.

When you create a customer subscription for electronic checks or PINless debits, you must obtain an explicit consent from the customer. See "Obtaining and Displaying Customer Consent," page 23.

Creating a Customer Subscription

To create a recurring customer subscription:

Step 1 Set the **paySubscriptionCreateService** field to true.

Step 2 Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **billTo_city**
- **billTo_country**
- **billTo_email**
- **billTo_firstName**
- **billTo_lastName**
- **billTo_postalCode**
- **billTo_state**
- **billTo_street1**
- **purchaseTotals_currency**
- **recurringSubscriptionInfo_frequency**—This field is required.
- **item_0_unitPrice or purchaseTotals_grandTotalAmount**—Required only if you are charging a setup fee or are manually authorizing.
- **subscription_paymentMethod**—Required for all payment methods except credit cards because credit card is the default payment method.
- **recurringSubscriptionInfo_amount**

Step 3 Include any additional fields for each payment method. See Table 3, page 25.

To create an installment customer subscription:

Step 1 Set the **paySubscriptionCreateService** field to true.

Step 2 Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **billTo_city**
- **billTo_country**
- **billTo_email**
- **billTo_firstName**
- **billTo_lastName**
- **billTo_postalCode**
- **billTo_state**
- **billTo_street1**
- **purchaseTotals_currency**
- **recurringSubscriptionInfo_frequency**—This field is required.
- **recurringSubscriptionInfo_numberOfPayments**—Enter the number of payments.
- **item_0_unitPrice or purchaseTotals_grandTotalAmount**—Required only if you are charging a setup fee or manually authorizing.
- **subscription_paymentMethod**—Required for all payment methods except credit cards because credit card is the default payment method.
- **recurringSubscriptionInfo_amount**

Step 3 Include any additional fields for each payment method. See Table 1, page 18.

Table 1 **Additional Required Fields for Specific Payment Methods**

Payment Method	Additional Required Fields
Credit cards	■ **card_cardType**
	■ **card_accountNumber**
	■ **card_expirationMonth**
	■ **card_expirationYear**
	■ **ignoreCardExpiration**—Required only when creating a subscription using a card with an expired date.
	■ **paySubscriptionCreateService_disableAutoAuth**—Required when using the **ignoreCardExpiration** field.
	■ **paySubscriptionCreateService_paymentRequestID**—Required only when converting an existing credit card authorization into a customer profile.
	■ **orderRequestToken** or **paySubscriptionCreateService_ paymentRequestToken**—Required only when converting an existing credit card authorization into a customer profile.
	Additional required fields are described in "Additional Request Fields for Credit Cards," page 105.
Electronic checks	■ **billTo_dateOfBirth**
	■ **billTo_driversLicenseNumber** and **billTo_driversLicenseState**—Required only for personal checks with TeleCheck.
	■ Either **billTo_driversLicenseNumber** and **billTo_ driversLicenseState** or **billTo_companyTaxID**—Required only for corporate checks with TeleCheck.
	■ **billTo_phoneNumber**—Required only under certain conditions. See the field description in "Request Fields for All Payment Methods," page 95 for details.
	■ **check_accountNumber**
	■ **check_accountType**
	■ **check_bankTransitNumber**
	■ **check_secCode**
	■ **check_checkNumber**
	■ **check_bankTransitNumber**
	Additional required fields are described in "Additional Request Fields for Electronic Checks," page 109.
PINless debits	**card_accountNumber**
	Additional required fields are described in "Additional Request Fields for PINless Debits," page 112.

Table 1   Additional Required Fields for Specific Payment Methods (Continued)

Payment Method	Additional Required Fields
All methods	■ **merchantSecureData_field1** ■ **merchantSecureData_field2** ■ **merchantSecureData_field3** ■ **merchantSecureData_field4** You can include these fields regardless of the customer profile's payment method. CyberSource encrypts this data before storing it in the database. To understand the kinds of data storage fields, see "Optional Storage Data," page 31.

Validating the Account

To validate the account, CyberSource recommends that you use at least one of the following features.

■ *For credit cards*—Charge a setup fee or perform a preauthorization as described in "Preauthorizations," page 24. Contact your merchant account provider to verify whether you will be charged a fee for the preauthorization.

■ *For electronic checks*—Charge a setup fee or perform a preauthorization as described in "Preauthorizations," page 24.

■ *For PINless debits*—You must validate the card before you create the customer subscription. Request the PINless debit validate service; this is described in the *PINless Debit Card Services Implementation Guide*. Also you can choose to charge a setup fee as described in "Charging a Setup Fee," page 28.

Converting a Transaction into a Customer Subscription

You can convert an existing transaction into a customer subscription. The kinds of transactions that can be converted to a customer subscription are different for each connection method. You cannot override any of the information that is stored with the transaction.

This section describes the basic steps for creating a customer subscription by converting existing information. The conversions you can perform are:

■ Existing transaction to a customer subscription. The kinds of transactions that can be converted to a subscription are different for each connection method.

■ Existing PINless debit customer subscription to credit card customer subscription.

■ Existing credit card customer subscription to PINless debit customer subscription.

Note   Transaction information resides in the CyberSource database for 180 days after the transaction takes place.

Note   Even if your CyberSource account is configured to automatically preauthorize transactions, CyberSource does not preauthorize the transaction when you convert an existing transaction into a customer subscription.

Note   The Simple Order API supports the conversion of an existing transaction to a subscription for credit cards. This functionality is not supported for electronic checks or PINless debits.

Note   If you charge a setup fee when creating a customer subscription for a debit card or prepaid card, you can enable partial authorizations for the setup fee. If the issuing bank approves a partial amount for the setup fee, the subscription is not created. Therefore, CyberSource recommends that you do not enable partial authorizations for setup fees. For more information about partial authorizations, see "Types of Authorizations," page 24.

To convert a transaction to a customer subscription:

Step 1   Set the **paySubscriptionCreateService** field to true.

Step 2   Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **recurringSubscriptionInfo_frequency**—Set this field to recurring or installment.
- **paySubscriptionCreateService_paymentRequestID**—Required for converting an existing credit card authorization to a customer subscription.

See Appendix A, "API Fields," on page 95 for detailed descriptions of the request and reply fields.

Validating the Account

When you create a subscription or customer profile from existing transaction information:

- The account is already validated.
- You can charge a setup fee as described in "Charging a Setup Fee," page 28.

Changing the Payment Method of a Customer Subscription

You can change the payment method of a customer subscription. The changes that you can make are:

- From PINless to credit card—most PINless debit cards can be used as credit cards. This flexibility allows you to convert a PINless debit customer profile to a credit card customer subscription.
- From credit card to eCheck.
- From credit card to PINless debit.
- From PINless to eCheck.
- From eCheck to credit card.
- From eCheck to PINless debit.

To change to payment method of a customer subscription:

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

Step 2   Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **recurringSubscriptionInfo_subscriptionID**
- **subscription_paymentMethod**—Set this field to credit card, pinless debit, or check.

> **Note**   The card's expiration date and the card type are required for the credit card services, so if the PINless debit customer profile does not include this information, you must provide it in the **paySubscriptionUpdateService** request.

See for detailed descriptions of the request and reply fields.

Validating the Account

When you convert a a PINless debit customer profile to a credit card customer profile:

- The account is already validated.
- It is not possible to charge a setup fee.

Obtaining and Displaying Customer Consent

Authorization for Electronic Checks

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

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

Authorization for PINless Debits

You must have a consent statement that you display on your web site or read to the customer over the phone and that the customer must accept before you create a customer profile for PINless debits. The authorization consent 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 account number to be debited.
- Clearly indicate that the authorization is for a one-time purchase.
- Specify the frequency of the debits and the period of time for which the customer's payment authorization is granted.
- Include instructions for revoking the authorization.

Types of Authorizations

Partial Authorizations

When the balance on a debit card or prepaid card is less than the requested authorization amount, the issuing bank can approve a partial amount. You can accept multiple forms of payment for the order starting with some or all of the approved amount followed by one or more different payment methods.

Partial authorizations can occur for prepaid cards and debit cards when you create a subscription with a setup fee or with a one-time payment.

Preauthorizations

Note	For PINless debits, preauthorizations are not supported. Instead, you must validate the card before you create the subscription: ■ In the Business Center, open the New Subscription page in the Payment Information section, click **Validate**. ■ Using a CyberSource API, request the PINless debit validate service, which is described in the *PINless Debit Card Services Implementation Guide*.

Note	If you are creating a subscription or customer profile by using existing transaction information, your customer's account information has already been validated.

Note	Partial authorizations are not possible when an account is automatically preauthorized. For more information about partial authorizations, see "Types of Authorizations," page 24.

Charging a setup fee validates your customer's account information. See "Charging a Setup Fee," page 28. If you do not charge your customer a setup fee when you create a customer profile or subscription, you can arrange for CyberSource to validate the customer's account information before you create the customer profile or subscription. CyberSource validates a customer's account by attempting to preauthorize it. If the preauthorization fails, the customer profile or subscription cannot be created. Contact your merchant account provider to determine whether you will be charged a fee for preauthorization.

When you configure your customer's account for automatic preauthorizations, CyberSource automatically runs several fraud checks during a preauthorization depending on the payment method for the new customer subscription. See "Working with Fraud Checks," page 28.

Supported Processors for Credit Cards

For credit cards, automatic preauthorizations and manual preauthorizations are supported for all processors for which subscription or profile-based credit card payments are supported. These processors are listed in "Credit Cards," page 12.

For Visa cards with the following processors, the preauthorization amount is $0:

- Chase Paymentech Solutions
- FDC Nashville Global
- FDMS South—Visa does not support recurring billing using the Canadian dollar currency.
- GPN
- Litle
- RBS WorldPay Atlanta
- TSYS Acquiring Solutions

For American Express Direct, the preauthorization amount is $0. For all other card types and processors, the preauthorization amount is $1. For currencies other than USD, the preauthorization is for one unit of currency.

Supported Processors for Electronic Checks

TeleCheck supports automatic preauthorizations and manual preauthorizations. If you use a different electronic check processor, CyberSource recommends that you validate a customer's account information yourself before creating a customer profile or subscription that uses the account.

The preauthorization amount is $1. For currencies other than USD, the preauthorization amount is for one unit of currency.

Automatic Preauthorizations

You must configure your account for this feature as described in "Configuring Your Account for Automatic Preauthorizations," page 27. After your account is configured, you can:

- Automatically preauthorize a credit card account when you create a customer subscription that uses new credit card information.

- Automatically preauthorize a bank account when you create a customer subscription that uses new electronic check information.

You cannot automatically preauthorize an account when you convert an existing transaction to a customer subscription.

CyberSource does not charge you for automatically preauthorized transactions.

Note	Partial authorizations for prepaid cards and debit cards cannot be performed for automatic preauthorizations. For more information about partial authorizations, see "Types of Authorizations," page 24.

Note	Offline credit cards, which are available with Global Collect, work differently than online cards. Because the authorization is not online, it does not validate the account information. You will not know if the account information is valid until the first payment is processed.

Manual Preauthorizations

You can manually preauthorize a customer's account when you create a customer profile that uses new account information:

- *Credit cards*—Request the **paySubscriptionCreateService** service, and at the same time request the **ccAuthService** service for $0 or a small amount.

    If your processor supports full authorization reversals and you charged more than $0 for the preauthorization, CyberSource recommends that you subsequently request a full authorization reversal.

    For more information about the **paySubscriptionCreateService** service, see "Creating a Customer Subscription," page 15. For information about **ccAuthService**, see *Credit Card Services with the Simple Order API*.

- *Electronic checks*—Request the **paySubscriptionCreateService** service and, at the same time, request the **ecDebitService** service with the **ecDebitService_paymentMode** field set to 1.

    For information about the **paySubscriptionCreateService** service, see "Creating a Customer Subscription," page 15. For more information about the **ecDebitService** service, see the *Electronic Checks Implementation Guide for the Simple Order API*.

Automatic Preauthorization Reversal

With the exception of TSYS Acquiring Solutions, if your credit card processor supports full authorization reversal, you can contact Customer Support to configure your account so that CyberSource automatically reverses the preauthorizations. CyberSource does not charge you for automatically reversing preauthorizations. If a customer profile creation fails for any reason or if the preauthorization amount is $0, CyberSource does not reverse the preauthorization.

When you create a customer profile with automatic preauthorizations and automatic preauthorization reversals, the order of services is:

1   Credit card authorization service for the preauthorization.

2   Subscription creation service—only if the authorization is successful.

3   Full authorization reversal service—only if the authorization is successful and the preauthorization amount is not $0.

> **Note**   With any credit card processor, you can manually reverse the preauthorization.

Configuring Your Account for Automatic Preauthorizations

The steps for configuring your account for automatic preauthorizations depend on which CyberSource connection method you are using. First, you must enable automatic preauthorizations for all of the connection methods. Then, if you want to, you can:

■   Disable it for all subscriptions that you create with the Hosted Order Page or Silent Order POST

■   Disable it for a subscription when you create it with a CyberSource API

To enable automatic preauthorizations:

Step 1   In the Business Center, navigate to the Subscription Settings page.

Step 2   In the Subscription Processing Options section at the top of the page, check the box for **Perform an automatic preauthorization before creating subscriptions**.

All subscriptions and customer profiles that you create with any of the connection methods will use automatic preauthorizations.

If full authorization reversal is supported for your processor, you can enable automatic preauthorization reversals by contacting Customer Support to configure your account.

To disable automatic preauthorizations when you create a customer profile with the Simple Order API, use the **paySubscriptionCreateService_disableAutoAuth** field when you request **paySubscriptionCreateService**. See "Creating a Customer Subscription," page 15.

Working with Fraud Checks

For PINless debits, preauthorizations are not supported. Instead, you must validate the card before you create the subscription:

1   In the Business Center, open the New Subscription page. in the **Payment Information** section, click **Validate**.

2   Using a CyberSource API, request the PINless debit validate service, which is described in the *PINless Debit Card Services Implementation Guide*.

If you configure your account to use automatic preauthorizations, CyberSource automatically runs several fraud checks during a preauthorization depending on the payment method for the new subscription or customer profile:

■   AVS—Credit cards only

■   CVN—Credit cards only

■   Decision Manager—Credit cards and electronic checks

> **Note**
> For information about preauthorizations, see "Preauthorizations," page 24.

Charging a Setup Fee

> **Note**
> You cannot charge a setup fee when using preauthorizations, which are described in "Preauthorizations," page 24.

> **Note**
> If you charge a setup fee when creating a profile for a debit card or prepaid card, you can enable partial authorizations for the setup fee. If the issuing bank approves a partial amount for the setup fee, the subscription or profile will not be created. Therefore, CyberSource recommends that you do not enable partial authorizations for setup fees. For more information about partial authorizations, see "Types of Authorizations," page 24.

The amount that you specify as the setup fee is immediately charged to the customer. However, for an installment or recurring subscription, the scheduled payments do not start until your specified start date. The setup fee is not required to be the same amount as the installment or recurring payment amount.

Setup Fees and New Account Information

When creating a customer subscription with new account information, the Simple Order API supports setup fees for customer subscriptions:

- Credit cards—Request the **paySubscriptionCreateService** service, the **ccAuthService** service, and the **ccCaptureService** service at the same time. Use either the **item_0_unitPrice** field or the **purchaseTotals_grandTotalAmount** field to specify the setup fee.

   For more information about the **paySubscriptionCreateService** service, see "Creating a Customer Subscription," page 15. For more information about the **ccAuthService** service and the **ccCaptureService** service, see *Credit Card Services with the Simple Order API*.

Note	You can choose to request the **paySubscriptionCreateService** service and the **ccAuthService** service at the same time and then capture the authorization later.

Important	If you try to create a credit card customer subscription with a setup fee, and Decision Manager places the setup fee request in your review queue, the customer subscription is not be created. If you use Decision Manager and want to charge a setup fee, CyberSource recommends that you process the setup fee separately and then create the customer profile after the setup fee is successfully processed.

- Electronic checks—Request the **paySubscriptionCreateService** service and the **ecDebitService** service at the same time. Use either the **item_0_unitPrice** field or the **purchaseTotals_grandTotalAmount** field to specify the setup fee.

   For more information about the **paySubscriptionCreateService** service, see "Creating a Customer Subscription," page 15. For more information about the **ecDebitService** service, see *Electronic Check Services for the Simple Order API*.

Important	If you try to create a credit card customer subscription with a setup fee, and Decision Manager places the setup fee request in your review queue, the customer subscription is not be created. If you use Decision Manager and want to charge a setup fee, CyberSource recommends that you process the setup fee separately and then create the customer profile after the setup fee is successfully processed.

■ PINless debits—Setup fees are not supported for PINless debits.

Setup Fees and Existing Account Information

When you create a subscription with existing transaction information, the Simple Order API supports setup fees for credit card subscriptions, but not for other payment methods.

In your **paySubscriptionCreateService** service request, set the **paySubscriptionCreateService_paymentRequestID** field to the request ID from the transaction reply. Request the **ccAuthService** service and the **ccCaptureService** service at the same time. Use either the **item_0_unitPrice** field or the **purchaseTotals_ grandTotalAmount** field to specify the setup fee.

For more information about the **paySubscriptionCreateService** service, see "Creating a Customer Subscription," page 15. For information about the **ccAuthService** service and the **ccCaptureService** service, see *Credit Card Services Using the Simple Order API*.

Note	You can choose to request the **paySubscriptionCreateService** service and the **ccAuthService** service at the same time and then capture the authorization later.

Important	If you try to create a credit card customer subscription with a setup fee, and Decision Manager places the setup fee request in your review queue, the customer subscription is not be created. If you use Decision Manager and want to charge a setup fee, CyberSource recommends that you process the setup fee separately and then create the customer profile after the setup fee is successfully processed.

Flagging Payments for Visa Bill Payment Program

Customers can use their Visa cards to pay bills, such as monthly utility bills. When you participate in the Visa Bill Payment program, Visa requests that you flag the bill payments and credits so that they can be easily identified.

You can add this flag when you create a subscription or customer profile in the Business Center or with a CyberSource API. All regularly scheduled or one-time payments and credits associated with the subscription or customer profile are flagged as part of the Visa Bill Payment program. If a subscription does not have the flag associated with it, you can still flag a one-time payment or credit for that subscription or customer profile.

When creating a subscription, set the **recurringSubscriptionInfo_billPayment** field to **true** in the request. This value is case sensitive.

For a one-time payment, set the **ccAuthService_billPayment** field to **true** in the authorization request. This value is case sensitive.

For a one-time credit, set the **ccCreditService_billPayment** field to **true** in the credit request. This value is case sensitive.

For more information about the Visa Bill Payment program and the processors that support it, see Credit Card Services Using the Simple Order API.

Optional Storage Data

There are two kinds of data storage fields that you can include in any customer subscription regardless of payment method. You can put any kind of data in the encrypted fields because CyberSource encrypts the data. There are legal limitations on the kind of data that you can put in the unencrypted fields because CyberSource does not encrypt this data.

To create a subscription for the sole purpose of storing data, use the "other" payment method. See "Other (Data Storage)," page 14.

⚡ **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, 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.

The encrypted fields are:

- **merchantSecureData_field1**.
- **merchantSecureData_field2**.
- **merchantSecureData_field3**.
- **merchantSecureData_field4**.

CyberSource encrypts this data before storing it in the database. The only validation performed on these fields is a size check. The first three fields are string(100) and the fourth field is string(2K).

The unencrypted fields are:

- **merchantDefinedData_field1**.
- **merchantDefinedData_field2**.
- **merchantDefinedData_field3**.
- **merchantDefinedData_field4**.

CyberSource does not encrypt this data before storing it in the database.

> **Note**
>
> If you are creating a subscription based on an existing transaction, the merchant-defined data fields do not get transferred to the new customer profile.

Start Date for Payments

> **Note**
>
> This feature is available only for installment and recurring subscriptions.

The start date is the date on which your customer is billed for the first time. The first valid day possible is the next day (tomorrow). The start date cannot be the same as the date you create the subscription (today).

Days and dates are in Pacific Time, which is either Pacific Standard Time or Pacific Daylight Savings Time depending on the time of year. Each day ends at 23:59:59 Pacific Time. To create a subscription with a start date of tomorrow, you must finish creating the subscription by 23:59:59 Pacific Time today.

Trial Period

You can offer your customers a free trial period. For example, you might have a 30-day trial for a product that is charged weekly. By setting the start date of the payments in an installment or recurring subscription to 30 days from the day that the subscription is created, you create the subscription immediately, and the customer receives the product immediately, but the payments do not start until the specified start date.

You have the following choices for the start date:

- If you do not set the start date field, the start date defaults to tomorrow.

- If you set the start date field to today's date or a date in the past, the start date is tomorrow.

- If you set the start date field to a date in the future, the start date is the date you specified.

Set the start date in the **recurringSubscriptionInfo_startDate** field.

Disabling Automatic Renewal

For installment and recurring subscriptions, you can specify that payments are automatically restarted when the last payment has been made. Except for the Business Center, the default is automatic renewal if you do not specify otherwise because the CyberSource subscription system was originally designed for recurring payments. For the Business Center, the default is for automatic renewal to be turned off.

 to If you are creating an installment subscription and do not want the payment schedule to be automatically renewed, you must set the **recurringSubscriptionInfo_automaticRenew** field to `false` when you create the subscription.

⚠️ **Warning**	If you do not set the **recurringSubscriptionInfo_automaticRenew** field to false for an installment subscription, CyberSource will continue to bill the customer after all installment payments have been collected.

Automatic Payments or Payments Requiring Approval

Note

This feature is available only for installment and recurring subscriptions, not for on-demand profiles.

Automatic Payments

CyberSource automatically processes the subscription payments according to the schedule without requiring any action on your part.

Payments Requiring Approval

When you create a subscription, you can require that each payment be approved first by someone in your company before CyberSource processes it.

Switching Between Payments Requiring Approval and Automatic Payments

You can switch a subscription between payments requiring approval and automatic payments.

By default, the Simple Order API creates subscriptions that use automatic payments. To create a subscription that uses payments requiring approval, set the **recurringSubscriptionInfo_approvalRequired** field to true in the create subscription request. See "Creating a Customer Subscription," page 15.

Replacement Expiration Dates

Note

This feature is available only for installment and recurring subscriptions.

Note

This feature is available only for Visa and MasterCard on Chase Paymentech Solutions, FDC Compass, and FDMS South.

Contact CyberSource Customer Support to configure your account so that when a credit card's expiration date passes, CyberSource automatically uses a replacement expiration date to process payments for that customer profile or subscription.

Working with Subscriptions

Searching for and Viewing a Subscription

Step 1   In the navigation pane, choose **Recurring Billing** > **Search**. The **Subscription Search** page opens.

Subscription Search

When searching for subscriptions, you can narrow your search to active, on hold, or canceled subscriptions, date of creation or of expiration, card expiration date, or a specific field or value. When searching for future payment events, you can narrow your search to payments that are scheduled, require approval, or have been skipped. When you submit your search criteria, the Subscription Search Results page opens.

Search Results

The Subscription Search Results page provides all the basic information about each subscription that you found. You can export these results in XML or CSV format, which can then be imported into a spreadsheet. Instructions are available in the online help.

On the Subscription Search Results page, you can click a subscription ID to see view transaction details for that customer subscription.

> ⚠️ **Important**
>
> If your account is configured to use a 16-digit format-preserving subscription ID, when you update the card account number with a new card account number you receive a new subscription ID.
>
> The status of the previous subscription ID changes to *superseded*. Both the previous subscription ID, which is the superseded subscription ID, and the new subscription ID are displayed in the Subscription Details page.

Transaction Details

■ *Encrypted Data*—The phrase *value stored* is displayed for each encrypted data field that contains data. If an encrypted data field does not contain data, the word *empty* is displayed.

	The Business Center does not display encrypted data. To view the encrypted data, use the CyberSource API to retrieve it as described in "Retrieving a Customer Subscription," page 37.
Note	

■ *Payment History*—In this section, you can select a specific payment that has already been processed and view its transaction details.

■ *Scheduled Payments*—In this section, you can skip a scheduled payment. For information about skipping and unskipping payments, see "Preauthorizations," page 24.

Searching for and Viewing an Individual Payment

Step 1   In the navigation pane, click **Recurring Billing > Search**. The Subscription Search page opens.

Step 2   In the Type drop-down list, choose **Subscription Payments**.

You can search for:

■ Payments that are scheduled to take place within the date range that you specify.

The search results include only the payments that you have not skipped. This search is useful when you want to skip, approve, or change the amount of one or more payments.

■ Payments that are waiting for your approval and have a scheduled payment date within the date range that you specify.

This search is useful when you want to approve or change the amount of one or more payments. For information on approving payments, see "Approving or Changing Individual Payments," page 41.

■ Payments that you have already skipped and that have a scheduled payment date within the date range that you specify.

This search is useful when you want to unskip one or more payments. You can also change the amount when you unskip the payment.

■ Payments that have a specific value for a parameter that you choose in the Field drop-down list.

The search results include only the payments that you have not skipped.

The Subscription Payment Search Results page provides all the basic information about each payment that was found. You can export these results in XML or CSV format, which you can then import into a spreadsheet. Instructions are available in the online help.

On the Subscription Payment Search Results page, you can:

- Change the amount of one or more payments.
- Skip, unskip, or approve payments. You cannot skip or unskip and approve a payment at the same time.
- Click a subscription ID to see the subscription details for that payment.

Retrieving a Customer Subscription

To retrieve the customer subscription information:

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

Step 2   Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **recurringSubscriptionInfo_subscriptionID**

See Appendix A, "API Fields," on page 95 for detailed descriptions of the request and reply fields.

Updating a Customer Subscription

In the Business Center, you can update groups of customer subscriptions. Using the CyberSource APIs, you can update an individual subscription only, not groups of subscriptions.

You can change most of the information in a subscription, except:

- Merchant reference number
- Subscription ID
- Frequency (payment period)
- Setup fee

■   Start date

> ⚠️ **Important**
>
> You cannot change the payment method to or from "other" because this payment method is for storage only, not for transactions.

To update a customer subscription:

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

Step 2   Include the following fields in the request:

■   **merchantID**

■   **merchantReferenceCode**

■   **recurringSubscriptionInfo_subscriptionID**

Additional fields are required depending on the update you are making. To see which fields are optional and for descriptions of required and optional fields, see Appendix A, "API Fields," on page 95.

To update a specific payment, when you request the **paySubscriptionEventUpdateService service** you must include these fields:

■   **merchantID**

■   **merchantReferenceCode**

■   **recurringSubscriptionInfo_subscriptionID**

■   **recurringSubscriptionInfo_event_amount**

Additional fields are required depending on the update you are making. To see which fields are optional and for descriptions of required and optional fields, see Appendix A, "API Fields," on page 95.

Changing an Account Number

If your account is configured to use a 16-digit format-preserving subscription ID, when you update the card account number with a new card account number you receive a new subscription ID. This new subscription ID is created if the last four digits of the new card number are different from the last four digits of the previous card number. Otherwise no new subscription ID is created.

> ⚠️ **Important**
>
> Update your subscription ID storage systems with the new subscription ID; otherwise all transactions are declined if you are using a customer subscription with a status of superseded.

When a new subscription ID is created for the customer subscription, the status of the customer subscription changes to *superseded*. The new customer subscription uses a 16-digit subscription ID. You can view the status of a subscription ID in the Subscription Search Results page in the Business Center. Both the superseded subscription ID and the new subscription ID are displayed in the Subscription Details page.

Set the relevant account number field when you request the **paySubscriptionUpdateService** service:

- Credit card accounts and PINless debit accounts—Include the **card_accountNumber** field.

- Electronic check accounts—Include the **check_accountNumber** field.

When you use the Simple Order API to change the account number for a customer profile, validate the new account information:

- Credit card account or electronic check account—Perform a manual preauthorization as described in "Manual Preauthorizations," page 26.

- PINless debit account—Request the PINless debit validate service, see *PINless Debit Card Services Implementation Guide.*

Adding, Skipping, or Unskipping Payments

Note	This feature is available only for installment and recurring subscriptions, not for on-demand subscriptions.

You cannot delete payments from an installment or recurring subscription. Instead, you can skip individual payments that you do not want to occur, or you can cancel all the payments for a subscription as described in "Cancelling Subscription Payments," page 42.

If you skip a payment, it automatically becomes unapproved. For information about approving payments, see "Automatic Payments or Payments Requiring Approval," page 40 and "Approving or Changing Individual Payments," page 41.

You can also unskip a payment that you have previously skipped, as long as the payment date is still in the future.

Important	You can add payments to installment subscriptions only.

To add a payment:

Step 1   Request the **paySubscriptionUpdateService** service**.** See "Updating a Customer Subscription," page 37.

Step 2   Include the **recurringSubscriptionInfo_numberOfPaymentsToAdd** field in the request.

To skip a payment:

Step 1   Request the **paySubscriptionEventUpdateService** service. See "Updating a Customer Subscription," page 37.

Step 2   Include the **paySubscriptionEventUpdateService_action** field. Set to skip.

To unskip a payment:

Step 1   Request the **paySubscriptionEventUpdateService** service. See "Updating a Customer Subscription," page 37.

Step 2   Include the **paySubscriptionEventUpdateService_action** field. Set to unskip.

Automatic Payments or Payments Requiring Approval

> **Note**   This feature is available only for installment and recurring subscriptions, not for on-demand subscriptions.

For a description of automatic payments and payments requiring approval, see "Automatic Payments or Payments Requiring Approval," page 34.

If a subscription has payments requiring approval and you have already approved some of the payments, the approval for those payments is removed from the database if you switch the subscription to automatic payments. If you then switch the subscription back to payments requiring approval, those previously approved payments are no longer approved and you must approve them again.

To change a subscription from automatic payments to approval-required payments or the reverse, set the **recurringSubscriptionInfo_approvalRequired** field when you update the subscription. See "Updating a Customer Subscription," page 37.

Approving or Changing Individual Payments

Note	This feature is available only for installment and recurring subscriptions, not for on-demand subscriptions.

If you change the amount associated with a subscription, the amounts for all future payments are reset to this new amount. Even if you previously updated an individual upcoming payment with a specific amount, that amount is reset to the new amount.

For a subscription that requires approval before the transaction is processed, if you change the amount associated with the subscription, all future payments are reset to "unapproved" regardless of whether the payments were already approved before you updated the amount.

To change the payment amount:

Step 1   Request **paySubscriptionEventUpdateService** service. See "Updating a Customer Subscription," page 37

Step 2   Include the **recurringSubscriptionInfo_event_amount** field in the request.

To approve or unapprove a payment:

Step 1   Request the **paySubscriptionEventUpdateService** service. See "Updating a Customer Subscription," page 37.

Step 2   Include the **recurringSubscriptionInfo_event_approvedBy** field and the **paySubscriptionEventUpdateService_action** field—set to approve or unapprove.

Note	The value for the **recurringSubscriptionInfo_event_approvedBy** field is stored in the database as the name of the person who approved the payment. If you subsequently unapprove the payment, this value is removed from the database.

Cancelling Subscription Payments

> **Note**
> This feature is available only for installment and recurring subscriptions, not for on-demand subscriptions.

This section describes how to cancel all the payments for a subscription. To cancel only one payment, see "Preauthorizations," page 24.

To cancel a payment:

Step 1   Request the **paySubscriptionUpdateService_run** service. See "Updating a Customer Subscription," page 37

Step 2   Include the **recurringSubscriptionInfo_status** field in the request. Set to cancel.

Requesting an On-Demand Payment or Credit

> **Important**
> You cannot process an independent payment or credit using a customer subscription that has a status of superseded. The superseded customer subscription cannot be modified, deleted, or cancelled. You can retrieve details of a superseded customer subscription and view any payment events. All payments or credits requested are applied to the new customer subscription. On-demand transactions are displayed in the History section on the Subscription Transaction Details page for six months.

You can use a subscription to process an independent payment or credit. The on-demand transactions you can request are:

- For credit cards—authorization, sale, credit

> **Note**
> To enable partial authorizations for on-demand authorizations or sales, use the CyberSource API. For more information about partial authorizations, see "Types of Authorizations," page 24.

- For electronic checks—debit, credit

Note   On-demand transactions are displayed in the History section on the Subscription Transaction Details page for six months.

- For PINless debits—debit

You can use a PINless debit customer subscription to request a credit card transaction. See "One-Time Credit Card Transaction Using a PINless Debit Customer Subscription," page 44.

To request an on-demand payment:

Step 1   Request the relevant service or services.

Step 2   Include the **recurringSubscriptionInfo_subscriptionID** field in the request.

All the information stored in the customer profile will be used for the transaction. You can override some of the customer profile information by including the relevant API fields in your request.

When you use a customer subscription to request an on-demand transaction, the required fields are:

- **merchantID**
- **merchantReferenceCode**
- **purchaseTotals_currency**

▪ **item_0_unitPrice** or **purchaseTotals_grandTotalAmount**

	You can include Level II and Level III fields to record specific additional information when your customers use purchasing cards for business-related expenses. This data is forwarded to the company that made the purchase so that the company can manage its purchasing activities. Companies use this information to streamline accounting processes and to merge payment data with finance and procurement systems. Before accepting this data, make sure that you can process it correctly. Each processor supports different sets of Level II and Level III fields. If you submit a Level II or Level III transaction but omit required fields, your processor could charge you penalties or increase your fees. To find out if you can or should use these fields, see the Business Center User's Guide. To indicate that a request contains Level II or Level III data, include **ccCaptureService_purchasingLevel** for captures or **ccCreditService_ purchasingLevel** for credits. Set the field value to 2 for Level II data or 3 for Level III data.
Note	

	You can link an on-demand payment request to a previous authorization request for a debit card or prepaid card. This strategy is useful when using multiple payment methods to complete an order. To link an on-demand payment request to an authorization request, include the **linkToRequest** field in your request. For more information, see "Types of Authorizations," page 24.
Note	

One-Time Credit Card Transaction Using a PINless Debit Customer Subscription

Most debit cards are branded with Visa or MasterCard. Therefore, most PINless debit cards can be used as credit cards. This flexibility enables you to use a PINless debit subscription to perform a credit card transaction. To do so, use one of the APIs and include the subscription ID in your authorization or sale request. The card's expiration date and card type are required for the credit card services, so if the PINless debit customer subscription does not include this information, you must provide it in the authorization request.

Using Account Updater

CyberSource Account Updater is integrated with the Recurring Billing functionality so that your stored subscriptions can be kept up to date with the latest credit card data changes. These changes can include a new expiration date, a new credit card number, or a brand flip such as a flip from Visa to MasterCard.

> ⚠️
> **Important**
>
> You must comply with the Account Updater Terms of Use. See the "Terms of Use" section in the *Account Updater User Guide*.

How It Works

You must enroll in the Visa Account Updater program or the MasterCard Automatic Billing Updater program (or both) before you can use CyberSource Account Updater. Contact your account representative to enroll in Account Updater. CyberSource submits enrollment forms on your behalf to both MasterCard and Visa. The enrollment process can take up to 10 business days.

After your enrollment forms are processed, CyberSource:

- Configures your account to automatically update your customer subscriptions with updated credit card data.
- Updates your customer subscriptions once each month.
- Requests updates only for customer subscriptions that are in the "active" or "on-hold" state. Updates for customer subscriptions in the "completed" or "cancelled" state are not requested.

If you prefer to have your customer subscriptions updated on a particular day of the month to coincide with your billing cycle, contact Customer Support to make this request. It is best practice to request updates for your customer subscriptions 3 to 5 days before your billing cycle begins. You can choose any calendar day 1 through 28.

Viewing the Status of Your Updates

Use the Business Center to view the status of your Account Updater updates. Click **Credit Card Account Updater** and then **Status**. Search by date. The next two figures show the Account Updater Status Search and Account Updater Status Results pages.

Figure 1   Account Updater Search

Account Updater Status Search

Page help   Page feedback

Options

○ Search by Batch ID

Value [   ]

◉ Search by Date

Date Range [Last month   ▼]

View Options

Results per page [50 ▼]

Sort order [Latest results first   ▼]

[Search]

Figure 2   Account Updater Results

Account Updater Status Results

Page help   Page feedback

Batch ID	Date of Request	Status	Origin	Records In Request
197713050006	May 14 2009 06:49:59 AM	Declined	File Upload	2
1976120509003	May 12 2009 06:42:01 AM	Processing	File Upload	3
1976120509002	May 12 2009 03:17:01 AM	Processing	File Upload	3
1976120509001	May 12 2009 01:31:04 AM	Processing	File Upload	3
1976080509002	May 08 2009 03:56:55 AM	Validated	File Upload	3
1976080509001	May 08 2009 01:23:04 AM	Received	File Upload	3
2966002	May 07 2009 07:12:27 AM	Validated	File Upload	7
1976070509004	May 07 2009 03:51:39 AM	Received	File Upload	3
1976070509003	May 07 2009 03:51:18 AM	Received	File Upload	3
2966001	May 07 2009 03:42:11 AM	Validated	File Upload	7

Reporting

From 24 to 48 hours of your scheduled customer subscription update, an Account Updater Profile Update Report will be available for download. You can download the report from the Business Center or through a query API or a client application.

Downloading a Report from the Business Center

A batch with a status of "Complete" can be downloaded in the **Report Search** section of the Business Center.

To download a report:

Step 1 Log into the Business Center.

Step 2 In the left navigation area, choose **Reports** > **Report Search**.

The Report Search window is displayed.

Step 3 From the Report drop-down list, choose **All**.

Step 4 From the Frequency drop-down list, choose **Daily**.

Step 5 Choose the day your reports were processed.

Step 6 Click **Submit**.

The report will be listed in the Downloadable Reports table.

Step 7 Click the **Download** link next to your report.

Depending on your browser settings, the report either opens in your browser window or you are prompted to save the file.

Requesting a Report with a Client Application

To connect to the report server, your client application must support HTTPS connections. An HTTPS connection is similar to an HTTP connection, but it is encrypted using Secure Sockets Layer (SSL). Your client application must support

- HTTP/1.0 or HTTP/1.1
- SSL v2 or SSL v3 connections

HTTPS libraries are available for many programming languages, including Java, C/C++, Perl, and Visual Basic. You can implement a client in any language that allows you to use HTTPS to communicate with the report server. Your client application must use Basic Access Authentication to send the user name and password. Many HTTPS client libraries implement this authentication method. For information about Basic Access Authentication, see http://www.ietf.org/rfc/rfc2617.txt

To send an API request with an HTML form or any script, use this URL:
https:// ebc.cybersource.com/ebc/DownloadReports

Format Requirements

To request a report, your client application must send an HTTP GET message to the report server. The URL that you specify in your message indicates which report to download. Use this URL format for the request:

```
https://<server_name>/DownloadReport/YYYY/MM/DD/<merchant_ID>/
<report_name>.<report_format>
```

Value	Description
`<server_name>`	Name of the server from which to download the report. Possible values: ■ `ebctest.cybersource.com/ebctest:` Test server ■ `ebc.cybersource.com/ebc:` Production server ■ `downloadreportstest.cybersource.com:` Test reports server ■ `downloadreports.cybersource.com:` Production reports server
`YYYY`	Four-digit year
`MM`	Two-digit month
`DD`	Two-digit day
`<merchant_id>`	Your CyberSource merchant ID
`<report_name>`	Name of the report to download. Possible value: `merchantID.batchID.au.response.ss`
`<report_format>`	Report format. Possible value: `csv`

Records in the Account Updater Profile Update Report

Order	Field Name	Description	Maximum Size
1	Record Identifier	Constant value indicating the record type. Format: `H`	1
2	File Classification	Indicates file type. Format: `cybs.au.response.ss`	30
3	Merchant ID	CyberSource Merchant ID. Format: Alphanumeric	30
4	Batch ID	Unique identifier for the batch, generated by CyberSource. Format: Numeric	30

Order	Field Name	Description	Maximum Size
1	Record Identifier	Constant value indicating the record type. Format: D	1
2	Account Updater Request ID	Unique CyberSource identifier for the record. Format: Numeric	30
3	Subscription ID	The value that identifies the subscription. CyberSource returned this value when the subscription was created. Format: Numeric	16 or 22
4	New Card Number	New card number with 8 digits masked. Format: Alphanumeric If no new cardnumber is available, this field will be populated with the current card number.	19
5	Response Code	Return code for the record. * Customer subscriptions with a response code of ACL will be moved to a "cancelled" state. Format: Alphabetic	3
6	Reason Code	Reason code for the record. * Format: Numeric	3
7	Old Card Number	Old card number with 8 digits masked. Format: Alphanumeric	19
8	Old Card Expiry Month	Expiration month of the old card. Format: MM	2
9	Old Card Expiry Year	Expiration year of the old card. Format: yy	2
10	New Card Expiry Month	Expiration date of the new card. Format: MM	2
11	New Card Expiry Year	Expiration year of the new card. Format: yy	2
12	New Subscription ID	The new value that identifies the customer subscription. This supersedes the previous subscription ID. CyberSource returned this value when the subscription was updated. Format: Numeric	16

* See the "Record Level Response Codes" and "Record Level Reason Codes" sections in the *Account Updater User Guide*.

Order	Field Name	Description	Maximum Size
1	Record Identifier	Constant value indicating the record type. Format: `F`	**1**
2	Record Count	The number of detail records in the file. Format: Numeric	
3	Response Code	Indicates the overall response. * Format: Alphabetic Possible values: `DEC:` Declined `COM:` Completed	**3**
4	Reason Code	Indicates the overall reason for the response code*. Format: Numeric	**3**

* See the "Request File Level Response Codes" and "Request File Level Reason Codes" sections in the *Account Updater User Guide*.

Setting Up Email Notifications

Note This feature is available only for installment and recurring subscriptions.

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

Table 2   Types of Email Notifications

Type of Notification	Description
Pre-processing notification message	Informs the customer about an upcoming payment. This message is sent seven days before CyberSource processes the payment.
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 about 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. See "Handling Exceptions," page 54 for reasons that a subscription can go on hold.

To set up the email notifications to be sent to you, contact Customer Support when you set up your subscription options.

To set up the email notifications to be sent to your customers, you have a choice:

- Discuss it with Customer Support when you set up your subscription options.
- Configure this feature on the Subscription Settings page in the Business Center.

Custom Content

Each type of email message consists of a header, a body, and a footer. You can either use the default content for these sections or specify custom content. The default content is shown in "Default Content," page 52.

To customize the content of your email messages, use the Subscription Settings page in the Business Center. On this page, you can:

- Enable and disable the types of email messages sent to your customers.
- Customize the content of the emails.

You can update these features at any time.

Note   CyberSource recommends that you test all email notifications to make sure that the content and formatting appear as desired.

Email Parameters

The email notifications include parameters for inserting specific information about the subscription. You can use the parameters in your custom content for the various sections of the message. The following table describes the parameters.

Table 3   Email Parameters

Parameter Name	Description
##AMOUNT##	The amount of the payment.
##COMMENTS##	Any comments that you included when creating the subscription.
##CUSTOMER_ACCOUNT_ID##	The identifier that you use to identify the customer.
##CUSTOMER_FIRST_NAME##	The customer's first name.
##CUSTOMER_LAST_NAME##	The customer's last name
##ACCOUNT_NUMBER_LAST_DIGITS##	The credit card or bank account number with all but the last four digits masked.
##MERCHANT_NAME##	Your business name.

Table 3   Email Parameters (Continued)

Parameter Name	Description
##ORDER_NUMBER##	The merchant reference code (order number) that you assigned to the subscription.
##PAYMENT_DATE##	The date that a successful payment or failed payment attempt was processed.
##TITLE##	The title of the subscription.

Default Content

The templates and examples in this section illustrate the default content that CyberSource provides for each type of email message. Each template is followed by an example. In each example, the optional header and footer are in bold.

Successful Payment

Figure 3   Template for a Successful Payment Notification

```
Subject: Your Account Has Been Billed by ##MERCHANT_NAME##

<MERCHANT 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##

<MERCHANT FOOTER>
```

Example   Successful Payment Notification

```
Subject: Your Account Has Been Billed by Sam's Hot Sauce World
Sam at Sam's Hot Sauce World would like to thank you for your most recent
payment for the "Hot Sauces From Around the World" program.
Dear Joe Smith,
A payment has been charged to your account:
Order Number: 440392849
For: Hot Sauces From Around the World
On: June 30, 2010
Amount: 19.99
Account: xxxxxxxxxxxx1111
Thank you for your continued patronage. If you have any questions, please
visit us at www.hotsaucesfromsam.com or call us at 650-555-1234.
Sam's Hot Sauce World
```

Failed Payment

Figure 4   Template for a Failed Payment Notification

```
Subject: ##MERCHANT_NAME## Had a Problem Billing Your Account


<MERCHANT HEADER>


Dear ##CUSTOMER_FIRST_NAME## ##CUSTOMER_LAST_NAME##,


Order Number: ##ORDER_NUMBER##
For: ##TITLE##
On: ##PAYMENT_DATE##
Amount: ##AMOUNT##
Account: ##ACCOUNT_NUMBER_LAST_DIGITS##


<MERCHANT FOOTER>
```

Example   Failed Payment Notification

```
Subject: Sam's Hot Sauce World Had a Problem Billing Your Account
Unfortunately, your automatic payment was declined by your bank or credit
card company. Your payment is now past due. Please contact us to make
your payment. Have the information below on hand.
Dear Joe Smith,
Order Number: 440392849
For: Hot Sauces From Around the World
On: June 30, 2010
Amount: 19.99
Account: xxxxxxxxxxxx1111
Please contact us at 650-555-1234 to make your payment. Thank you!
Sam's Hot Sauce World
```

Handling Exceptions

> **Note** These features are available only for installment and recurring subscriptions, not for on-demand profiles.

Automatic Retries and Automatic Holds

If a scheduled payment using a credit card fails for a reason that does not obviously require your intervention, CyberSource automatically tries to collect the payment again. While CyberSource is retrying to process the payment, the subscription is in retry mode. After all possible retries are exhausted, CyberSource puts the subscription on hold.

> **Note** Automatic retry does not apply to electronic checks because check processing typically includes retrying if a payment fails. Automatic retry does not apply to PINless debits.

The Subscription Payment Exception Report provides information about installment and recurring subscriptions that are:

- On hold and need your immediate attention.
- In retry mode and likely to go on hold soon.

You can view and download the report daily and weekly from the Reports area on the Business Center. To receive the report, you must subscribe to it on the Business Center. You must have administrator privileges to subscribe to the report. To subscribe to the report, go to the **Report Subscriptions** page in the **Account Management** area on the Business Center.

The Subscription Payment Exception Report includes two lists:

- Corrective Action (On Hold)—Subscriptions in this 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 intervention, such as an expired credit card.

> **Note** You cannot manually place a subscription on hold. Subscriptions automatically go on hold only because of payment failure.

> **Note** A subscription remains on hold until you take corrective action. CyberSource does not automatically cancel a subscription that is on hold.

■ Retry Mode—Subscriptions in this list are in retry mode because CyberSource is attempting to process payments that have failed.

The following table lists some of the reasons that a subscription can be put on hold without retry attempts. This list is not exhaustive and is subject to change.

Table 4   Failures that Place a Subscription on Hold Without Retries

Simple Order API Reason Code	SCMP API Reply Flag	Description
101	DMISSINGFIELD	The request was missing one or more required fields.
102	DINVALIDDATA	The request had one or more fields with invalid data.
202	DCARDEXPIRED	Expired credit card.
205	DCARDREFUSED	Lost or stolen credit card.
208	DCARDREFUSED	Inactive card or card not authorized for card-not-present transactions.
220	DCHECKREFUSED	The processor declined the transaction based on a general problem with the customer's account.
221	DCHECKREFUSED	The customer matched an entry on the processor's negative file.
222	DCHECKREFUSED	The customer's bank account is frozen.
231	DINVALIDCARD	Invalid credit card number.
232	DINVALIDCARD	Card type not supported by the processor.
233	DINVALIDDATA	General decline by the processor for invalid data.

Taking a Subscription Off Hold

To take a subscription off hold:

Step 1 Determine why the subscription is on hold by doing one or both of the following:

- Look at the *Status* column in the Subscription Payment Exception Report.
- View the transaction details for the last failed payment attempt by viewing the subscription information in the Business Center. See "Searching for and Viewing a Subscription," page 35.

Step 2 Update the subscription with new or corrected information.

For example, you might need to provide a new credit card number or update the card's expiration date. To update the subscription, see "Updating a Customer Subscription," page 37.

When you update the subscription, it is automatically taken off hold and all past due payments are automatically scheduled for collection the next day. If you want to prevent the past due payments from being scheduled, you can skip them as described in "Adding, Skipping, or Unskipping Payments," page 39.

Past Due Payments

If a payment fails when CyberSource tries to process it, the payment is past due. Depending on the reason for the failure, the subscription automatically goes on hold or goes into retry mode. Determine which payments are past due by doing one or both of the following:

- View the subscription information in the Business Center. See "Searching for and Viewing a Subscription," page 35.
- Search for payments that are scheduled to be processed within a specific range of dates. See "Searching for and Viewing an Individual Payment," page 36.

Subscription 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 such as a new account number or new expiration date. When you update the subscription, it is automatically taken off hold and all past due payments are automatically scheduled for collection the next day. If you want to prevent the past due payments from being scheduled, you can skip them as described in "Adding, Skipping, or Unskipping Payments," page 39.

If the subscription goes on hold for a reason that does not require you to update the subscription, you still must update the subscription to take it off hold. In this situation, update one of the basic subscription fields, such as the customer's name. This scenario can happen if the customer was overdue paying a credit card bill and had reached the credit card's credit limit, causing the payment attempts to fail. After the customer pays the bill and has available credit again, you can update the subscription to take it off hold. CyberSource schedules the past due payments for collection the next day.

You can choose to skip the past due payments instead of collecting them when the subscription goes off hold. To skip a payment, see "Adding, Skipping, or Unskipping Payments," page 39.

> ⚠️ **Important** CyberSource recommends that you skip past due payments before updating a subscription with the correct information, which takes it off hold. If you update the subscription first and then skip the past due payments, you could inadvertently create a timing conflict that results in one or more of the payments being executed instead of being skipped. To avoid this possibility, skip the payments before updating the subscription.

Subscription Is in Retry Mode

You might not need to do anything to address the past due payment. Depending on the problem, it is possible that the problem will fix itself and the payment will be successful next time CyberSource retries it.

Subscription Sharing

When you create a subscription, your CyberSource merchant ID is associated with that subscription. Profile sharing lets you share subscriptions among a group of CyberSource merchant IDs.

To set up subscription sharing, call Customer Support.

With subscription sharing:

- You can access subscriptions that were created with other CyberSource merchant IDs. You can:
  - Obtain information about a subscription that was created with a CyberSource merchant ID for which sharing is enabled.
  - Update a subscription that was created with a CyberSource merchant ID for which sharing is enabled.
  - Perform an on-demand transaction for a subscription that was created with a CyberSource merchant ID for which sharing is enabled.

- People using other CyberSource merchant IDs can access subscriptions that you created.

You cannot:

- Create a subscription with a CyberSource merchant ID other than your own.

- Create a subscription by converting an existing transaction that was processed with a CyberSource merchant ID other than your own.

- Delete a subscription that has a CyberSource merchant ID other than your own.

- See the history in the Business Center for subscriptions that have CyberSource merchant IDs other than your own, with this exception: you can see the history for on-demand payments and credits you requested using subscriptions with CyberSource merchant IDs other than your own.

Retrieving Customer Subscription Information

With subscription sharing, you can retrieve information about any subscription that was created with a CyberSource merchant ID for which sharing is enabled. In your request, use your own CyberSource merchant ID, and use the subscription ID of the subscription for which you want to retrieve information. You can retrieve details and view any payment events of a subscription with a status of *superseded*. If you request the retrieve service for a subscription that was not created with a CyberSource merchant ID for which sharing is enabled, CyberSource returns the reason code 150. Follow the instructions in "Retrieving a Customer Subscription," page 37 to retrieve subscriptions.

Updating a Customer Subscription

If your account is configured to use a 16-digit format-preserving subscription ID, when you update the card account number with a new card account number, you receive a new subscription ID. This new subscription ID is created only if the last four digits of the new card number are different from the last four digits of the previous card number. Otherwise, no new subscription ID is created.

The status of the previous subscription ID changes to superseded. Both the superseded subscription ID and the new subscription ID are displayed on the **Subscription Details** page. The superseded customer subscription cannot be modified, deleted, or cancelled. You can retrieve details and view any payment events. All payments or credits requested are applied to the new customer subscription. Update your subscription ID storage systems with the new subscription ID; otherwise, all transactions are declined if using a customer subscription with a status of superseded.

With subscription sharing, you can update any customer subscription that is created with a CyberSource merchant ID for which sharing is enabled. For general information, see "Updating a Customer Subscription," page 37.

In your request, use your own CyberSource merchant ID, and use the subscription ID of the customer profile or subscription you want to update. If you request **paySubscriptionUpdateService** for a customer profile or subscription that is not created with a CyberSource merchant ID for which sharing is enabled, CyberSource returns the reason code 150.

Requesting an On-Demand Payment or Credit

> **⚠️ Important**
>
> You cannot process an on-demand payment or credit using a customer subscription that has a status of superseded. The superseded customer subscription cannot be modified, deleted, or cancelled. You can retrieve details and view any payment events. All payments or credits requested are applied to the new customer subscription.

With subscription sharing, you can request an on-demand payment or credit for any subscription that is created with a CyberSource merchant ID for which sharing is enabled. For general information, see .

To request an on-demand credit, you can use the subscription ID for any subscription that is created with a CyberSource merchant ID for which sharing is enabled.

In your request, use your own CyberSource merchant ID, and use the subscription ID of the subscription or customer profile for which you are requesting a payment or credit. If you request a payment or credit for a subscription or customer profile that is not created with a CyberSource merchant ID for which sharing is enabled, CyberSource returns the reason code 150.

Deleting a Customer Subscription

⚠️ **Important**	Deleting a customer subscription is permanent. Only subscriptions with a status of *current* can be deleted. When a subscription is deleted, any subscriptions it superseded are also deleted.

To delete a customer subscription:

Step 1   Set the **paySubscriptionDeleteService_run** service to true.

Step 2   Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **recurringSubscriptionInfo_subscriptionID**

For descriptions of the required fields, see Appendix A, "API Fields," on page 95.

Subscription Detail Report

The Subscription Detail Report provides detailed information about:

- On-demand customer profile transactions
- Installment subscription transactions
- Recurring subscription transactions

Your Subscription Detail Report can also include information about all three types of subscriptions and customer profiles. The Subscription Detail Report is available in XML and CSV formats. You can access the report on the Business Center, and you can use a client API to programmatically download the report. For details about downloading reports, see *Reporting Developer's Guide*.

| ⚠ **Important** | This chapter also describes the elements and attributes relating to Payment Tokenization. See also *Payment Tokenization Using the Business Center*. |

XML Report Format

Some subscriptions and customer profiles do not have values for all the fields in the report. If a field does not have a value, the field is omitted from the report.

XML Conventions

Report Declaration Syntax

These conventions are used to describe the report:

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE Report SYSTEM URIreference>
<Report Name=CDATA
        Version=NMTOKEN
        xmlns=CDATA
        MerchantID=CDATA
        ReportStartDate=CDATA
```

```
ReportEndDate=CDATA>
```

Note   The value of URIreference is the same as that for xmlns. Whether you are operating in test mode or live mode, the namespace always refers to ebctest instead of ebc.

Element Declaration Syntax

These conventions are used to describe the syntax of each XML element:

```
<Sample Attribute=CDATA>
  (Element)
  (ChoiceOne) | (ChoiceTwo)
  (ComplexElement)
  (RequiredRecurringElement)+
  (OptionalElement)?
  (OptionalRecurringElement)*
</Sample>
```

Note   The DTDs for the reports can use a syntax with the ?, +, or * character inside the parentheses. For example, instead of (OptionalElement)?, the DTD might use (OptionalElement?). Either syntax is acceptable.

Table 5   Conventions for XML Syntax

Convention	Description
<Sample>	Parent of the subsequent elements.
Attribute=CDATA	Name of the attribute followed by the XML data format for the attribute.
(Element)	Required element. Must appear only once.
(ChoiceOne) | (ChoiceTwo)	Either element <ChoiceOne> or <ChoiceTwo> but not both.
(**ComplexElement**)	Element with one or more children.
(RequiredRecurringElement)+	Required element. Can appear one or more times.
(OptionalElement)?	Optional element. Can appear once or be omitted.
(OptionalRecurringElement)*	Optional element. Can appear zero or more times.

Data Types and Lengths

The following table describes the data types. In the description for each element, the data length indicates the maximum length for that element.

Table 6   Data Types for XML Reports

Data Type	Description
Alphanumeric	String containing letters, numbers, and special characters such as @, #, and %. All text uses UTF-8 character encoding.
Boolean	Single character: T for true or F for false.
Amount	An amount, including a decimal point if necessary.
Date	*YYYY-MM-DD,* where: ■ *YYYY* is the four-digit year ■ *MM* is the two-digit month ■ *DD* is the two-digit day The dashes are included in a Date value.
Date Time	*YYYY-MM-DD*T*HH:MM:SS*[+ | -]*HH:MM*, where: ■ *YYYY* is the four-digit year. ■ *MM* is the two-digit month. ■ *DD* is the two-digit day. ■ T*HH:MM:SS* is the time, with *HH* representing hours, *MM* representing minutes, and *SS* representing seconds. ■ [+ | -]*HH:MM* is the time zone's offset from Greenwich Mean Time (GMT), with *HH* representing hours and *MM* representing minutes. The number is prefixed by either a plus (+) or minus (-) to indicate whether the offset adds to or subtracts from GMT. For example, the offset for Pacific Daylight Time is -07:00. **Example** 2010-02-28T16:31:18-07:00 represents February 28, 2010 at 4:31:18 PM PDT.
Numeric	String containing numbers.

XML Report Elements

<Report>

The `<Report>` element is the root of the report.

Syntax

```
<Report Name=CDATA
        Version=NMTOKEN
        xmlns=CDATA
        MerchantID=CDATA
        ReportStartDate=CDATA
        ReportEndDate=CDATA>
    (SubscriptionPayments)
</Report>
```

Table 7   Attributes of <Report>

Attribute Name	Description	Data Type & Length
Name	Name of the report. Possible value: `Subscription Detail Report`	Alphanumeric (100)
Version	Version number of the report.	Numeric (10)
xmlns	XML namespace for the report.	Alphanumeric (100)
MerchantID	CyberSource merchant ID used for the transactions in the report.	Alphanumeric (30)
ReportStartDate	First date included in the report.	DateTime (25)
ReportEndDate	Last date included in the report.	DateTime (25)

Example   <Report> Element

```
<Report Name="Subscription Detail"
        Version="1.0"
        xmlns="https://ebctest.cybersource.com/ebctest/reports/dtd/sdr.dtd"
        MerchantID="infodev"
        ReportStartDate="2010-02-11T15:00:00+09:00"
        ReportEndDate="2010-02-12T15:00:00+09:00">
  <SubscriptionPayments>
     ...
  </SubscriptionPayments>
</Report>
```

<SubscriptionPayments>

The `<SubscriptionPayments>` element contains all the subscription and customer profile payments that are included in the report.

Syntax

```
<SubscriptionPayments>
  (SubscriptionPayment)*
</SubscriptionPayments>
```

Example   <SubscriptionPayments> Element

```
<SubscriptionPayments>
   <SubscriptionPayment payment_request_id="1895362076290174065740"
                        subscription_id="1858271439560174065740"
                        transaction_date="2010-02-11T18:43:28+09:00"
                        merchant_ref_number="1185827118784"
                        transaction_ref_number="00189193RYZPS6GPE1SX"
                        e_commerce_indicator="M">
      ...
   </SubscriptionPayment>
</SubscriptionPayments>
```

<SubscriptionPayment>

The `<SubscriptionPayment>` element contains the customer, payment, and subscription or customer profile information for a transaction.

Syntax

```
<SubscriptionPayment payment_request_id=CDATA
                     subscription_id=CDATA
                     transaction_date=CDATA
                     merchant_ref_number=CDATA
                     transaction_ref_number=CDATA
                     e_commerce_indicator=CDATA>
   (BillTo)
   (ShipTo)
   (PaymentMethod)
   (PaymentData)
   (MerchantDefinedData)
   (SubscriptionDetails)
</SubscriptionPayment>
```

Table 8   Attributes of <SubscriptionPayment>

Attribute Name	Field Description	Data Type & Length
payment_request_id	Identifier for the transaction request.	String (26)
subscription_id	Identifier for the subscription or customer profile.	String (26)
transaction_date	Date of transaction.	DateTime (25)
merchant_ref_number	Merchant-generated order reference or tracking number.	String (50)
transaction_ref_ number	Identifier for the transaction.	String (64)
e_commerce_indicator	Type of transaction. Possible values: ■ internet (default) ■ moto ■ retail	String (13)

Example   <SubscriptionPayment> Element

```
<SubscriptionPayment payment_request_id="1895362076290174065740"
                     subscription_id="1858271439560174065740"
                     transaction_date="2010-02-11T18:43:28+09:00"
                     merchant_ref_number="1185827118784"
                     transaction_ref_number="00189193RYZPS6GPE1SX"
                     e_commerce_indicator="M">
   <BillTo>
      ...
   </BillTo>
   <ShipTo>
      ...
   </ShipTo>
   <PaymentMethod>
      ...
   </PaymentMethod>
   <PaymentData>
      ...
   </PaymentData>
   <MerchantDefinedData>
      ...
   </MerchantDefinedData>
   <SubscriptionDetails>
      ...
   </SubscriptionDetails>
</SubscriptionPayment>
```

<BillTo>

The `<BillTo>` element contains the customer's contact information.

Syntax

```
<BillTo>
    (customer_firstname)
    (customer_lastname)
    (bill_address1)
    (bill_address2)
    (bill_city)
    (bill_state)
    (bill_zip)
    (bill_country)
    (company_name)
    (customer_email)
    (customer_phone)
    (customer_ipaddress)
    (customer_account_id)
</BillTo>
```

Table 9   Elements of <BillTo>

Element Name	Field Description	Data Type & Length
`<customer_firstname>`	First name of the customer.	String (60)
`<customer_lastname>`	Last name of the customer.	String (60)
`<bill_address1>`	First line of the billing address.	String (60)
`<bill_address2>`	Second line of the billing address. Used for additional address information.	String (60)
`<bill_city>`	City of the customer.	String (50)
`<bill_state>`	State or province of the customer's billing address.	String (2)
`<bill_zip>`	Zip code of the customer.	String (10)
`<bill_country>`	Country of the customer.	String (2)
`<company_name>`	Company name of the customer.	String (40)
`<customer_email>`	Email address of the customer.	String (255)
`<customer_phone>`	Phone number of the customer.	String (20)
`<customer_ipaddress>`	IP address of the customer.	String (15)
`<customer_account_id>`	Identifier for the customer's account. You define this value when you create the subscription.	String (50)

Example   <BillTo> Element

```
<BillTo>
   <customer_firstname>JOHN</customer_firstname>
   <customer_lastname>SMITH</customer_lastname>
   <bill_address1>8310 Capitol of Texas Hwy North</bill_address1>
   <bill_address2>Suite 100</bill_address2>
   <bill_city>Austin</bill_city>
   <bill_state>TX</bill_state>
   <bill_zip>78731</bill_zip>
   <bill_country>US</bill_country>
   <company_name>Your Company</company_name>
   <customer_email>customer@example.com</customer_email>
   <customer_phone>650-965-6000</customer_phone>
   <customer_ipaddress>http://11.1.1.111</customer_ipaddress>
   <customer_account_id>111111</customer_account_id>
</BillTo>
```

<ShipTo>

The <ShipTo> element contains the shipping information.

Syntax

```
<ShipTo>
  (ship_to_firstname)
  (ship_to_lastname)
  (ship_to_address1)
  (ship_to_address2)
  (ship_to_city)
  (ship_to_state)
  (ship_to_zip)
  (ship_to_country)
  (ship_to_company_name)
</ShipTo>
```

Table 10   Elements of <ShipTo>

Element Name	Field Description	Data Type & Length
<ship_to_firstname>	First name of the person receiving the product.	String (60)
<ship_to_lastname>	Last name of the person receiving the product.	String (60)
<ship_to_address1>	First line of shipping address.	String (60)
<ship_to_address2>	Second line of shipping address.	String (60)
<ship_to_city>	City of shipping address.	String (60)

Table 10   Elements of <ShipTo> (Continued)

Element Name	Field Description	Data Type & Length
`<ship_to_state>`	State or province of shipping address.	String (2)
`<ship_to_zip>`	Postal code of shipping address.	String (10)
`<ship_to_country>`	Country of shipping address.	String (2)
`<ship_to_company_name>`	Company to which the product will be shipped.	String (60)

Example   <ShipTo> Element

```
<ShipTo>
   <ship_to_firstname>JOHN</ship_to_firstname>
   <ship_to_lastname>SMITH</ship_to_lastname>
   <ship_to_address1>8310 Capitol of Texas Hwy North</ship_to_address1>
   <ship_to_address2>Suite 100</ship_to_address2>
   <ship_to_city>Austin</ship_to_city>
   <ship_to_state>TX</ship_to_state>
   <ship_to_zip>78731</ship_to_zip>
   <ship_to_country>US</ship_to_country>
   <ship_to_company_name>Your Company</ship_to_company_name>
</ShipTo>
```

<PaymentMethod>

The `<PaymentMethod>` element contains the payment information.

Syntax

```
<PaymentMethod>
   (Card | Check)
</PaymentMethod>
```

Example   <PaymentMethod> Element

```
<PaymentMethod>
  <Card>
    ...
  </Card>
</PaymentMethod>
```

<Card>

The `<Card>` element contains the card information. This element is used for credit cards and PINless debit cards.

Syntax

```
<Card>
    (card_type)
    (customer_cc_expmo)
    (customer_cc_expyr)
    (customer_cc_startmo)
    (customer_cc_startyr)
    (customer_cc_issue-number)
    (account_suffix)
</Card>
```

Table 11   Elements of <Card>

Element Name	Field Description	Data Type & Length
`<card_type>`	Card type used for the transaction. For credit card details, see *Card Services Using the Simple Order API.*	String (3)
`<customer_cc_expmo>`	Expiration month for the card.	Integer (2)
`<customer_cc_expyr>`	Expiration year for the card.	Integer (4)
`<customer_cc_startmo>`	Starting month of the card validity period for Maestro (UK Domestic) if the card has a start date printed on it.	Integer (2)
`<customer_cc_startyr>`	Starting year of the card validity period for Maestro (UK Domestic) if the card has a start year printed on it.	Integer (4)
`<customer_cc_issue-number>`	Indicates the number of times a Maestro (UK Domestic) card has been issued to the account holder.	String (5)
`<account_suffix>`	Last four digits of the customer's payment account number.	String (4)

Example   <Card> Element

```
<Card>
    <card_type>Visa</card_type>
    <customer_cc_expmo>01</customer_cc_expmo>
    <customer_cc_expyr>2013</customer_cc_expyr>
    <account_suffix>1111</account_suffix>
</Card>
```

<Check>

The `<Check>` element contains the check information.

Syntax

```
<Check>
    (account_suffix)
    (ecp_account_type)
    (ecp_rdfi)
</Check>
```

Table 12   Elements of <Check>

Element Name	Field Description	Data Type & Length
`<account_suffix>`	Last four digits of the customer's account number.	String (4)
`<ecp_account_type>`	Account type. Possible values: C: Checking S: Savings (USD only) X: Corporate Checking (USD only)	String (1)
`<ecp_rdfi>`	Bank routing/transit number.	Non-negative Integer (9)

Example   <Check> Element

```
<Check>
    <account_suffix>1111</account_suffix>
    <ecp_account_type>C</ecp_account_type>
    <ecp_rdfi>111111111</ecp_rdfi>
</Check>
```

<PaymentData>

The `<PaymentData>` element contains information about a payment transaction.

Syntax

```
<PaymentData>
    (ics_applications)
    (recurring_payment_event_amount)
    (payment_processor)
    (currency_code)
    (reason_code)
    (auth_rcode)
    (auth_code)
```

```
   (auth_type)
   (auth_auth_avs)
   (auth_auth_response)
   (auth_cavv_response)
   (ics_rcode)
   (ics_rflag)
   (ics_rmsg)
   (request_token)
</PaymentData>
```

Table 13   Elements of <PaymentData>

Element Name	Field Description	Data Type & Length
`<ics_applications>`	Comma-separated list of CyberSource services that were processed.	String (255)
`<recurring_payment_event_amount>`	Payment amount for an individual payment in an installment or recurring subscription.	String (15)
`<payment_processor>`	Name of the financial institution that processed the transaction.	String (40)
`<currency_code>`	Currency used by the customer.	String (5)
`<reason_code>`	Reason code that indicates why the subscription or customer profile payment succeeded or failed. For details, see the appendix of reason codes in the documentation for the relevant payment method.	Numeric (3)
`<auth_rcode>`	Indication of the authorization's success or failure.	Integer (1)
`<auth_code>`	Code returned from the processor for an approved authorization.	String (6)
`<auth_type>`	Specifies that the authorization was obtained outside the CyberSource system. This field is used with forced captures. For details on forced captures, see *Card Services Using the Simple Order API.*	String (6)
`<auth_auth_avs>`	Result of the AVS fraud check.	String (1)
`<auth_auth_response>`	Response sent from the processor.	String (10)
`<auth_cavv_response>`	Result of the CVN fraud check.	String (10)
`<ics_rcode>`	One-digit code that indicates whether the entire request was successful.	Integer (1)
`<ics_rflag>`	One-word description of the result of the entire request.	String (50)

Table 13   Elements of <PaymentData> (Continued)

Element Name	Field Description	Data Type & Length
`<ics_rmsg>`	Message that explains the `<ics_flag>` value.	String (255)
`<request_token>`	Request token value returned from a request.	String (256)

Example   <PaymentData> Element

```
<PaymentData>
   <ics_applications>ics_auth,ics_bill</ics_applications>
   <recurring_payment_event_amount>99.99</recurring_payment_event_amount>
   <payment_processor>hsbc</payment_processor>
   <currency_code>USD</currency_code>
   <reason_code>200</reason_code>
   <auth_rcode>0</auth_rcode>
   <auth_code>JS1111</auth_code>
   <auth_type>O</auth_type>
   <auth_auth_avs>N</auth_auth_avs>
   <auth_auth_response>00</auth_auth_response>
   <auth_cavv_response>1111</auth_cavv_response>
   <ics_rcode>1</ics_rcode>
   <ics_rflag>111111111</ics_rflag>
   <ics_rmsg>1111111111</ics_rmsg>
    <request_token>Afvvj5r9uxlPGppxMFE2FNaWtdbSB04e4rJkb81ynjU01w43</request_
token>
</PaymentData>
```

<MerchantDefinedData>

The `<MerchantDefinedData>` element contains the merchant-defined data.

Syntax

```
<MerchantDefinedData>
    (merchant_defined_data1)
    (merchant_defined_data2)
    (merchant_defined_data3)
    (merchant_defined_data4)
</MerchantDefinedData>
```

Table 14   Elements of <MerchantDefinedData>

Element Name	Field Description	Data Type & Length

`<merchant_defined_data1>`
 	
`<merchant_defined_data2>`
 	
`<merchant_defined_data3>`
 	
`<merchant_defined_data4>`
	Four fields that merchants can use to store information.
	
	Important 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, 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.
	
	Note If you are creating a subscription or customer profile based on an authorization, the merchant-defined data fields do not get transferred to the new subscription or customer profile.
		String (255)

Example   <MerchantDefinedData> Element

```
<MerchantDefinedData>
   <merchant_defined_data1>gift</merchant_defined_data1>
   <merchant_defined_data2>rush shipping</merchant_defined_data2>
   <merchant_defined_data3>discount #1</merchant_defined_data3>
   <merchant_defined_data4>discount #2</merchant_defined_data4>
</MerchantDefinedData>
```

<SubscriptionDetails>

The `<SubscriptionDetails>` element contains information about the subscription or customer profile.

Syntax

```
<SubscriptionDetails>
    (recurring_payment_amount)
    (subscription_type)
    (subscription_title)
    (last_subscription_status)
    (subscription_status)
    (subscription_payment_method)
    (recurring_start_date)
    (next_scheduled_date)
    (event_retry_count)
    (payments_success)
    (payment_success_amount)
    (recurring_number_of_payments)
    (installment_sequence)
    (installment_total_count)
    (recurring_frequency)
    (recurring_approval_required)
    (recurring_payment_event_approved_by)
    (recurring_automatic_renew)
    (comments)
    (setup_fee)
    (setup_fee_currency)
    (tax_amount)
    (merchant_secure_data1)
    (merchant_secure_data2)
    (merchant_secure_data3)
    (merchant_secure_data4)
</SubscriptionDetails>
```

Table 15   Elements of <SubscriptionDetails>

Element Name	Field Description	Data Type & Length
`<recurring_payment_ amount>`	Payment amount for all the payments in an installment or recurring subscription.	Integer (15)
`<subscription_type>`	Type of subscription or customer profile. Possible values: ■ `on-demand` ■ `recurring`	String (20)
`<subscription_title>`	Name or title of the subscription or customer profile.	String (60)

Table 15   Elements of <SubscriptionDetails> (Continued)

Element Name	Field Description	Data Type & Length
`<last_subscription_status>`	Status of the subscription or customer profile on the previous day.	String (20)
`<subscription_status>`	Current status of the subscription or customer profile. Possible values: ■ `hold` ■ `retry` ■ `cancelled` ■ `current` ■ `superseded`	String (20)
`<subscription_payment_method>`	Method of payment associated with the subscription or customer profile.	String (20)
`<recurring_start_date>`	First payment date for an installment or recurring subscription.	DateTime (25)
`<next_scheduled_date>`	Next payment date for an installment or recurring subscription.	DateTime (25)
`<event_retry_count>`	Total number of payments that are pending in retry mode.	Integer (3)
`<payments_success>`	Total count of successful payments to date.	Integer (5)
`<payment_success_amount>`	Total amount of payments to date.	Decimal (15)
`<recurring_number_of_payments>`	Total number of payments set up for an installment subscription.	Integer (3)
`<installment_sequence>`	Total number of payments in the schedule for an installment subscription.	Decimal (2)
`<installment_total_count>`	Total number of payments for an installment subscription. This value is used in conjunction with `<installment_sequence>` to keep track of the number of installments that have been billed.	Decimal (2)

Table 15   Elements of <SubscriptionDetails> (Continued)

Element Name	Field Description	Data Type & Length
`<recurring_frequency>`	Frequency of payments for the subscription or customer profile. Possible values: ■ `on-demand` ■ `weekly` ■ `bi-weekly` ■ `semi-monthly` ■ `monthly` ■ `quarterly` ■ `quad-weekly` ■ `semi annually` ■ `annually`	String (20)
`<recurring_approval_ required>`	Value indicating whether approval is required for the payments for an installment or recurring subscription. Possible values: `true`: Payments must be approved before processing. `false`: Payments do not need to be approved before processing.	String (6)
`<recurring_payment_ event_approved_by>`	Name of the person or financial institution that approved the payment for the installment or recurring subscription.	String (30)
`<recurring_automatic_ renew>`	Flag indicating whether to automatically renew the payment schedule for an installment subscription. Possible values: `true`: Subscription schedule will be renewed automatically. `false`: Subscription schedule will not be renewed automatically.	String (5)
`<comments>`	Optional comments that you can make about the subscription or customer profile.	String (255)
`<setup_fee>`	Fee charged to your customer when you created an installment or recurring subscription.	Decimal (15)
`<setup_fee_currency>`	Currency of the setup fee.	String (3)

Table 15   Elements of <SubscriptionDetails> (Continued)

Element Name	Field Description	Data Type & Length
`<tax_amount>`	Total amount of tax to be applied to the product.	Decimal (15)

`<merchant_secure_data1>`
 	
`<merchant_secure_data2>`
 	
`<merchant_secure_data3>`
 	
`<merchant_secure_data4>`
	Storage fields for any type of data.	String (100)

Example   <SubscriptionDetails> Element

```
<SubscriptionDetails>
    <recurring_payment_amount>0.00</recurring_payment_amount>
    <subscription_type>on-demand</subscription_type>
    <subscription_title>My Subscription</subscription_title>
    <last_subscription_status>CURRENT</last_subscription_status>
    <subscription_status>CURRENT</subscription_status>
    <subscription_payment_method>SW</subscription_payment_method>
    <recurring_start_date>2010-02-01 07:00:00.0</recurring_start_date>
    <next_scheduled_date>2010-03-01 07:00:00.0</next_scheduled_date>
    <event_retry_count>0</event_retry_count>
    <payments_success>0</payments_success>
    <payment_success_amount>0.00</payment_success_amount>
    <recurring_number_of_payments>0</recurring_number_of_payments>
    <installment_sequence>0.00</installment_sequence>
    <installment_total_count>0.00</installment_total_count>
    <recurring_frequency>on-demand</recurring_frequency>
    <recurring_approval_required>N</recurring_approval_required>
    <recurring_payment_event_approved_by>hsbc</recurring_payment_event_approved_by>
    <recurring_automatic_renew>N</recurring_automatic_renew>
    <comments>0</comments>
    <setup_fee>0.00</setup_fee>
    <setup_fee_currency>USD</setup_fee_currency>
    <tax_amount>0.000000000000000</tax_amount>
    <merchant_secure_data1>0</merchant_secure_data1>
    <merchant_secure_data2>0</merchant_secure_data2>
    <merchant_secure_data3>0</merchant_secure_data3>
    <merchant_secure_data4>0</merchant_secure_data4>
</SubscriptionDetails>
```

XML Report DTD

```
<!ELEMENT Report (Subscriptions)>
<!ATTLIST Report Name CDATA #REQUIRED
                 Version NMTOKEN #REQUIRED
                 xmlns CDATA #REQUIRED>
                 MerchantID CDATA #REQUIRED
                 ReportStartDate CDATA #REQUIRED
                 ReportEndDate CDATA #REQUIRED
<!ELEMENT SubscriptionPayments (SubscriptionPayment)*>
<!ELEMENT SubscriptionPayment (BillTo, ShipTo, PaymentMethod,
                 PaymentData, MerchantDefinedData,
                 SubscriptionDetails)>
<!ATTLIST SubscriptionPayment payment_request_id CDATA #REQUIRED
                 subscription_id CDATA #REQUIRED
                 transaction_date CDATA #REQUIRED
                 merchant_ref_number CDATA #IMPLIED
                 transaction_ref_number CDATA #IMPLIED
                 e_commerce_indicator CDATA #IMPLIED>
<!ELEMENT BillTo (customer_firstname, customer_lastname,
                 bill_address1,bill_address2, bill_city, bill_state,
                 bill_zip, bill_country, company_name,
                 customer_email, customer_phone, customer_ipaddress,
                 customer_account_id)>
<!ELEMENT customer_firstname (#PCDATA)>
<!ELEMENT customer_lastname (#PCDATA)>
<!ELEMENT bill_address1 (#PCDATA)>
<!ELEMENT bill_address2 (#PCDATA)>
<!ELEMENT bill_city (#PCDATA)>
<!ELEMENT bill_state (#PCDATA)>
<!ELEMENT bill_zip (#PCDATA)>
<!ELEMENT bill_country (#PCDATA)>
<!ELEMENT company_name (#PCDATA)>
<!ELEMENT customer_email (#PCDATA)>
<!ELEMENT customer_phone (#PCDATA)>
<!ELEMENT customer_ipaddress (#PCDATA)>
<!ELEMENT customer_account_id (#PCDATA)>
<!ELEMENT ShipTo (ship_to_firstname, ship_to_lastname,
                  ship_to_address1, ship_to_address2, ship_to_city,
                  ship_to_state, ship_to_zip, ship_to_country,
                  ship_to_company_name)>
<!ELEMENT ship_to_firstname (#PCDATA)>
<!ELEMENT ship_to_lastname (#PCDATA)>
<!ELEMENT ship_to_address1 (#PCDATA)>
<!ELEMENT ship_to_address2 (#PCDATA)>
<!ELEMENT ship_to_city (#PCDATA)>
<!ELEMENT ship_to_state (#PCDATA)>
<!ELEMENT ship_to_zip (#PCDATA)>
<!ELEMENT ship_to_country (#PCDATA)>
<!ELEMENT ship_to_company_name (#PCDATA)>
<!ELEMENT PaymentMethod (Card | Check)>
<!ELEMENT Card (card_type, customer_cc_expmo, customer_cc_expyr,
                customer_cc_startmo, customer_cc_startyr,
```

```
                              customer_cc_issue-number, account_suffix)>
            <!ELEMENT card_type (#PCDATA)>
            <!ELEMENT customer_cc_expmo (#PCDATA)>
            <!ELEMENT customer_cc_expyr (#PCDATA)>
            <!ELEMENT customer_cc_startmo (#PCDATA)>
            <!ELEMENT customer_cc_startyr (#PCDATA)>
            <!ELEMENT customer_cc_issue-number (#PCDATA)>
            <!ELEMENT account_suffix (#PCDATA)>
            <!ELEMENT Check (account_suffix, ecp_account_type, ecp_rdfi)>
            <!ELEMENT account_suffix (#PCDATA)>
            <!ELEMENT ecp_account_type (#PCDATA)>
            <!ELEMENT ecp_rdfi (#PCDATA)>
            <!ELEMENT PaymentData (ics_applications,
                          recurring_payment_event_amount, payment_processor,
                          currency_code, reason_code, auth_rcode, auth_code,
                          auth_type, auth_auth_avs, auth_auth_response,
                          auth_cavv_response, ics_rcode, ics_rflag, ics_rmsg,
                          request_token)>
            <!ELEMENT ics_applications (#PCDATA)>
            <!ELEMENT recurring_payment_event_amount (#PCDATA)>
            <!ELEMENT payment_processor (#PCDATA)>
            <!ELEMENT currency_code (#PCDATA)>
            <!ELEMENT reason_code (#PCDATA)>
            <!ELEMENT auth_rcode (#PCDATA)>
            <!ELEMENT auth_code (#PCDATA)>
            <!ELEMENT auth_type (#PCDATA)>
            <!ELEMENT auth_auth_avs (#PCDATA)>
            <!ELEMENT auth_auth_response (#PCDATA)>
            <!ELEMENT auth_cavv_response (#PCDATA)>
            <!ELEMENT ics_rcode (#PCDATA)>
            <!ELEMENT ics_rflag (#PCDATA)>
            <!ELEMENT ics_rmsg (#PCDATA)>
            <!ELEMENT request_token (#PCDATA)>
            <!ELEMENT MerchantDefinedData (merchant_defined_data1,
                          merchant_defined_data2, merchant_defined_data3,
                          merchant_defined_data4)>
            <!ELEMENT merchant_defined_data1 (#PCDATA)>
            <!ELEMENT merchant_defined_data2 (#PCDATA)>
            <!ELEMENT merchant_defined_data3 (#PCDATA)>
            <!ELEMENT merchant_defined_data4 (#PCDATA)>
            <!ELEMENT SubscriptionDetails (recurring_payment_amount,
                          subscription_type, subscription_title,
                          last_subscription_status, subscription_status,
                          subscription_payment_method, recurring_start_date,
                          next_scheduled_date, event_retry_count,
                          payments_success, payment_success_amount,
                          recurring_number_of_payments?,
                          installment_sequence?, installment_total_count?,
                          recurring_frequency, recurring_approval_required,
                          recurring_payment_event_approved_by,
                          recurring_automatic_renew, comments, setup_fee,
                          setup_fee_currency,tax_amount,
                          merchant_secure_data1, merchant_secure_data2,
```

```
                            merchant_secure_data3, merchant_secure_data4)>
          <!ELEMENT recurring_payment_amount (#PCDATA)>
          <!ELEMENT subscription_type (#PCDATA)>
          <!ELEMENT subscription_title (#PCDATA)>
          <!ELEMENT last_subscription_status (#PCDATA)>
          <!ELEMENT subscription_status (#PCDATA)>
          <!ELEMENT subscription_payment_method (#PCDATA)>
          <!ELEMENT recurring_start_date (#PCDATA)>
          <!ELEMENT next_scheduled_date (#PCDATA)>
          <!ELEMENT event_retry_count (#PCDATA)>
          <!ELEMENT payments_success (#PCDATA)>
          <!ELEMENT payment_success_amount (#PCDATA)>
          <!ELEMENT recurring_number_of_payments (#PCDATA)>
          <!ELEMENT installment_sequence (#PCDATA)>
          <!ELEMENT installment_total_count (#PCDATA)>
          <!ELEMENT recurring_frequency (#PCDATA)>
          <!ELEMENT recurring_approval_required (#PCDATA)>
          <!ELEMENT recurring_payment_event_approved_by (#PCDATA)>
          <!ELEMENT recurring_automatic_renew (#PCDATA)>
          <!ELEMENT comments (#PCDATA)>
          <!ELEMENT setup_fee (#PCDATA)>
          <!ELEMENT setup_fee_currency (#PCDATA)>
          <!ELEMENT tax_amount (#PCDATA)>
          <!ELEMENT merchant_secure_data1 (#PCDATA)>
          <!ELEMENT merchant_secure_data2 (#PCDATA)>
          <!ELEMENT merchant_secure_data3 (#PCDATA)>
          <!ELEMENT merchant_secure_data4 (#PCDATA)>
```

XML Report Sample

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE Report SYSTEM
   "https://ebctest.cybersource.com/ebctest/reports/dtd/sdr.dtd">
<Report Name="Subscription Detail"
   Version="1.0"
   xmlns=""https://ebctest.cybersource.com/ebctest/reports/dtd/sdr.dtd""
   MerchantID="infodev"
   ReportStartDate="2010-02-11T15:00:00+09:00"
   ReportEndDate="2010-02-12T15:00:00+09:00">
   <SubscriptionPayments>
      <SubscriptionPayment payment_request_id="11111111111111111111"
               subscription_id="111111111111111111111"
               transaction_date="2010-02-11T18:43:28+09:00"
               merchant_ref_number="1111111111111"
               transaction_ref_number="111111RYZPS6548PSX"
               e_commerce_inidicator="M">
         <BillTo>
            <customer_firstname>JOHN</customer_firstname>
            <customer_lastname>SMITH</customer_lastname>
            <bill_address1>8310 Capitol of Texas Hwy North</bill_address1>
            <bill_address2>Suite 100</bill_address2>
            <bill_city>Austin</bill_city>
            <bill_state>TX</bill_state>
            <bill_zip>78731</bill_zip>
            <bill_country>US</bill_country>
            <company_name>Your Company</company name>
            <customer_email>customer@example.com</customer_email>
            <customer_phone>650-965-6000</customer_phone>
            <customer_ipaddress>http://11.1.1.111</customer_ipaddress>
            <customer_account_id>111111</customer_account_id>
         </BillTo>
         <ShipTo>
            <ship_to_firstname>JOHN</ship_to_firstname>
            <ship_to_lastname>SMITH</ship_to_lastname>
            <ship_to_address1>8310 Capitol of Texas Hwy
               </ship_to_address1>
            <ship_to_address2>Suite 100</ship_to_address2>
            <ship_to_city>Austin</ship_to_city>
            <ship_to_state>TX</ship_to_state>
            <ship_to_zip>78731</ship_to_zip>
            <ship_to_country>US</ship_to_country>
            <ship_to_company_name>Your Company</ship_to_company_name>
         </ShipTo>
         <PaymentMethod>
            <Card>
               <card_type>Visa</card_type>
               <customer_cc_expmo>01</customer_cc_expmo>
               <customer_cc_expyr>2011</customer_cc_expyr>
               <account_suffix>1111</account_suffix>
            </Card>
         </PaymentMethod>
```

```
            <PaymentData>
              <ics_applications>ics_auth,ics_bill</ics_applications>
            <recurring_payment_event_amount>99.99
              </recurring_payment_event_amount>
              <payment_processor>hsbc</payment_processor>
              <currency_code>USD</currency_code>
              <reason_code>200</reason_code>
              <auth_rcode>0</auth_rcode>
              <auth_code>JS1111</auth_code>
              <auth_type>O</auth_type>
              <auth_auth_avs>N</auth_auth_avs>
              <auth_auth_response>00</auth_auth_response>
              <auth_cavv_response>1111</auth_cavv_response>
              <ics_rcode>1</ics_rcode>
              <ics_rflag>111111111</ics_rflag>
              <ics_rmsg>1111111111</ics_rmsg>
              <request_token>5r9uxlPGppxMFEWusMJsKaWtdb444</request_token>
            </PaymentData>
            <MerchantDefinedData>
              <merchant_defined_data1>gift</merchant_defined_data1>
              <merchant_defined_data2>rush shipping</merchant_defined_
       data2>
              <merchant_defined_data3>document #1</merchant_defined_data3>
              <merchant_defined_data4>document #2</merchant_defined_data4>
            </MerchantDefinedData>
            <SubscriptionDetails>
              <recurring_payment_amount>0.00</recurring_payment_amount>
              <subscription_type>on-demand</subscription_type>
              <subscription_title>My Subscription</subscription_title>
              <last_subscription_status>CURRENT</last_subscription_status>
              <subscription_status>CURRENT</subscription_status>
              <subscription_payment_method>SW</subscription_payment_method>
              <recurring_start_date>2010-02-01 07:00:00.0</recurring_start_
       date>
              <next_scheduled_date>2010-03-01 07:00:00.0</next_scheduled_
       date>
              <event_retry_count>0</event_retry_count>
              <payments_success>0</payments_success>
              <payment_success_amount>0.00</payment_success_amount>
              <recurring_number_of_payments>0</recurring_number_of_
       payments>
              <installment_sequence>0.00</installment_sequence>
              <installment_total_count>0.00</installment_total_count>
              <recurring_frequency>on-demand</recurring_frequency>
              <recurring_approval_required>N</recurring_approval_required>
              <recurring_payment_event_approved_by>hsbc
                 </recurring_payment_event_approved_by>
              <recurring_automatic_renew>N</recurring_automatic_renew>
              <comments>0</comments>
              <setup_fee>0.00</setup_fee>
              <setup_fee_currency>USD</setup_fee_currency>
              <tax_amount>0.000000000000000</tax_amount>
              <merchant_secure_data1>0</merchant_secure_data1>
```

```
            <merchant_secure_data2>0</merchant_secure_data2>
            <merchant_secure_data3>0</merchant_secure_data3>
            <merchant_secure_data4>0</merchant_secure_data4>
        </SubscriptionDetails>
      </SubscriptionPayment>
    </SubscriptionPayments>
</Report>
```

CSV Report Format

Some subscriptions and customer profiles do not have values for all the fields in the report. If a field does not have a value, the field is omitted from the report.

CSV Conventions

The CSV conventions for the Subscription Detail Report are:

- The first and second records in the report describe the report format and provide the date range for the information in the report.

- Records are separated by a carriage return followed by a line feed.

The following table describes the data types. The data lengths indicate the maximum length of each field.

Table 16   Report Data Types

Data Type	Description
Alphanumeric	String containing letters, numbers, and special characters such as @, #, and %. All text uses UTF-8 character encoding.
Boolean	Single character: T for true or F for false.
Amount	An amount, including a decimal point if necessary.
Date	*YYYY-MM-DD*, where: - *YYYY* is the four-digit year - *MM* is the two-digit month - *DD* is the two-digit day The dashes are included in a Date value.

Table 16   Report Data Types (Continued)

Data Type	Description
Date Time	*YYYY-MM-DD*T*HH:MM:SS*[*+* │ *-*]*HH:MM*, where: ■ *YYYY* is the four-digit year. ■ *MM* is the two-digit month. ■ *DD* is the two-digit day. T*HH:MM:SS* is the time, with *HH* representing hours, *MM* representing minutes, and *SS* representing seconds. [*+* │ *-*]*HH:MM* is the time zone's offset from Greenwich Mean Time (GMT), with *HH* representing hours and *MM* representing minutes. The number is prefixed by either a plus (+) or minus (-) to indicate whether the offset adds to or subtracts from GMT. For example, the offset for Pacific Daylight Time (PDT) is -07:00. **Example** 2010-02-28T16:31:18-07:00 represents February 28, 2010 at 4:31:18 PM PDT.
Numeric	String containing numbers.

CSV Report Fields

Records:

- "First Header Record"
- "Second Header Record"
- "Transaction Record"

First Header Record

The first header record provides the report name, report version, and the date range for the information in the report.

Example   First Header Record

```
Subscription Detail Report,1.0,2010-02-12 to 2010-02-12,,,,,,,,,,,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
```

Table 17   Fields in the First Header Record

Position	Field Name	Description	Data Type & Length
1 (A)	**report_name**	Name of the report. Possible value: Subscription Detail Report	Alphanumeric (100)
2 (B)	**version_number**	Version number of the report.	Numeric (10)

Table 17   Fields in the First Header Record (Continued)

3 (C)	**date_range**	Dates included in the report in the format YYYY-MM-DD to YYYY-MM-DD. The first date is the start date; the second date is the end date.	Alphanumeric (100)

Second Header Record

The second header record provides the name of each field in the report.

Example   Second Header Record

```
merchant_id,transaction_date,ics_applications,payment_request_id,
recurring_payment_event_amount,recurring_payment_amount,currency_code,
subscription_id,merchant_ref_number,customer_account_id,subscription_
type,subscription_title,last_subscription_status,subscription_status,
subscription_payment_method,recurring_start_date,next_scheduled_date,
event_retry_count,recurring_number_of_payments,payments_success,
payment_success_amount,installment_sequence,installment_total_count,
recurring_frequency,recurring_approval_required,recurring_payment_event_
approved_by,recurring_automatic_renew,comments,setup_fee,setup_fee_
currency,tax_amount,customer_firstname,customer_lastname,bill_
address1,bill_address2,bill_city,bill_state,bill_zip,bill_country,
ship_to_address1,ship_to_address2,ship_to_city,ship_to_state,
ship_to_company_name,ship_to_country,ship_to_firstname,ship_to_lastname,
ship_to_zip,company_name,customer_email,customer_phone,customer_
ipaddress,card_type,customer_cc_expmo,customer_cc_expyr,customer_cc_
startmo,customer_cc_startyr,customer_cc_issue-number,account_suffix,ecp_
account_type,ecp_rdfi,reason_code,auth_rcode,auth_code,auth_type,auth_
auth_avs,auth_auth_response,auth_cavv_response,ics_rcode,ics_rflag,ics_
rmsg,request_token,payment_processor,e_commerce_indicator,transaction_
ref_number,merchant_defined_data1,merchant_defined_data2,merchant_
defined_data3,merchant_defined_data4,merchant_secure_data1,merchant_
secure_data2,merchant_secure_data3,merchant_secure_data4
```

Transaction Record

Each transaction record provides detailed information about a payment transaction.

Example   Transaction Record

```
infodev,2010-02-11 18:43:28.0,"ics_auth,ics_
bill",18953620762065740,99.99,
0.00,USD,18582716017405740,118588784,,on-demand,,CURRENT,CURRENT,SW,
2010-02-28 07:00:00.0,,0,0,0,0.00,0,,on-
demand,N,,N,,0.00,USD,,JOHN,SMITH,8310 Capitol of Texas Hwy North,Suite
100,Austin,TX,78731,US,8310 Capitol of Texas Hwy North,Suite
100,Austin,TX,,US,JOHN,SMITH,78731,,customer@example.com,,,Switch,01,20
10,01,07,,1111,,,200,0,JS1111,O,N,00,,,,,Afvvj5r9uxlPGppxMFE2FNaWtdbSB0
4e4rJkbTolKnjU04mAAA1w43,hsbc,M,00189193RYPE1SX,gift,rush
shipping,discount #1,discount #2,,,,,
```

Table 18 **Fields in the Transaction Record**

Position	Field Name	Field Description	Data Type & Length
1	**merchant_id**	Your CyberSource merchant ID.	String (30)
2	**transaction_date**	Date on which the transaction took place.	DateTime (25)
3	**ics_applications**	Comma-separated list of CyberSource services that were processed.	String (255)
4	**payment_request_id**	Identifier for the transaction request.	String (26)
5	**recurring_payment_ event_ amount**	Payment amount for an individual payment in an installment or recurring subscription.	String (15)
6	**recurring_payment_ amount**	Payment amount for all the payments in an installment or recurring subscription.	String (15)
7	**currency_code**	Currency used by the customer.	String (5)
8	**subscription_id**	Identifier for the subscription or customer profile.	String (26)
9	**merchant_ref_number**	Merchant-generated order reference or tracking number.	String (50)
10	**customer_account_id**	Identifier for the customer's account. You defined this value when you created the subscription or customer profile.	String (50)
11	**subscription_type**	Type of subscription or customer profile. Possible values: ▪ on-demand ▪ recurring	String (20)
12	**subscription_title**	Name or title of the subscription or customer profile.	String (60)
13	**last_subscription_status**	Status of the subscription or customer profile on the previous day.	String (20)
14	**subscription_status**	Current status of the subscription or customer profile. Possible values: ▪ hold ▪ retry ▪ cancelled ▪ current ▪ superseded	String (20)

Table 18 **Fields in the Transaction Record (Continued)**

Position	Field Name	Field Description	Data Type & Length
15	**subscription_payment_ method**	Method of payment associated with the subscription or customer profile.	String (20)
16	**recurring_start_date**	First date on which your customer is billed for an installment or recurring subscription.	DateTime (25)
17	**next_scheduled_date**	Next date on which your customer will be billed for an installment or recurring subscription.	DateTime (25)
18	**event_retry_count**	Total number of payments that are pending in retry mode.	Integer (3)
19	**recurring_number_of_ payments**	Total number of payments set up for an installment subscription.	Integer (3)
20	**payments_success**	Total count of successful payments to date.	Integer (5)
21	**payment_success_ amount**	Total amount of payments to date.	Decimal (15)
22	**installment_sequence**	Total number of payments in the schedule for an installment subscription.	Decimal (2)
23	**installment__total_count**	Total number of payments for an installment subscription. This value is used in conjunction with **installment_sequence** to keep track of the number of installments that have been billed.	Decimal (2)
24	**recurring_frequency**	Frequency of payments for the subscription or customer profile. Possible values: ■ `on-demand` ■ `weekly` ■ `bi-weekly` ■ `semi-monthly` ■ `monthly` ■ `quarterly` ■ `quad-weekly` ■ `semi annually` ■ `annually`	String (20)

Table 18   Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
25	**recurring_approval_ required**	Value indicating whether approval is required for payments for an installment or recurring subscription. Possible values: ■ true: Payments must be approved before processing. ■ false: Payments do not need to be approved before processing.	String (6)
26	**recurring_payment_ event_ approved_by**	Name of the person or financial institution that approved the payment.	String (30)
27	**recurring_automatic_ renew**	Flag indicating whether to automatically renew the payment schedule for an installment subscription. Possible values: ■ true: Subscription schedule is renewed automatically. ■ false: Subscription schedule is not renewed automatically.	String (5)
28	**comments**	Optional comments you can include for the subscription or customer profile.	String (255)
29	**setup_fee**	Fee that was charged to your customer when the installment or recurring subscription was created.	Decimal (15)
30	**setup_fee_currency**	Currency of the setup fee.	String (3)
31	**tax_amount**	Total amount of tax to be applied to the product.	Decimal (15)
32	**customer_firstname**	First name of the customer.	String (60)
33	**customer_lastname**	Last name of the customer.	String (60)
34	**bill_address1**	First line of the billing street address as it appears on the issuer's records.	String (60)
35	**bill_address2**	Second line of the billing street address. Used for additional address information.	String (60)
36	**bill_city**	City of the customer.	String (50)
37	**bill_state**	State or province of the customer's billing address.	String (2)
38	**bill_zip**	Zip code of the customer.	String (10)
39	**bill_country**	Country of the customer.	String (2)

Table 18 **Fields in the Transaction Record (Continued)**

Position	Field Name	Field Description	Data Type & Length
40	**ship_to_address1**	First line of shipping address.	String (60)
41	**ship_to_address2**	Second line of shipping address.	String (60)
42	**ship_to_city**	City of shipping address.	String (60)
43	**ship_to_state**	State or province of shipping address.	String (2)
44	**ship_to_company_name**	Company to which the product will be shipped.	String (60)
45	**ship_to_country**	Country of shipping address.	String (2)
46	**ship_to_firstname**	First name of the person receiving the product.	String (60)
47	**ship_to_lastname**	Last name of the person receiving the product.	String (60)
48	**ship_to_zip**	Postal code of shipping address.	String (10)
49	**company_name**	Company name of the customer.	String (40)
50	**customer_email**	Email address of the customer.	String (255)
51	**customer_phone**	Phone number of the customer.	String (20)
52	**customer_ipaddress**	IP address of the customer.	String (15)
53	**card_type**	Card type used for the transaction.	String (3)
54	**customer_cc_expmo**	Expiration month of the card.	Integer (2)
55	**customer_cc_expyr**	Expiration year of the card.	Integer (4)
56	**customer_cc_startmo**	Starting month of the card validity period for Maestro (UK Domestic) if the card has a start date printed on it.	Integer (2)
57	**customer_cc_startyr**	Starting year of the card validity period for Maestro (UK Domestic) if the card has a start year printed on it.	Integer (4)
58	**customer_cc_issue-number**	Indicates how many times a Maestro (UK Domestic) card has been issued to the account holder.	String (5)
59	**account_suffix**	Last four digits of the customer's account number.	String (4)
60	**ecp_account_type**	Account type. Possible values: ■ C: Checking ■ S: Savings (USD only) ■ X: Corporate Checking (USD only)	String (1)

Table 18   Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
61	**ecp_rdfi**	Bank routing /transit number.	Non-negative Integer (9)
62	**reason_code**	Reason code that indicates why the subscription or customer profile payment succeeded or failed. For details, see the appendix of reason codes in the documentation for the relevant payment method.	Numeric (3)
63	**auth_rcode**	Indication of whether the authorization was successful.	Integer (1)
64	**auth_code**	Code returned from a processor for an approved authorization.	String (6)
65	**auth_type**	Specifies that an authorization was obtained outside the CyberSource system. This value is used with forced captures.	String (6)
66	**auth_auth_avs**	Result of AVS fraud check.	String (1)
67	**auth_auth_response**	Response sent from the processor.	String (10)
68	**auth_cavv_response**	Result of the CVN fraud check.	String (10)
69	**ics_rcode**	One-digit code that indicates whether the entire request was successful.	Integer (1)
70	**ics_rflag**	One-word description of the result of the entire request.	String (50)
71	**ics_rmsg**	Message that explains the **ics_flag** reply flag.	String (255)
72	**request_token**	Request token value returned from a request.	String (256)
73	**payment_processor**	Name of the financial institution that processed the transaction.	String (40)
74	**e_commerce_indicator**	Type of transaction. Possible values: ■ `internet` (default) ■ `moto` ■ `retail`	String (13)
75	**transaction_ref_number**	Identifier for the transaction.	String (64)

Table 18   Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
76-79	**merchant_defined_data1** **merchant_defined_data2** **merchant_defined_data3** **merchant_defined_data4**	Four fields that merchants can use to store information. **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, 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. **Note** If you are creating a subscription or customer profile based on an authorization, the merchant-defined data fields do not get transferred to the new subscription or customer profile.	String (255)
80-83	**merchant_secure_data1** **merchant_secure_data2** **merchant_secure_data3** **merchant_secure_data4**	Storage fields for any type of data.	String (100)

CSV Report Sample

```
Subscription Detail Report,1.0,2010-02-12 to 2010-02-12,,,,,,,,,,,,,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,merchant_id,transaction_date,
ics_applications,payment_request_id,recurring_payment_event_amount,
recurring_payment_amount,currency_code,subscription_id,
merchant_ref_number,customer_account_id,subscription_type,
subscription_title,last_subscription_status,subscription_status,
subscription_payment_method,recurring_start_date,next_scheduled_date,
event_retry_count,recurring_number_of_payments,payments_success,
payment_success_amount,installment_sequence,installment_total_count,
recurring_frequency,recurring_approval_required,recurring_payment_
event_approved_by,recurring_automatic_renew,comments,setup_fee,
setup_fee_currency,tax_amount,customer_firstname,customer_lastname,
bill_address1,bill_address2,bill_city,bill_state,bill_zip,
bill_country,ship_to_address1,ship_to_address2,ship_to_city,
ship_to_state,ship_to_company_name,ship_to_country,ship_to_firstname,
ship_to_lastname,ship_to_zip,company_name,customer_email,
customer_phone,customer_ipaddress,card_type,customer_cc_expmo,
customer_cc_expyr,customer_cc_startmo,customer_cc_startyr,
customer_cc_issue-number,account_suffix,ecp_account_type,ecp_rdfi,
reason_code,auth_rcode,auth_code,auth_type,auth_auth_avs,
auth_auth_response,auth_cavv_response,ics_rcode,ics_rflag,ics_rmsg,
request_token,payment_processor,e_commerce_indicator,
transaction_ref_number,merchant_defined_data1,merchant_defined_data2,
merchant_defined_data3,merchant_defined_data4,merchant_secure_data1,
merchant_secure_data2,merchant_secure_data3,merchant_secure_data4
infodev,2010-02-11 18:43:28.0,"ics_auth,ics_bill",18953620762065740,
99.99,0.00,USD,185827160174065740,118588784,,on-demand,,CURRENT,
CURRENT,SW,2010-02-28 07:00:00.0,,0,0,0,0.00,0,,on-demand,N,,N,,0.00,
USD,,JOHN,SMITH,8310 Capitol of Texas Hwy North,Suite 100,Austin,TX,
78731,US,8310 Capitol of Texas Hwy North,Suite 100,Austin,TX,,
US,JOHN,SMITH,78731,,customer@example.com,,,Switch,01,2010,01,07,,
1111,,,200,0,JS1111,O,N,00,,,,,,Afvvj5r9uxlPGppxbSB04e4rJknx81+3YynjU0
4mAAA1w43,hsbc,M,00189193RYPE1SX,gift,rush shipping,discount #1,
discount #2,,,,,
infodev,2010-02-11 18:49:36.0,ics_auth,18953657621065740,49.99,0.00,
USD,185827143974065740,118588784,,on-demand,,CURRENT,CURRENT,SW,
2010-02-28 07:00:00.0,,0,0,0,0.00,0,,on-demand,N,,N,,0.00,USD,,JOHN,
SMITH,8310 Capitol of Texas Hwy North,Suite 100,Austin,TX,78731,US,
8310 Capitol of Texas Hwy North,Suite 100,Austin,TX,,US,JOHN,SMITH,
78731,,customer@example.com,,,Switch,01,2010,01,07,,1111,,,200,0,
JS1111,O,N,00,,,,,,Afvvj5r973pjupIRxWTI2nRKUas9KsBPj5r973pjupIRMA
AA2xQH,hsbc,M,00189195RYPE1T0,gift,rush shipping,discount #1,
discount #2,,,,,
```

Testing Your System

You can test your system against the CyberSource test server or production server. You need to configure your client to send the transactions to the correct server. See your client documentation for instructions on doing this.

If you are using the test server, use test card numbers or test account numbers depending on the payment method you are testing. Search for and view your test subscriptions and customer subscriptions in the test version of the Business Center at:

https://ebctest.cybersource.com.

If you are using the production server, use real card numbers or real account numbers depending on the payment method you are testing. Create customer subscriptions that use small amounts, such as 1.50, and frequent payments, such as weekly. Search for and view your live customer subscriptions in the production version of the Business Center at:

https://ebc.cybersource.com.

CyberSource recommends that, if you use the customer email notifications, you test them to make sure the content and formatting of your messages are displayed the way you want. See "Setting Up Email Notifications," page 50.

![Note]
Note

The API services do not have any special amounts to use when you are testing your system to trigger specific responses and error conditions for customer subscriptions.

API Fields

> **Note**
>
> In the API field tables, the service names are shortened to Create, Delete, ProfileUpdate, EventUpdate, and Retrieve.

Data Types

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

Table 19   Data Types for the Simple Order API

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

Request Fields for All Payment Methods

Table 20   Request Fields for All Payment Methods for the Simple Order API

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
billTo_city	City in the billing address.	Create (R) ProfileUpdate (O)	String (50)
billTo_country	Country code for the billing address. Use the two-character ISO country codes.	Create (R) ProfileUpdate (O)	String (2)
billTo_customerID	Your identifier for the customer. When a subscription is created, the maximum length for this field is 30 characters. Otherwise, the maximum length is 50.	Create (O) ProfileUpdate (O)	String (30 or 50)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
billTo_email	Customer's email address.	Create (R) ProfileUpdate (O)	String (255)
billTo_firstName	Customer's first name.	Create (R) ProfileUpdate (O)	String (60)
billTo_lastName	Customer's last name.	Create (R) ProfileUpdate (O)	String (60)
billTo_phoneNumber	Customer's phone number. When you create a subscription, the requirements depend on the payment method: ■ *Credit cards*—Optional. ■ *Electronic checks*—Required with this exception: Required for Chase Paymentech Solutions or FDC Compass only when using eFunds ID Verification. ■ *PINless debits*—Optional.	Create (See description) ProfileUpdate (O)	String (20)

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
		Create (R)
		
		ProfileUpdate (O)
			String (10)

billTo_state	State or province in the billing address. Use the two-character ISO state and province codes.	Create (R) ProfileUpdate (O)	String (2)
billTo_street1	First line of the billing address.	Create (R) ProfileUpdate (O)	String (60)
billTo_street2	Second line of the billing address.	Create (O) ProfileUpdate (O)	String (60)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
comments	Optional comments you have for the subscription or customer profile. These comments will not be shown to the customer unless you include them in the email notifications. See "Setting Up Email Notifications," page 50. **Warning** Do not use this field to store sensitive customer information.	Create (O) ProfileUpdate (O)	String (255)
decisionManager_ enabled	Indicates whether to use Decision Manager for a subscription. Use this field only if you are using Decision Manager and are configured to use automatic preauthorizations as described in "Preauthorizations," page 24. Also see "Working with Fraud Checks," page 28. By default, Decision Manager will be used on the preauthorization that occurs before the subscription is created. You can use this field to turn off Decision Manager for the preauthorization for this specific subscription. Possible values: ▪ false: Do not use Decision Manager for this subscription. ▪ true (default): Use Decision Manager for this subscription. For more information about Decision Manager, see the *Decision Manager Developer Guide.*	Create (O)	String (5)
ignoreCardExpiration	Indicates whether to ignore a card expiration date when creating a subscription. Possible values: ▪ false: Do not ignore the card expiration date. ▪ true: Ignore the card expiration date. **Note** If set to `true`, the **paySubscriptionCreateService_ disableAutoAuth** field must also be set to `true`.	Create (O)	String (5)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
item_0_unitPrice	Use this field or **purchaseTotals_ grandTotalAmount** to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Charging a Setup Fee," page 28 and "Preauthorizations," page 24.	Create (See description) ProfileUpdate (O)	String (15)
merchantDefinedData_ field1 **merchantDefinedData_ field2** **merchantDefinedData_ field3** **merchantDefinedData_ field4**	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 Storage Data," page 31. **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. **Note** If you are creating a subscription based on an existing transaction, the merchant-defined data fields do not get transferred to the new subscription.	Create (O) ProfileUpdate (O)	String (255)
merchantID	Your CyberSource merchant ID.	Required for all services	String (30)
merchantReference Code	Merchant-generated order reference or tracking number.	Required for all services	String (50)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
merchantSecureData_ field1 **merchantSecureData_ field2** **merchantSecureData_ field3**	Storage fields for any type of data. The only validation performed on these fields is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Storage Data," page 31.	Create (O) ProfileUpdate (O)	String (100)
merchantSecureData_ field4	Storage field for any type of data. The only validation performed on this field is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Storage Data," page 31. **Note** The maximum number of characters allowed is 183 or less.	Create (O) ProfileUpdate (O)	String (2K)
paySubscriptionCreate Service_disableAuto Auth	Indicates whether to turn off the preauthorization check when creating this subscription or customer profile, as described in "Preauthorizations," page 24. Use this field if your CyberSource account is configured for automatic preauthorizations but for this specific subscription or customer profile you want to override that setting. Possible values: ▪ false: No, go ahead and perform the preauthorization for this subscription. ▪ true: Yes, turn off the preauthorization check for this subscription.	Create (O)	String (5)
paySubscriptionCreate Service_run	Indicates whether to include **paySubscriptionCreateService** in your request. Possible values: ▪ true: Include the service in your request. ▪ false (default): Do not include the service in your request. See "," page 16.	Create (R)	String (5)
paySubscriptionDelete Service_run	Indicates whether to include **paySubscriptionDeleteService** in your request. Possible values: ▪ true: Include the service in your request. ▪ false (default): Do not include the service in your request. See "Deleting a Customer Subscription," page 60.	Delete (R)	String (5)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
paySubscriptionEvent UpdateService_action	Action to perform for the payment that is being updated. Possible values: ■ 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. See "Approving or Changing Individual Payments," page 41 and "Adding, Skipping, or Unskipping Payments," page 39.	EventUpdate (O)	String (9)
paySubscriptionEvent UpdateService_run	Indicates whether to include **paySubscriptionEventUpdateService** in your request. Possible values: ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Updating a Customer Subscription," page 37.	EventUpdate (R)	String (5)
paySubscription RetrieveService_run	Indicates whether to include **paySubscriptionRetrieveService** in your request. Possible values: ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Retrieving a Customer Subscription," page 37.	Retrieve (R)	String (5)
paySubscriptionUpdate Service_run	Indicates whether to include **paySubscriptionUpdateService** in your request. Possible values: ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Updating a Customer Subscription," page 37.	ProfileUpdate (R)	String (5)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
purchaseTotals_ currency	Currency used by the customer.	Create (R) ProfileUpdate (O)	String (5)
purchaseTotals_grand TotalAmount	Use this field or **item_0_unitPrice** to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Charging a Setup Fee," page 28 and "Preauthorizations," page 24.	Create (See description) ProfileUpdate (O)	String (15)
recurringSubscription Info_amount	Amount of the subscription or customer profile payments. For on-demand profiles, this value can be 0. Create: Required for installment and recurring subscriptions; optional for on-demand profiles.	Create (See description) ProfileUpdate (O)	String (15)
recurringSubscription Info_approvalRequired	Indicates if the subscription uses approval-required payments. See "Automatic Payments or Payments Requiring Approval," page 34. Possible values: ▪ true: Payments must be approved before processing. ▪ false (default): Payments do not need to be approved before processing.	Create (O) ProfileUpdate (O)	String (5)
recurringSubscription Info_automaticRenew	Indicates whether to automatically renew the payment schedule for the subscription. Possible values: ▪ true (default): Automatically renew the subscription schedule. ▪ false: Do not automatically renew the subscription schedule. **Warning** The default is automatic renewal. When creating an installment subscription, if you do not set this to false, CyberSource will continue billing the customer after the last installment payment.	Create (O) ProfileUpdate (O)	String (5)
recurringSubscription Info__event_amount	Amount of the individual payment.	EventUpdate (O)	String (15)
recurringSubscription Info_event_approvedBy	Name of the financial institution or person who is approving the payment. See "Approving or Changing Individual Payments," page 41.	EventUpdate (O)	String (30)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
recurringSubscription Info_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 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.	EventUpdate (R)	Integer (4)
recurringSubscription Info_frequency	Frequency of payments for the subscription or customer profile. Possible values: ■ on-demand: No payment schedule; valid only for on-demand profiles ■ weekly: 7 days ■ bi-weekly: 14 days ■ semi-monthly: 15 days ■ monthly: 1 month ■ quarterly: 3 months ■ quad-weekly: 4 weeks ■ semiannually: 26 weeks ■ annually: 1 year	Create (R)	String (20)
recurringSubscription Info_numberOf Payments	Total number of payments for the duration of the installment subscription. The maximum allowed value is 260 payments, which is the equivalent of 5 years of weekly payments. ■ 52: weekly ■ 26: bi-weekly ■ 24: semi-monthly ■ 13: quad-weekly ■ 12: monthly ■ 4: quarterly ■ 2: semi-annually ■ 1: annually ■ 0: on demand	Create (Required for installment subscriptions; otherwise, not used.)	Integer (3)
recurringSubscription Info_numberOf PaymentsToAdd	Number of payments to add to an existing installment subscription. The maximum allowed value is 260 payments, which is the equivalent of 5 years of weekly payments.	ProfileUpdate (O)	Integer (3)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
recurringSubscription Info_startDate	Date when your customer is billed for the first time for an installment or recurring subscription. See "Start Date for Payments," page 32. Format YYYYMMDD	Create (O)	String (10)
recurringSubscription Info_endDate	Date when your customer is billed for the last time for an installment or recurring subscription. Format: YYYYMMDD	Create (O)	String (10)
recurringSubscription Info_status	Status for the installment or recurring subscription. Possible value: cancel: Cancel all future scheduled payments for the subscription. See "Cancelling Subscription Payments," page 42.	ProfileUpdate (O)	String (15)
recurringSubscription Info_subscriptionID	Value that identifies the subscription or customer profile for which the service is being requested. This value was sent to you when the subscription or customer profile was created.	EventUpdate (R) ProfileUpdate (R) Retrieve (R)	String (26)
shipTo_city	City in the shipping address.	Create (O) ProfileUpdate (O)	String (50)
shipTo_company	Name of the company that is receiving the product.	Create (O)	String (60)
shipTo_country	Country code for the shipping address. Use the two-character ISO country codes.	Create (O) ProfileUpdate (O)	String (2)
shipTo_firstName	First name of the person receiving the product.	Create (O) ProfileUpdate (O)	String (60)
shipTo_lastName	Last name of the person receiving the product.	Create (O) ProfileUpdate (O)	String (60)

Table 20   Request Fields for All Payment Methods for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length

shipTo_postalCode	Postal code of 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 will use 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)
		
		ProfileUpdate (O)
			String (10)

shipTo_state	State or province of the shipping address. Use the two-character ISO state and province codes.	Create (O) ProfileUpdate (O)	String (2)
shipTo_street1	First line of the shipping address.	Create (O) ProfileUpdate (O)	String (60)
shipTo_street2	Second line of the shipping address.	Create (O) ProfileUpdate (O)	String (60)
subscription_payment Method	Method of payment. See "Payment Methods," page 12. Possible values: ■ credit card (default when creating a subscription or customer profile) ■ check ■ other ■ pinless debit Create: This field is required when creating a subscription or customer profile with a payment method other than credit card.	Create (See description) ProfileUpdate (O)	String (20)
subscription_title	Name or title for the subscription.	Create (O) ProfileUpdate (O)	String (60)

Additional Request Fields for Credit Cards

Table 21   Additional Request Fields for Credit Cards for the Simple Order API

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
businessRules_decline AVSFlags	List of AVS codes that cause the subscription or customer profile creation request to be declined for AVS reasons. Use a space to separate the codes in the list. Use this field only if you are using automatic preauthorization. See "Preauthorizations," page 24 and Appendix D, "AVS Codes," on page 133. **Important** You must include the value N in the list if you want to receive declines for the AVS code N.	Create (O)	String (255)
businessRules_ignore AVSResult	Indicates if CyberSource should ignore the results of the AVS check and create the subscription or customer profile even if the credit card does not pass the AVS check. Use this field only if you are using automatic preauthorization. Possible values: ■ true: Ignore the results of the AVS check and create the subscription or customer profile. ■ false (default): If the AVS check fails, do not create the subscription or customer profile. When this value is true, the list in the **businessRules_declineAVSFlags** field is ignored.	Create (O)	String (5)
card_accountNumber	Card account number.	Create (R) ProfileUpdate (O)	String with numbers only (20)

Table 21   Additional Request Fields for Credit Cards for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_cardType	Type of card to authorize. To see which cards can be handled by each processor, see the information about payment processors in *Credit Card Services Using the Simple Order API*, which is available on the Support Center. Possible values:	Create (R) ProfileUpdate (O)	String (3)
	■ 001: Visa		
	■ 002: MasterCard, Eurocard—European regional brand of MasterCard		
	■ 003: American Express		
	■ 004: Discover		
	■ 005: Diners Club		
	■ 006: Carte Blanche		
	■ 007: JCB		
	■ 014: EnRoute		
	■ 021: JAL		
	■ 024: Maestro (UK Domestic)		
	■ 031: Delta—Use this value only for Global Collect. For other processors, use 001 for all Visa card types.		
	■ 033: Visa Electron		
	■ 034: Dankort		
	■ 035: Laser		
	■ 036: Carte Bleu		
	■ 037: Carta Si		
	■ 042: Maestro (International)		
	■ 043: GE Money UK card—Before setting up your system to work with GE Money UK cards, contact the CyberSource UK Support Group.		

Table 21   Additional Request Fields for Credit Cards for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_cvIndicator	Indicates if a card verification number was included in the request. Possible values: ■ 0 (default): CVN service not requested. This default is used if you do not include card_cvNumber in the request. ■ 1 (default): CVN service requested and supported. This default is used if you include card_cvNumber in the request. ■ 2: CVN on credit card is illegible. ■ 9: CVN was not imprinted on credit card.	Create (O)	String with numbers only (1)
card_cvNumber	Card verification number. Include this field only if you are using automatic preauthorization and want to run the CVN check. See "Preauthorizations," page 24 and "Working with Fraud Checks," page 28. Do not include this field if you are creating a subscription or customer profile that uses Global Collect.	Create (O)	String with numbers only (4)
card_expirationMonth	Expiration month. Format: MM	Create (R) ProfileUpdate (O)	String (2)
card_expirationYear	Expiration year. Format: YYYY	Create (R) ProfileUpdate (O)	String (4)
card_issueNumber	Indicates how many 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) ProfileUpdate (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 through 12	Create (See description) ProfileUpdate (O)	Integer (2)

Table 21 Additional Request Fields for Credit Cards for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
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) ProfileUpdate (O)	Integer (4)
orderRequestToken	The **requestToken** value returned from a previous request for a credit card authorization. This value links the previous request to the current follow-on request. This field is an encoded string that does not contain any confidential information, such as account numbers or card verification numbers. The string can contain up to 256 characters. You must include this field or **paySubscriptionCreateService_ paymentRequestToken** when converting an existing authorization to a subscription or customer profile.	Create (See description)	String (256)
paySubscriptionCreate Service_payment RequestID	The **requestID** value returned from a previous request for a credit card authorization. This value links the previous request to the current follow-on request. This field is required when converting an existing authorization to a subscription or customer profile.	Create (O)	String (26)
paySubscriptionCreate Service_payment RequestToken	The **requestToken** value returned from a previous request for a credit card authorization. This value links the previous request to the current follow-on request. This field is an encoded string that does not contain any confidential information, such as account numbers or card verification numbers. The string can contain up to 256 characters. You must include this field or **orderRequestToken** when converting an existing authorization to a subscription or customer profile.	Create (See description)	String (256)

Table 21   Additional Request Fields for Credit Cards for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
recurringSubscription Info_billPayment	Flag that indicates that this is a payment for a bill or for an existing contractual loan. See "Flagging Payments for Visa Bill Payment Program," page 30. This value is case sensitive. Possible values: ■ false (default): Not a bill payment or loan payment. ■ true: Bill payment or loan payment.	Create (O) ProfileUpdate (O)	String (1)

Additional Request Fields for Electronic Checks

Table 22   Additional Request Fields for Electronic Checks for the Simple Order API

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
billTo_company	Name of the customer's company.	Create (O) [1] ProfileUpdate (O)	String (40)
billTo_companyTaxID	Tax identifier for the customer's company.	Create (O) [1] ProfileUpdate (O)	String with numbers only (9)
billTo_dateOfBirth	Customer's date of birth. Format: YYYY-MM-DD or YYYYMMDD	Create (O) ProfileUpdate (O)	String (10)
billTo_driversLicense Number	Customer's driver's license number.	Create (O) [1] ProfileUpdate (O)	String (30)
billTo_driversLicense State	State or province in which the customer's driver's license was issued. Use the two-character ISO state and province codes.	Create (O) [1] ProfileUpdate (O)	String (2)
check_accountNumber	Checking account number.	Create (R) ProfileUpdate (O)	String with numbers only (17)

(1) For TeleCheck personal checks, you must provide **billTo_driversLicenseNumber** and **billTo_driversLicenseState**. For TeleCheck corporate checks, you must provide either:
- billTo_driversLicenseNumber and **billTo_driversLicenseState**
or
- billTo_companyTaxID

Table 22   Additional Request Fields for Electronic Checks for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
check_accountType	Checking account type. Possible values: ■ C: Checking ■ S: Savings (U.S. dollars only) ■ X: Corporate checking (U.S. dollars only)	Create (R) ProfileUpdate (O)	String (1)

(1) For TeleCheck personal checks, you must provide **billTo_driversLicenseNumber** and **billTo_driversLicenseState**. For TeleCheck corporate checks, you must provide either:
- billTo_driversLicenseNumber and **billTo_driversLicenseState**
or
- billTo_companyTaxID

Table 22   Additional Request Fields for Electronic Checks for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
check_secCode	Code that specifies the authorization method for the transaction. Possible values: ■ CCD: Corporate cash disbursement—A charge or credit against a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. Note: Corporate cash disbursement is available via all processors except TeleCheck. ■ PPD: Prearranged payment and deposit entry—A charge or credit against a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions and a written standing authorization is required for recurring transactions. ■ TEL: Telephone-initiated entry—A one-time charge against a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. There is no Recurring Billing option for TEL. ■ WEB: Internet-initiated entry—A charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet.	Create (R) ProfileUpdate (O)	String (3)

(1) For TeleCheck personal checks, you must provide **billTo_driversLicenseNumber** and **billTo_driversLicenseState**. For TeleCheck corporate checks, you must provide either:
- billTo_driversLicenseNumber and **billTo_driversLicenseState**
or
- billTo_companyTaxID

Table 22   Additional Request Fields for Electronic Checks for the Simple Order API (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
check_bankTransit Number	Bank routing number. This value is also known as the *transit number*.	Create (R) ProfileUpdate (O)	String with numbers only (9)

(1) For TeleCheck personal checks, you must provide **billTo_driversLicenseNumber** and **billTo_driversLicenseState**. For TeleCheck corporate checks, you must provide either:
- billTo_driversLicenseNumber and **billTo_driversLicenseState**
or
- billTo_companyTaxID

Additional Request Fields for PINless Debits

Table 23   Additional Request Fields for PINless Debits for the Simple Order API

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_accountNumber	Card account number.	Create (R) ProfileUpdate (O)	String with numbers only (20)
card_expirationMonth	Expiration month. Format: MM	Create (R) ProfileUpdate (O)	String (2)
card_expirationYear	Expiration year. Format: YYYY	Create (R) ProfileUpdate (O)	String (4)

Reply Fields for All Services

⚠️ **Important**	If you include a payment transaction, such as a credit card authorization or electronic check debit, in your request to create a subscription or customer profile, you will receive additional reply fields from the requested payment services. For information about these reply fields, see the documentation for the payment services you requested.

For information about many of these reply fields, see the information about handling replies in Center.

Table 24   Reply Fields for All Services for the Simple Order API

Field Name	Description	Returned By	Data Type & Length
decision	Summarizes the overall results for the request. Possible values: ■ ACCEPT ■ ERROR ■ REJECT	All services	String (6)
invalidField_0...N	Fields in the request that contained invalid values. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
merchantReference Code	Order reference or tracking number that you provided in the request.	All services	String (50)
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
paySubscriptionCreate Reply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	Create	Integer (5)
paySubscriptionCreate Reply_subscriptionID	Identifier for the subscription or customer profile.	Create	String (26)
paySubscriptionDelete Reply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	Delete	Integer (5)
paySubscriptionDelete Reply_subscriptionID	Identifier for the subscription or customer profile.	Delete	String (26)

Table 24   Reply Fields for All Services for the Simple Order API (Continued)

Field Name	Description	Returned By	Data Type & Length
paySubscriptionEvent UpdateReply_owner MerchantID	CyberSource merchant ID that was used to create the 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 subscription that was created with a CyberSource merchant ID for which sharing is enabled. See "Subscription Sharing," page 57.	EventUpdate	String (30)
paySubscriptionEvent UpdateReply_reason Code	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	EventUpdate	Integer (5)
paySubscription RetrieveReply_owner MerchantID	CyberSource merchant ID that was used to create the subscription or customer profile 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 subscription or customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See "Subscription Sharing," page 57.	Retrieve	String (30)
paySubscription RetrieveReply_ subscriptionID	Identifier for the subscription or customer profile.	Retrieve	String (16 or 26)
paySubscription RetrieveReply_ subscriptionIDNew	Identifier for the subscription or customer profile. **Note** This 16-digit subscription ID supersedes the previous subscription ID for the same subscription or customer profile.	Retrieve	String (16)
paySubscription RetrieveReply_reason Code	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	Retrieve	Integer (5)
paySubscription UpdateReply_owner MerchantID	CyberSource merchant ID that was used to create the subscription or customer profile 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 subscription or customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See "Subscription Sharing," page 57.	ProfileUpdate	String (30)
paySubscriptionUpdate Reply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	ProfileUpdate	Integer (5)
paySubscriptionUpdate Reply_subscriptionID	Identifier for the subscription or customer profile.	ProfileUpdate	String (16 or 26)

Table 24   Reply Fields for All Services for the Simple Order API (Continued)

Field Name	Description	Returned By	Data Type & Length
paySubscriptionUpdate Reply_ subscriptionIDNew	Identifier for the subscription or customer profile. **Note** This 16-digit subscription ID supersedes the previous subscription ID for the same subscription or customer profile.	ProfileUpdate	String (16)
reasonCode	Numeric value corresponding to the result of the entire request. See Appendix C, "Reason Codes for the Simple Order API," on page 130.	All services	Integer (5)
requestID	Identifier for the request.	All services	String (26)
requestToken	Request token data created by CyberSource for each reply. You need to store the contents of this field so that you can retrieve and send it in follow-on requests. The field is an encoded string that contains no confidential information, such as an account or card verification number. The string can contain up to 256 characters.	All Services	String (256)

Additional Reply Fields for the Retrieve Service

Table 25   Additional Reply Fields for the Retrieve Service for the Simple Order API

Field Name	Description	Data Type & Length
Reply Fields for All Payment Methods		
paySubscription RetrieveReply_approval Required	Indicates if the installment or recurring subscription uses approval-required payments. Possible values: ■ true: Payments require approval. ■ false: Payments do not require approval, which means that they are automatic. See "Automatic Payments or Payments Requiring Approval," page 34. **Note** This field is not meaningful for customer profiles.	String (5)
paySubscription RetrieveReply_ automaticRenew	Indicates if the installment subscription will be automatically renewed. Possible values: ■ true: The subscription is renewed automatically. ■ false: The subscription is not renewed automatically. For recurring subscriptions, this value will always be true. See "Automatic Payments or Payments Requiring Approval," page 34. **Note** This field is not meaningful for customer profiles.	String (5)
paySubscription RetrieveReply_city	City in the customer's address.	String (50)
paySubscription RetrieveReply_ comments	Comments you included for the subscription or customer profile.	String (255)
paySubscription RetrieveReply_country	Country code for the billing address. The two-character ISO country codes.	String (2)
paySubscription RetrieveReply_currency	Currency used by the customer.	String (5)
paySubscription RetrieveReply_ customerAccountID	Your identifier for the customer.	String (50)
paySubscription RetrieveReply_email	Customer's email address.	String (255)

Table 25   Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_endDate	End date for the installment subscription. For recurring subscriptions, this field will be the subscription's start date because recurring subscriptions do not have an end date. Format: YYYYMMDD **Note** This field is not meaningful for customer profiles.	String (8)
paySubscription RetrieveReply_first Name	Customer's first name.	String (60)
paySubscription RetrieveReply_ frequency	Frequency of payments for the subscription or customer profile. Possible values: ■ on-demand: No payment schedule; valid only for on-demand profiles ■ weekly: 7 days ■ bi-weekly: 14 days ■ semi-monthly: 15 days ■ monthly: 1 month ■ quarterly: 3 months ■ quad-weekly: 4 weeks ■ semi-annually: 26 weeks ■ annually: 1 year	String (20)
paySubscription RetrieveReply_last Name	Customer's last name.	String (60)
paySubscription RetrieveReply_ merchantDefinedData Field1 **paySubscription RetrieveReply_ merchantDefinedData Field2** **paySubscription RetrieveReply_ merchantDefinedData Field3** **paySubscription RetrieveReply_ merchantDefinedData Field4**	Four fields for storing information. To understand the kinds of data storage fields, see "Optional Storage Data," page 31.	String (64)

Table 25   Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_ merchantReference Code	Merchant-generated order reference or tracking number.	String (50)
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 Storage Data," page 31.	String (100)
paySubscription RetrieveReply_ merchantSecureData Field2		
paySubscription RetrieveReply_ merchantSecureData Field3		
paySubscription RetrieveReply_ merchantSecureData Field4	Data that was encrypted. CyberSource decrypts the data before returning it. See "Optional Storage Data," page 31.	String (2K)
paySubscription RetrieveReply_ paymentsRemaining	Number of payments remaining in the schedule for an installment subscription. For a recurring subscription, this value will be 0. **Note** This field is not meaningful for customer profiles.	Integer (3)
paySubscription RetrieveReply_ phoneNumber	Customer's phone number.	String (20)
paySubscription RetrieveReply_ _postalCode	Postal code of the billing address.	String (10)
paySubscription RetrieveReply_ recurringAmount	Payment amount for the subscription or customer profile.	String (15)
paySubscription RetrieveReply_setup Amount	Amount of the setup fee.	String (15)
paySubscription RetrieveReply_shipTo City	City of the shipping address.	String (50)
paySubscription RetrieveReply_shipTo Company	Name of the company that is receiving the product.	String (60)

Table 25 Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_shipTo Country	Country code of the shipping address. The two-character ISO state and province codes.	String (2)
paySubscription RetrieveReply_shipTo FirstName	First name of the person receiving the product.	String (60)
paySubscription RetrieveReply_shipTo LastName	Last name of the person receiving the product.	String (60)
paySubscription RetrieveReply_shipTo PostalCode	Postal code of the shipping address.	String (10)
paySubscription RetrieveReply_shipTo State	State or province in the shipping address. The two-character ISO state and province codes.	String (2)
paySubscription RetrieveReply_shipTo Street1	First line of the street address in the shipping address.	String (60)
paySubscription RetrieveReply_shipTo Street2	Second line of the street address in the shipping address.	String (60)
paySubscription RetrieveReply_start Date	Start date for an installment or recurring subscription. See "Start Date for Payments," page 32. Format: YYYYMMDD **Note** This field is not meaningful for customer profiles.	String (8)
paySubscription RetrieveReply_state	State or province in the billing address. The two-character ISO state and province codes.	String (2)
paySubscription RetrieveReply_status	Status of the subscription or customer profile. Possible values: ■ Cancelled: The subscription or customer profile has been cancelled. ■ Completed: The payment schedule has been completed and no more payments are scheduled. ■ Current: The subscription or customer profile is active ■ Hold: The subscription is on hold. See "Handling Exceptions," page 54. ■ Superseded: The subscription or customer profile has been updated and a new subscription ID has been assigned to it.	String (9)
paySubscription RetrieveReply_street1	First line of the billing address.	String (60)
paySubscription RetrieveReply_street2	Second line of the billing address.	String (60)

Table 25   Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_ subscriptionID	Subscription ID.	String (26)
paySubscription RetrieveReply_title	Name or title for the subscription or customer profile.	String (60)
paySubscription RetrieveReply_total Payments	Total number of payments in the schedule for an installment subscription. For a recurring subscription, this value will be 0. **Note** This field is not meaningful for customer profiles.	Integer (3)
Additional Reply Fields for Credit Cards		
paySubscription RetrieveReply_bill Payment	Indicates if the payments for this subscription or customer profile are for the Visa Bill Payment program. Possible values: N (default): Not a Visa Bill Payment. Y: Visa Bill Payment. See "Flagging Payments for Visa Bill Payment Program," page 30.	String (1)
paySubscription RetrieveReply_card AccountNumber	Card account number.	String (20)
paySubscription RetrieveReply_card ExpirationMonth	Expiration month for the card. Format: MM	Integer (2)
paySubscription RetrieveReply_card ExpirationYear	Expiration year for the card. Format: YYYY	Integer (4)
paySubscription RetrieveReply_card IssueNumber	Issue number for the Maestro (UK Domestic) card.	String (5)
paySubscription RetrieveReply_card StartMonth	Start month for the Maestro (UK Domestic) card. Format: MM	Integer (2)
paySubscription RetrieveReply_card StartYear	Start year for the Maestro (UK Domestic) card. Format: YYYY	Integer (4)
paySubscription RetrieveReply_card Type	Card type. For the possible values, see the description for **card_ cardType** in Table 21, page 105.	String (3)

Table 25   Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
Additional Reply Fields for Electronic Checks		
paySubscription RetrieveReply_check AccountNumber	Bank account number.	String with numbers only (17)
paySubscription RetrieveReply_check AccountType	Account type. Possible values: ■ C: Checking ■ S: Savings (U.S. dollars only) ■ X: Corporate checking (U.S. dollars only)	String (1)
paySubscription RetrieveReply_check AuthenticateID	Identification number returned when an Authenticate request is processed and returned in subsequent monetary transactions.	Numeric (32)
paySubscription RetrieveReply_check BankTransitNumber	Bank routing number.	String with numbers only (9)
paySubscription RetrieveReply_ checkSecCode	Code that specifies the authorization method for the transaction. Possible values: ■ CCD: Corporate cash disbursement—A charge or credit against a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. ■ PPD: Prearranged payment and deposit entry—A charge or credit against a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions and a written standing authorization is required for recurring transactions. ■ TEL: Telephone-initiated entry—A one-time charge against a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. There is no Recurring Billing option for TEL. ■ WEB: Internet-initiated entry—A charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet.	String (3)
paySubscription RetrieveReply_ companyName	Name of the customer's company.	String (40)

Table 25 Additional Reply Fields for the Retrieve Service for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_ companyTaxID	Company's tax identifier.	String with numbers only (9)
paySubscription RetrieveReply_ dateOfBirth	Date of birth of the customer. Format: YYYY-MM-DD or YYYYMMDD.	String (10)
paySubscription RetrieveReply_ driversLicenseNumber	Driver's license number of the customer.	String (30)
paySubscription RetrieveReply_ driversLicenseState	State or province where the customer's driver's license was issued.	String (2)
Additional Reply Fields for PINless Debits		
paySubscription RetrieveReply_card AccountNumber	Card account number.	String (20)
paySubscription RetrieveReply_card ExpirationMonth	Expiration month for the card. Format: MM	Integer (2)
paySubscription RetrieveReply_card ExpirationYear	Expiration year for the card. Format: YYYY	Integer (4)

Examples

Name-Value Pair Examples

Creating a Subscription

This example creates an installment subscription that uses a credit card for payment.

Example **Request: Creating an Installment Subscription**

```
paySubscriptionCreateService_run=true
merchantID=infodev
merchantReferenceCode=14344
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_cardType=001
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2014
subscription_title=Installment Subscription Test
subscription_paymentMethod=credit card
recurringSubscriptionInfo_amount=11.00
recurringSubscriptionInfo_numberOfPayments=4
recurringSubscriptionInfo_automaticRenew=false
recurringSubscriptionInfo_frequency=weekly
recurringSubscriptionInfo_startDate=20100221
```

Example **Reply: Creating an Installment Subscription**

```
requestID=0622042292190167904150
requestToken=rWguaL5IMUwAwxAA4JUS1BIRk2Rk5IMUyCv
merchantReferenceCode=14344
decision=ACCEPT
reasonCode=100
paySubscriptionCreateReply_reasonCode=100
paySubscriptionCreateReply_subscriptionID=0622042292190167904150
```

Including a Setup Fee

To include a 19.95 setup fee when creating a subscription, include these fields in the request:

```
ccAuthService_run=true
ccCaptureService_run=true
item_0_unitPrice=19.95
```

The reply will include these additional reply fields:

```
ccAuthReply_reasonCode=100
ccCaptureReply_reasonCode=100
ccAuthReply_authorizationCode=123456
```

Updating a Subscription

> **Note**
> If you are modifying the credit card type or number, CyberSource recommends that you also send a manual preauthorization request. See "Preauthorizations," page 24.

Example **Request: Updating a Subscription**

```
paySubscriptionUpdateService_run=true
merchantID=infodev
merchantReferenceCode=14344
recurringSubscriptionInfo_subscriptionID=0622042292190167904150
recurringSubscriptionInfo_amount=15.00
recurringSubscriptionInfo_numberOfPaymentstoAdd=5
```

Example   Reply: Updating a Subscription

```
requestID=0622042292190167904150
requestToken=AA4JUrWguaLLQxMUGwxSWVdPS1BIRk5IMUwA2yCv
merchantReferenceCode=14344
decision=ACCEPT
reasonCode=100
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionID=0622042292190167904150
```

Updating an Individual Payment

Example   Request: Updating an Individual Payment

```
paySubscriptionEventUpdateService_run=true
merchantID=infodev
merchantReferenceCode=14344
recurringSubscriptionInfo_subscriptionID=0622042292190167904150
recurringSubscriptionInfo_event_number=7
recurringSubscriptionInfo_event_amount=32.84
paySubscriptionEventUpdateService_action=approve
recurringSubscriptionInfo_event_approvedBy=Susan Hardy
```

Example   Reply: Updating an Individual Payment

```
requestID=0622042292190167331987
requestToken=AA4JUrWguaLLQxMUGwxSWVdPS1BIRk5IMUwA2yCv
merchantReferenceCode=14344
decision=ACCEPT
reasonCode=100
paySubscriptionEventUpdateReply_reasonCode=100
paySubscriptionEventUpdateReply=100
```

XML Examples

Creating a Subscription

This example creates an installment subscription that uses a credit card for payment.

Example   Request: Creating an Installment Subscription

```xml
<?xml version="1.0" encoding="utf-8"?>
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <billTo>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <street1>1295 Charleston Road</street1>
    <city>Mountain View</city>
    <state>CA</state>
    <postalCode>94043</postalCode>
    <country>US</country>
    <email>john.doe@example.com</email>
  </billTo>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <card>
    <accountNumber>4111111111111111</accountNumber>
    <expirationMonth>12</expirationMonth>
    <expirationYear>2012</expirationYear>
    <cardType>001</cardType>
  <subscription>
    <title>Installment Subscription Test</title>
    <paymentMethod>credit card</paymentMethod>
  </subscription>
  <recurringSubscriptionInfo>
    <amount>11.00</amount>
    <numberOfPayments>4</numberOfPayments>
    <automaticRenew>false</automaticRenew>
    <frequency>weekly</frequency>
    <startDate>20100221</startDate>
  </recurringSubscriptionInfo>
  <paySubscriptionCreateService run="true"/>
</requestMessage>
```

Example   Reply: Creating an Installment Subscription

```xml
<?xml version="1.0" encoding="utf-8"?>
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.52">
  <c:merchantReferenceCode>14344</c:merchantReferenceCode>
  <c:requestID>0622042292190167904150</c:requestID>
  <c:requestToken>rWguaL5IMUwAwxAA4JUS1BIRk2Rk5IMUyCv</c:requestToken>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paySubscriptionCreateReply>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0622042292190167904150</c:subscriptionID>
  </c:paySubscriptionCreateReply>
</c:replyMessage>
```

Including a Setup Fee

To include a 19.95 setup fee when creating a subscription, add these elements to the `<requestMessage>` element:

```xml
<ccAuthService run="true"/>
<ccCaptureService run="true"/>
<item id="0">
  <unitPrice>19.95</unitPrice>
</item>
```

The reply will include these additional elements in the `<replyMessage>` element:

```xml
<c:ccAuthReply>
  <reasonCode>100</reasonCode>
  <authorizationCode>123456</authorizationCode>
</c:ccAuthReply>
<c:ccCaptureReply>
  <reasonCode>100</reasonCode>
</c:ccCaptureReply>
```

Updating a Subscription

| **Note** | If you are modifying the credit card type and number, CyberSource recommends that you also send a manual preauthorization request. See "Preauthorizations," page 24. |

Example   Request: Updating a Subscription

```
<?xml version="1.0" encoding="utf-8"?>
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <recurringSubscriptionInfo>
    <subscriptionID>0622042292190167904150</subscriptionID>
    <amount>15.00</amount>
    <numberOfPaymentsToAdd>5</numberOfPaymentsToAdd>
  </recurringSubscriptionInfo>
  <paySubscriptionUpdateService run="true"/>
</requestMessage>
```

Example   Reply: Updating a Subscription

```
<?xml version="1.0" encoding="utf-8"?>
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.52">
  <c:merchantReferenceCode>14344</c:merchantReferenceCode>
  <c:requestID>0622042292190167904150</c:requestID>
  <c:requestToken>AA4JUrWguaLLQxMUGwxSWVdPS1BIRk5IMUwA2yCv</c:requestToken>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paySubscriptionUpdateReply>
    <c:reasonCode>100</c:reasonCode>
    <c:subscriptionID>0622042292190167904150</c:subscriptionID>
  </c:paySubscriptionUpdateReply>
</c:replyMessage>
```

Updating an Individual Payment

Example   Request: Updating an Individual Payment

```xml
<?xml version="1.0" encoding="utf-8"?>
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <recurringSubscriptionInfo>
    <subscriptionID>0622042292190167904150</subscriptionID>
      <event>
        <amount>32.84</amount>
        <approvedBy>Susan Hardy</approvedBy>
        <number>7</number>
      </event>
  </recurringSubscriptionInfo>
  <paySubscriptionEventUpdateService run="true">
    <action>approve</action>
  </paySubscriptionEventUpdateService>
</requestMessage>
```

Example   Reply: Updating an Individual Payment

```xml
<?xml version="1.0" encoding="utf-8"?>
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.52">
  <c:merchantReferenceCode>14344</c:merchantReferenceCode>
  <c:requestID>0622042292190167331987</c:requestID>
  <c:requestToken>kL34fkLOJOQ498xoiYcyyVr1wpbWEL2RKMYv</c:requestToken>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:paySubscriptionEventUpdateReply>
    <c:reasonCode>100</c:reasonCode>
  </c:paySubscriptionEventUpdateReply>
</c:replyMessage>
```

Reason Codes for the Simple Order API

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

![Important]

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]

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 26   Reason Codes for the Simple Order API

Reason Code	Description
100	Successful transaction.
101	The request is missing one or more required fields.
	Possible action: See the reply fields **missingField_0...N** for which fields are missing. Resend the request with the complete information.
102	One or more fields in the request contains invalid data.
	Possible action: See the reply fields **invalidField_0...N** for which fields are invalid. Resend the request with the correct information.
110	Only a partial amount was approved.
	Possible action: See "Preauthorizations," page 24.

Table 26   Reason Codes for the Simple Order API (Continued)

Reason Code	Description
150	Error: General system failure.
	See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
151	Error: The request was received but there was a server timeout. This error does not include timeouts between the client and the server.
	Possible action: 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.
152	Error: The request was received, but a service did not finish running in time.
	Possible action: 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.
	Possible action: Call your processor to possibly receive a verbal authorization. For contact phone numbers, refer to your merchant bank information.
202	Expired card.
	Possible action: Request a different card or other form of payment.
203	General decline of the card. No other information provided by the issuing bank.
	Possible action: Request a different card or other form of payment.
204	Insufficient funds in the account.
	Possible action: Request a different card or other form of payment.
205	Stolen or lost card.
	Possible action: Refer the transaction to your customer support center for manual review.
207	Issuing bank unavailable.
	Possible action: Wait a few minutes and resend the request.
208	Inactive card or card not authorized for card-not-present transactions.
	Possible action: Request a different card or other form of payment.
209	American Express Card Identification Digits (CIDs) did not match.
	Possible action: Request a different card or other form of payment.

Table 26   Reason Codes for the Simple Order API (Continued)

Reason Code	Description
210	The card has reached the credit limit.
	Possible action: Request a different card or other form of payment.
211	Invalid card verification number.
	Possible action: 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.
	Possible action: Request a different form of payment.
221	The customer matched an entry on the processor's negative file.
	Possible action: Review the order and contact the payment processor.
222	The customer's bank account is frozen.
	Possible action: 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.
	Possible action: You can capture the authorization, but consider reviewing the order for the possibility of fraud.
231	Invalid account number.
	Possible action: Request a different card or other form of payment.
232	The card type is not accepted by the payment processor.
	Possible action: Contact your merchant bank to confirm that your account is set up to receive the card in question.
233	General decline by the processor.
	Possible action: Request a different card or other form of payment.
234	There is a problem with your CyberSource merchant configuration.
	Possible action: Do not resend the request. Contact Customer Support to correct the configuration problem.
236	Processor failure.
	Possible action: Wait a few minutes and resend the request.
240	The card type sent is invalid or does not correlate with the card number.
	Possible action: Confirm that the card type correlates with the card number specified in the request, then resend the request.
250	Error: The request was received, but there was a timeout at the payment processor.
	Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status at the Business Center.

AVS Codes

The following table describes the types of AVS codes that CyberSource returns and Table 27 describes the individual AVS codes. For information about AVS fraud checks, see "Working with Fraud Checks," page 28.

Table 27   Types of AVS Codes

Type of Codes	Codes	Description
Codes for American Express Cards	F, H, J, K, L, O, Q, T, V	For American Express cards only. For American Express cards, you can receive Visa and CyberSource AVS codes in addition to the American Express AVS codes.
International Visa Codes	B, C, D, G, I, M, P	The international and domestic alphabetic AVS codes are the Visa standard AVS codes. CyberSource maps the standard AVS return codes for other types of credit cards, including American Express cards, to the Visa standard AVS codes. For international cards, you can receive domestic AVS codes in addition to the international AVS codes.
Domestic Visa Codes	A, E, N, R, S, U, W, X, Y, Z	
CyberSource Codes	1, 2, 3, 4	The numeric AVS codes are created by CyberSource and are not standard Visa codes. These AVS codes can be returned for any card type.

Table 28   AVS Codes

Code	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. Returned only for non U.S.-issued Visa cards.
C	No match: Street address and postal code do not match. Returned only for non U.S.-issued Visa cards.
D & M	Match: Street address and postal code match. Returned only for non U.S.-issued Visa cards.
E	Invalid: AVS data is invalid or AVS is not allowed for this card type.

Table 28   AVS Codes (Continued)

Code	Description
F	Partial match: Card member's name does not match, but billing postal code matches. Returned only for the American Express card type.
G	Not supported: Non-U.S. issuing bank does not support AVS.
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. Returned only for non U.S.-issued Visa cards.
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 signed up 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	See the entry for D & M.
N	No match: One of the following: 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. Returned only for non U.S.-issued Visa cards.
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 enrolled to use AAV+ with the American Express Phoenix processor.
R	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: 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.
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.

Table 28   AVS Codes (Continued)

Code	Description
1	Not supported: AVS is not supported for this processor or card type.
2	Invalid: 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

The following table describes the CVN codes. For information about CVN fraud checks, see "Working with Fraud Checks," page 28.

Table 29   CVN Codes

Code	Description
D	The transaction was determined to be suspicious by the issuing bank.
I	The CVN failed the processor's data validation check.
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.

Index

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

V

viewing profiles
    in the Business Center **35**