

Payment Tokenization

Using the Simple Order API

September 2013



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Recent Revisions to This Document

Release	Changes
September 2013	<ul style="list-style-type: none"> Updated the “Converting a Transaction into a Customer Profile”. See page 18.
May 2013	<ul style="list-style-type: none"> Added the card_cardType field to the examples. See "Examples," page 102. Removed the “Prerequisites” section. Added the “About this Guide” section. See page 7.
February 2013	<ul style="list-style-type: none"> Updated the “Prerequisites” section. Updated the "Flagging Payments for Visa Bill Payment Program" section. See page 28. Updated the recurringSubscriptionInfo_billPayment API request field. See Table 21, page 87.
June 2012	<ul style="list-style-type: none"> Updated the Business Center menu for Payment Tokenization. Updated the Preauthorization section. See "Automatic Preauthorization," page 22.
January 2012	<ul style="list-style-type: none"> Added the following API reply fields—See Additional Reply Fields for Electronic Checks, Table 25, page 95: <ul style="list-style-type: none"> paySubscriptionRetrieveReply_checkAuthenticateID paySubscriptionRetrieveReply_checkSecCode

About This Guide

Audience

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

Purpose

This guide describes tasks that you must complete in order to create, update, retrieve, and delete customer profiles.

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.



Warning

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

Related Documentation

- [*Account Updater User Guide*](#)—describes how to automatically incorporate changes made to a customer's payment card data.
- [*Business Center Overview*](#)—describes the features and options available within the Business Center.
- [*Credit Card Services Using the Simple Order API*](#)—describes how to integrate credit card processing in to your order management system.
- [*Electronic Check Services Using the Simple Order API*](#)—describes how to integrate eCheck processing in to your order management system. [*Hosted Order Page User 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 in to your order management system.
- [*Reporting User Guide*](#)—describes how to view and configure Business Center reports.
- [*Silent Order POST User Guide*](#)—describes how to create and integrate seamlessly with Silent Order POST.
- [*Secure Acceptance Web/Mobile Configuration Guide*](#)—describes how to create and integrate seamlessly with Secure Acceptance Web/Mobile.
- [*Secure Acceptance Silent Order POST Development Guide*](#)—describes how to create and integrate seamlessly with Secure Acceptance Silent Order POST.
- [Simple Order API client download page.](#)
- [Simple Order API and SOAP Toolkit API Testing Information page.](#)
- [Offline Transaction File Submission Implementation Guide.](#)

Introduction

Payment Tokenization

Payment Tokenization replaces sensitive credit card information with a unique identifier that cannot be reversed engineered. CyberSource securely stores all the card information, replacing it with a subscription ID, which you store on your server. No sensitive card information is stored on your servers, by reducing your PCI DSS obligations.

The subscription ID retains the last four digits of the primary account number (PAN) in order to accurately match the subscription to the card owner. The remaining numbers are generated using proprietary tokenization algorithms.

If you store credit card data, the PAN data 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. All payment information stored with CyberSource is automatically updated by participating banks, thereby reducing payment failures.



Important

Contact CyberSource Customer Support to activate your merchant account for using Payment Tokenization services.

Customer Profile

A customer profile contains information about a customer that you store in the CyberSource database for future billing. A customer profile includes:

- The customer's name
- The customer's required contact information, such as billing address
- The customer's optional contact information, such as 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 customer profile, such as a merchant reference number, a customer ID, a title for the customer profile, or comments
- Optional storage fields in which you can store any type of data

An on-demand customer profile lets you store sensitive information. At any time you can send a request to bill the customer for an amount you specify. CyberSource retrieves the necessary customer profile information and uses it to process the payment.

Subscription ID

Use the subscription ID when you perform any tasks involving the customer profile. By default, the subscription ID is non-format-preserving 22-digits. The setting for the size of the subscription ID is applied to your account so it affects all customer profiles that you create.

You can update the 22-digit subscription ID to a 16-digit subscription ID. There are two 16-digit subscription IDs available, both passing Luhn MOD 10 checks, and one containing the last four digits of the customer's primary account number (PAN). When you update from a 22-digit subscription ID to a 16-digit subscription ID, the status of the old customer profile becomes *superseded*.



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

If you have an old system that stores 16 digit, mod-10-checked account numbers that conform to ISO payment cards, two 16 digit subscription IDs are available that provide upward compatibility between your system and CyberSource Payment Tokenization services:

- Non-format-preserving subscription ID—16 digits with leading digits of 99. If your business rules prohibit 99 in the leading digits, you must modify your system to accept the 16 digit subscription ID with 99 as the leading digits. The last digit, which is the Luhn check digit, passes Luhn mod-10 checks.
- Format-preserving subscription ID—16 digits that pass Luhn mod-10 checks and display the last 4 digits of the primary account number (PAN).



Update your subscription ID storage systems with the 16-digit subscription ID; all transactions are declined if you are using a customer profile with a status of *superseded*.

When you create a customer profile, store the 22 digit or 16 digit subscription ID that you receive in the reply message. To access customer profile information, include the 22 digit or 16 digit subscription ID when you request other services. CyberSource uses the subscription ID to look up the account number and process the request.

Payment Methods

Credit Cards



Note

Payment Tokenization 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 21](#).

The following processors support credit card customer profiles:

- AIBMS
- American Express Brighton
- American Express Phoenix
- Asia-Mideast Processing
- Barclays
- CCS (CAFIS)
- Chase Paymentech Solutions
- Citibank—Contact your CyberSource sales representative for information about the Citibank platforms
- FDC Compass
- FDC Nashville Global
- FDMS Nashville
- FDMS South
- 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 customer profile with an offline credit card, but without an online authorization, you cannot determine whether the credit card number is valid before the customer profile is created. For more information about online and offline credit cards, refer to the following documents:

- [Global Payment Service Developer Guide](#)
- [Credit Card Services Using the Simple Order API](#)

- GPN

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

Electronic Checks

Electronic check customer profiles are supported for the following processors:

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

Before you can create an electronic check customer profile, you must obtain your customer's consent. See ["Authorization for Electronic Checks," page 20](#).

PINless Debits

The following processor supports PINless debit customer profiles:

- 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 you can create 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 20](#).

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.
- 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 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 Data Storage," page 28](#) to understand the data storage fields.

Creating a Customer Profile

A customer profile enables you to store sensitive customer information, but does not support recurring or installment payments. The customer profile supports only on-demand payments. At any time, you can send a request to bill a customer for an amount you specify, and CyberSource uses the subscription ID of the customer profile to retrieve the customer profile information to process the transaction.

Creating a Customer Profile

When you create a customer profile, you must provide the following information:

- Customer's payment information.



Note

The term *payment information* refers to the customer's billing information 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, expiration date, and routing number).

- Your own reference number or order number, for cross-referencing the customer profile in your system.
- Optional information of any type that is encrypted before being stored in the CyberSource database.

This section describes how to create a customer profile with new customer information. The rest of this chapter describes optional features that you can use when creating a customer profile.



Note

If you charge a setup fee when creating a customer 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 profile 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 21](#).

When you create a subscription or customer profile for electronic checks or PINless debits, you must obtain an explicit consent from the customer. See ["Obtaining and Displaying Customer Consent,"](#) page 20.

To create a customer profile:

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**—Set this field to **on-demand**. This is a required field.
- **item_0_unitPrice** or **purchaseTotals_grandTotalAmount**—Required only if you are charging a setup fee or performing a manual authorization.
- **subscription_paymentMethod**—Required for all payment methods except credit cards because credit card is the default payment method.

Depending on the payment method, additional fields may be required. See

Table 1 Additional Required Fields for Specific Payment Methods

Payment Method	Additional Required Fields
Credit cards	<ul style="list-style-type: none"> ■ card_cardType ■ card_accountNumber ■ card_expirationMonth ■ card_expirationYear ■ ignoreCardExpiration—Required only when you create a profile using a card with an expired date. ■ paySubscriptionCreateService_disableAutoAuth—Required when you include the ignoreCardExpiration field. ■ paySubscriptionCreateService_paymentRequestID—Required only when you convert an existing credit card authorization in to a customer profile. ■ orderRequestToken or paySubscriptionCreateService_paymentRequestToken—Required only when you convert an existing credit card authorization in to a customer profile. <p>The additional required fields are described in Table 21, page 87.</p>
Electronic checks	<ul style="list-style-type: none"> ■ 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 Table 22, page 91 for details. ■ check_accountNumber ■ check_accountType ■ check_bankTransitNumber ■ check_secCode ■ check_checkNumber ■ check_bankTransitNumber <p>The additional required fields are described in Table 22, page 91.</p>
PINless debits	<p>card_accountNumber</p> <p>The additional required fields are described in Table 23, page 93.</p>

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

Payment Method	Additional Required Fields
All methods	<ul style="list-style-type: none"> ■ merchantSecureData_field1 ■ merchantSecureData_field2 ■ merchantSecureData_field3 ■ merchantSecureData_field4 <p>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 53.</p>

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 as described in ["Charging a Setup Fee," page 26](#) or perform a preauthorization as described in ["Preauthorizations," page 21](#). Check with your merchant account provider to verify that you will be charged a fee for the preauthorization.
- *For electronic checks*—Charge a setup fee as described in ["Charging a Setup Fee," page 26](#) or perform a preauthorization as described in ["Preauthorizations," page 21](#).
- *For PINless debits*—You must validate the card before you create the customer profile. Request the PINless debit validate service. For more information, see the [PINless Debit Card Services Implementation Guide](#). You also have the option of charging a setup fee as described in ["Charging a Setup Fee," page 26](#).

Converting a Transaction to a Customer Profile

You can convert an existing transaction in to a customer profile. The types of transactions that can be converted to a customer profile are different for each connection method. You cannot override any of the information that is stored with the transaction. If you need to change the transaction information for the customer profile, update the profile after you create it. See ["Updating a Customer Profile," page 32](#).



Note

Transaction information resides in the CyberSource database for 60 days after the transaction takes place.



Note

Even if your CyberSource account is configured to use automatic preauthorizations, CyberSource does not perform a preauthorization when you convert an existing transaction in to a customer profile or a different kind of customer profile.

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 ["API Fields," page 80](#) 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 Profile

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

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

To change the payment method of a customer profile:

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

Step 2 Include the following fields in the request:

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



Important

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.

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 as described in ["Charging a Setup Fee," page 26](#) or perform a preauthorization as described in ["Preauthorizations," page 21](#). Check with your merchant account provider to see if you will be charged a fee for the preauthorization.
- *For electronic checks*—Charge a setup fee as described in ["Charging a Setup Fee," page 26](#) or perform a preauthorization as described in ["Preauthorizations," page 21](#).

- *For PINless debits*—You must validate the card before you create the customer profile. Request the PINless debit validate service, this is described in the [PINless Debit Card Services Implementation Guide](#). You also have the option of charging a setup fee as described in "Charging a Setup Fee," page 26.
-

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 duration 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 displayed on your web site, or read to the customer over the phone, accepted by the customer before you create a customer profile for PINless debits. 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 account number to be debited.
- Clearly indicate that the authorization is for a one-time purchase.
- Include instructions for revoking the authorization.

Types of Authorizations

Partial Authorizations

When the balance on a debit card or prepaid card is lower than the requested authorization amount, the issuing bank can approve a partial amount. When this happens, 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 are creating a profile with a setup fee or with an on-demand payment.

Preauthorizations



Note

PINless debits cannot be preauthorized. Instead, you must validate the card before you create the customer profile:

- If you are using the Business Center, click the **Validate** button in the Payment Information section on the **New Profile** page.
- If you are 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 customer profile by using existing transaction information, your customer's account information has already been validated. See ["Creating a Customer Profile," page 14](#).



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 21](#).

Charging a setup fee validates your customer's account information. See ["Charging a Setup Fee," page 26](#). If you do not charge a setup fee when you create a customer profile, you can arrange for CyberSource to validate the customer's account information before you create the customer profile. CyberSource validates a customer's account by requesting a preauthorization. If the preauthorization fails, the customer profile cannot be created. Check with your merchant account provider to see if you will be charged a fee for preauthorization.

If you configure your customer's account for automatic preauthorizations, CyberSource will automatically run several fraud checks during a preauthorization depending on the payment method for the new customer profile. See ["Supported Processors for Credit Cards," page 24](#).

Automatic Preauthorization

You must configure your account for this feature as described in ["Automatic Preauthorization Reversal," page 23](#). After your account has been configured, you can:

- Automatically preauthorize a credit card account when creating a customer profile that uses new credit card information.
- Automatically preauthorize a bank account when creating a customer profile that uses new electronic check information.

You cannot automatically preauthorize an account when converting an existing transaction to a customer profile.

CyberSource does not charge you for automatically preauthorized transactions.



Automatic authorizations cannot include partial authorizations for prepaid cards and debit cards. For more information about partial authorizations, see ["Types of Authorizations," page 21](#).



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

Manual Preauthorization

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 if you charged more than \$0 for the preauthorization, CyberSource recommends that you subsequently request a full authorization reversal.

For information about the `paySubscriptionCreateService` service, see ["Creating a Customer Profile," page 14](#). For information about the `ccAuthService` service, see ["Credit Card Services Using 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 Profile," page 15](#). For information about the ecDebitService service, see the [Electronic Check Services Using 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 automatically reverse preauthorizations. CyberSource does not charge you for reversing automatic preauthorizations. If customer profile creation fails for any reason, or if the preauthorization amount is \$0, CyberSource does not reverse the automatic preauthorization.

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

- 1 Credit card authorization service for the preauthorization.
- 2 Subscription creation service—only if the authorization was successful.
- 3 Full authorization reversal service—only if the authorization was successful and the preauthorization amount was not \$0.



Note

With any credit card processor, you can manually reverse a preauthorization.

Configuring Your Account for Automatic Preauthorizations

The steps for configuring your account for automatic preauthorizations depend on the CyberSource connection method you use. First, you must enable automatic preauthorizations for all connection methods. Then if you want to, disable it for all customer profiles you create.

To enable an automatic preauthorization:

- Step 1** Log in to the Business Center:
- Live transactions: <https://ebc.cybersource.com>
 - Test transactions: <https://ebctest.cybersource.com>
- Step 2** In the left navigation panel, choose **Payment Tokenization > Settings**.
- Step 3** In the **Profile Processing Options** section, check the **Perform an automatic preauthorization before creating profile** check box.
- Step 4** Click **Submit Changes**.
-

Any new customer profile you create with any of the connection methods will use automatic preauthorizations. If your processor supports full authorization reversal, contact Customer Support to enable automatic preauthorization reversals for your account.

To disable automatic preauthorizations when you create a customer profile with the Simple Order API, include the **paySubscriptionCreateService_disableAutoAuth** field in the **paySubscriptionCreateService** service request. See "[Creating a Customer Profile](#)," page 14.

Supported Processors for Credit Cards

All processors supporting profile-based credit card payments also support automatic and manual preauthorizations. These processors are listed in "[Credit Cards](#)," page 11.

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

- Chase Paymentech Solutions
- FDC Nashville Global
- FDMS South
- GPN
- Little
- 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 amount 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 profile that uses the account.

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

Working with Fraud Checks



For PINless debits, fraud checks and preauthorizations are not supported. Instead, you must validate the card before you create the customer profile. See ["Obtaining and Displaying Customer Consent," page 20](#).

If you are 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 will automatically run several fraud checks during a preauthorization depending on the payment method for the new customer profile:

- AVS—Credit cards only
- CVN—Credit cards only
- Decision Manager—Credit cards and electronic checks



For information about preauthorizations, see ["Preauthorizations," page 21](#).

Charging a Setup Fee



Note

You cannot charge a setup fee when using preauthorizations. See ["Preauthorizations," page 21](#).



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 profile is not be created. Therefore, CyberSource recommends that you do not enable partial authorizations for setup fees. For more information about partial authorizations, see ["Preauthorizations," page 21](#).

The amount that you specify as the setup fee is immediately charged to the customer.

Setup Fees and New Account Information



Note

You can choose to select 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 profile with a setup fee and Decision Manager places the setup fee request in your review queue, the customer profile is not 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.

When you create a customer profile with existing transaction information, the Simple Order API supports setup fees for customer profiles:

Credit cards—Include the **paySubscriptionCreateService** service, the **ccAuthService** service, and the **ccCaptureService** service in the same request. Use either the **item_0_unitPrice** field or the **purchaseTotals_grandTotalAmount** field to specify the setup fee.

For information about the **paySubscriptionCreateService** service, see ["Creating a Customer Profile," page 14](#). For information about the **ccAuthService** service and the **ccCaptureService** service, see the [Credit Card Services Using the Simple Order API](#).

Electronic checks—Include the **paySubscriptionCreateService** service and the **ecDebitService** in the same request. Use either the **item_0_unitPrice** field or the **purchaseTotals_grandTotalAmount** field to specify the setup fee.

For information about the **paySubscriptionCreateService** service, see ["Creating a Customer Profile," page 14](#). For information about the **ecDebitService** service, see the [Electronic Check Services Using the Simple Order API](#).

Setup Fees and Existing Account Information

When you create a customer profile with existing transaction information, the Simple Order API supports setup fees for subscriptions or customer profiles for credit cards but not for other payment methods.

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

For information about **paySubscriptionCreateService**, see ["Creating a Customer Profile," page 14](#). For information about **ccAuthService** and **ccCaptureService**, see the [Credit Card Services Using the Simple Order API](#).



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



If you try to create a credit card subscription or customer profile with a setup fee and Decision Manager places the setup fee request in your review queue, the subscription or customer profile is not 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 subscription or 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 customer profile in the Business Center or with a CyberSource API. Thereafter, all scheduled or on-demand payments and credits associated with the customer profile are flagged as part of the Visa Bill Payment program.

When creating a customer profile, set the **recurringSubscriptionInfo_billPayment** field to **true** in the request to create the customer profile. 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 Data Storage

There are two kinds of data storage fields that you can include in a customer profile. You can include any type 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 customer profile for the sole purpose of storing data, use the “other” payment method. See ["Other \(Data Storage\)," page 13](#).



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

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

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

Working with a Customer Profile

Obtaining Information

Searching For and Viewing a Customer Profile

You can use the Business Center to search for a customer profile. In the left navigation pane, choose **Payment Tokenization > Search**. The **Profile Search** page opens.

Profile Search

When searching for profiles, you can narrow your search to active, on hold, or canceled profiles, 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.

Search Results

The **Profile Search Results** page provides all the basic information about each customer profile that is found. You can export these results as XML or as CSV, which can then be imported in to a spreadsheet. Instructions are available in the online help.

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

**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 **Profile 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 Profile," page 31](#).

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

Retrieving a Customer Profile



The **paySubscriptionRetrieveService** service retrieves information about a customer profile. See ["Additional Reply Fields for the Retrieve Service," page 95](#) for descriptions of the information that this service retrieves.

You can also use the Business Center to retrieve information about a customer profile. See ["Searching For and Viewing a Customer Profile," page 30](#).

To retrieve customer profile information:

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

Step 2 Include the following fields in the request:

- **paySubscriptionRetrieveService_run**
 - **merchantID**
 - **merchantReferenceCode**
 - **recurringSubscriptionInfo_subscriptionID**
 - Additional fields are optional. Optional and required fields are described in [Appendix A, "API Fields," on page 80](#).
-

Updating a Customer Profile

Using the Business Center, you can update individual profiles or groups of customer profiles. Using the CyberSource API, you can update only individual customer profiles.



Important

You cannot create and update a customer profile in the same request. If you create a customer profile and need to update it, wait a few minutes after creating it before submitting your update request. If you request the update too soon, you receive an error. Only profiles with a status of *current* can be updated.

You can change most of the information in a customer profile with the exception of:

- Merchant reference number
- Subscription ID



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, when 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 **Profile Details** page. The superseded customer profile can not be modified, deleted, or cancelled. You can retrieve details of a customer profile and view any payment events. All payments or credits requested are applied to the new customer profile. Update your subscription ID storage systems with the new subscription ID. Otherwise, all transactions if using a customer profile with a status of *superseded* are declined.

To update the customer profile information:

Step 1 Set the `paySubscriptionUpdateService` 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. Optional and required fields are described in [Appendix A, "API Fields," on page 80](#).
-

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 you receive a new subscription ID. This new subscription ID is created only when the last four digits of the new card number differ from the last four digits of the old card number.



Important

Update your subscription ID storage systems with the new subscription ID, otherwise all transactions are declined if using a customer profile with a status of *superseded*.

When the new subscription ID is created for a profile, the status of the previous subscription ID changes to *superseded*. You can view the status of a subscription ID in the **Profile Search Results** page in the Business Center. Both the old subscription ID and the new subscription ID are displayed in the **Profile Details** page.

When you request the **paySubscriptionUpdateService** service (see [page 32](#)), set the relevant account number field:

- Credit card accounts and PINless debit accounts—Update the **card_accountNumber** field.
- Electronic check accounts—Update the **check_accountNumber** field.

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

- Credit card account or electronic check account—Manually preauthorize the account as described in "[Manual Preauthorization](#)," [page 22](#).
- PINless debit account—Request the PINless debit validate service, which is described in the [PINless Debit Card Services Implementation Guide](#).

When you use the Simple Order API to change the account number for a customer profile, validate the new account information by manually preauthorizing the account. See "[Manual Preauthorization](#)," [page 22](#).

Requesting an On-Demand Payment or Credit

**Important**

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

**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 21](#).

The on-demand transactions that you can request are:

- *For credit cards*—authorization, sale, credit
- *For electronic checks*—debit, credit
- *For PINless debits*—debit

You can use a PINless debit customer profile to request a credit card transaction. See ["Changing the Payment Method of a Customer Profile," page 19](#).

To request an on-demand transaction:

Step 1 Request the relevant service or services.

Step 2 Include the following fields in the request:

- **merchantID**
- **merchantReferenceCode**
- **purchaseTotals_currency**
- **item_0_unitPrice** or **purchaseTotals_grandTotalAmount**

**Note**

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 Overview](#). 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 you use 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 21.

Using a PINless Debit Customer Profile for a One-Time Credit Card Transaction

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 customer profile to perform a credit card transaction. 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 profile does not include this information, you must provide it in the authorization request.

Working with Account Updater

CyberSource Account Updater is integrated with the Payment Tokenization functionality so that your customer profiles can be kept up-to-date with the latest credit card data changes. These changes can include a new expiration date, a new credit card number, or a brand 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 and 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 will submit 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 profiles with updated credit card data.
- Updates your customer profiles once per month.
- Requests updates only for customer profiles that are in the *active* or *on-hold* state. Updates for customer profiles in the *completed* or *cancelled* state are not requested.

If you prefer to have your customer profiles 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 profiles 3 to 5 days before your billing cycle begins. You can choose any calendar day, 1 through to 28.

Checking the Status of Your Updates

Use the Business Center to check 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

View Options

Results per page

Sort order

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

Within 24 to 48 hours of your scheduled customer profile update, an Account Updater Profile Update Report is 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 in to the Business Center.
 - Step 2** In the left navigation area, choose **Reports > Report Search**.
The **Report Search** window is displayed.
 - Step 3** Choose **All** from the **Report** drop-down list and **Daily** in the **Frequency** drop-down list.
 - Step 4** Choose the day that your reports were processed.
 - Step 5** Click **Submit**.
The report is listed in the **Downloadable Reports** table.
 - Step 6** Click the **Download** link next to your report.
Depending on your browser settings, the report 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 more 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:

[https:// ebc.cybersource.com/ebc/DownloadReports](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
<code><server_name></code>	Name of the server from which to download the report. Possible values: <ul style="list-style-type: none"> ■ <code>ebctest.cybersource.com/ebctest</code>: Test server ■ <code>ebc.cybersource.com/ebc</code>: Production server ■ <code>downloadreportstest.cybersource.com</code>: Test reports server ■ <code>downloadreports.cybersource.com</code>: Production reports server
<code>YYYY</code>	Four-digit year
<code>MM</code>	Two-digit month
<code>DD</code>	Two-digit day
<code><merchant_id></code>	Your CyberSource merchant ID
<code><report_name></code>	Name of the report to download. Possible value: <code>merchantID.batchID.au.response.ss</code>
<code><report_format></code>	Report format. Possible value: <code>csv</code>

Records in the Account Updater Profile Update Report

Table 2 Header Records

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: <code>cybs.au.response.ss</code>	30
3	Merchant ID	CyberSource Merchant ID. Format: Alphanumeric	30
4	Batch ID	Unique identifier for the batch, generated by CyberSource. Format: Numeric	30

Table 3 Detail Records

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 profile. CyberSource returned this value when the profile was created. Format: Numeric	16 or 22
4	New Card Number	New card number with 8 digits masked. Format: Alphanumeric If no new card number is available, this field is populated with the current card number.	19
5	Response Code	Return code for the record. * Customer profiles with a response code of ACL are 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

* See the "Record Level Response Codes" and "Record Level Reason Codes" sections in the [Account Updater User Guide](#).

Table 3 Detail Records (Continued)

Order	Field Name	Description	Maximum Size
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 profile. This supersedes the previous subscription ID. CyberSource returned this value when the profile was updated. Format: Numeric	16

* See the “Record Level Response Codes” and “Record Level Reason Codes” sections in the [Account Updater User Guide](#).

Table 4 Footer Records

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](#).

Profile Sharing

When you create a customer profile, your CyberSource merchant ID is associated with that profile. Profile sharing lets you share customer profiles among a group of CyberSource merchant IDs. To set up profile sharing, call Customer Support.

With profile sharing:

- You can access customer profiles that were created with other CyberSource merchant IDs. You can:
 - Obtain information about a customer profile that was created with a CyberSource merchant ID for which sharing is enabled.
 - Update a customer profile that was created with a CyberSource merchant ID for which sharing is enabled.
 - Perform a on-demand transaction for a customer profile that was created with a CyberSource merchant ID for which sharing is enabled.
- People using other CyberSource merchant IDs can access customer profiles that you created.

You cannot:

- Create a customer profile with a CyberSource merchant ID other than your own.
- Create a customer profile by converting an existing transaction that was processed with a CyberSource merchant ID other than your own.
- Delete a customer profile that has a CyberSource merchant ID other than your own.
- See the history in the Business Center for customer profiles 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 customer profiles with CyberSource merchant IDs other than your own.

Retrieving Customer Profile Information

With profile sharing, you can retrieve customer profile information that was created with a CyberSource merchant ID for which sharing is enabled. In your request, include your CyberSource merchant ID and the subscription ID of the customer profile. If you request the retrieve service for a customer profile that was not created with a CyberSource merchant ID for which sharing is enabled, CyberSource returns the ESYSTEM reply flag for the SCMP API or reason code 150 for the Simple Order API. See ["Retrieving a Customer Profile," page 31](#).

Updating a Customer Profile

With profile sharing, you can update any customer profile that was created with a CyberSource merchant ID for which sharing is enabled. For general information, see ["Updating a Customer Profile," page 32](#).



Important

If your account is configured to use a 16 digit format-preserving subscription ID, and you update the card account number with a new card account number, you receive a new subscription ID. This new subscription ID is created when 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. See ["Creating a Customer Profile," page 14](#).

The status of the previous subscription ID changes to *superseded*. Both the superseded subscription ID and the new subscription ID are displayed in the **Profile Details** page. The superseded customer profile cannot be modified, deleted, or cancelled. You can retrieve details of a the customer profile and view any payment events. All payments or credits requested are applied to the new customer profile.

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

In your request, use your own CyberSource merchant ID and use the subscription ID of customer profile that you want to update. If you request the **paySubscriptionUpdateService** service (see [page 32](#)) for a customer profile that was 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

With profile sharing, you can request an on-demand payment or credit for any customer profile that was created with a CyberSource merchant ID for which sharing is enabled. For general information, see ["Requesting an On-Demand Payment or Credit," page 34](#). Before using the Business Center to request an on-demand payment or credit, you must first search for the customer profile. The **Profile Search** page includes a drop-down list that lets you choose whether to search only for customer profiles that you created or for all customer profiles that were created with CyberSource merchant IDs for which sharing is enabled.



Important

You can not process an independent payment or credit using a customer profile that has a status of *superseded*. The superseded customer profile cannot be modified, deleted, or cancelled. You can retrieve details of a superseded customer profile and view any payment events. All payments or credits requested are applied to the new customer profile.

In your request, include your own CyberSource merchant ID and the subscription ID of the 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 was not created with a CyberSource merchant ID for which sharing is enabled, CyberSource will return reason code 150.

Deleting a Customer Profile



Deleting a customer profile is permanent. Only profiles with a status of *current* can be deleted. When a profile is deleted, any profiles it superseded are also deleted.

To delete a customer profile:

Step 1 Request the **paySubscriptionDeleteService** service.

Step 2 Include the following fields in the request:

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

Required fields are described in [Appendix A, "API Fields,"](#) on page 80.

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.

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 profiles in the test version of the Business Center:

<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 profiles that use small amounts, such as 1.50. Search for and view your live customer profiles in the production version of the Business Center:

<https://ebc.cybersource.com>.

**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 profiles.

Subscription Detail Report

The Subscription Detail Report provides detailed information about on-demand customer profile transactions. It also includes information about your on-demand 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 the [Reporting Developer Guide](#).



Important

This chapter also details elements and attributes relating to Recurring Billing. See [Recurring Billing Using the Business Center](#).

XML Report Format

Some 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
<code><Sample></code>	Parent of the subsequent elements.
<code>Attribute=CDATA</code>	Name of the attribute followed by the XML data format for the attribute.
<code>(Element)</code>	Required element. Must appear only once.
<code>ChoiceOne ChoiceTwo</code>	Either element <code>ChoiceOne</code> or <code>ChoiceTwo</code> but not both.
<code>(ComplexElement)</code>	Element with one or more children.
<code>(RequiredRecurringElement)+</code>	Required element. Can appear one or more times.
<code>(OptionalElement)?</code>	Optional element. Can appear once or be omitted.
<code>(OptionalRecurringElement)*</code>	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	<p><i>YYYY-MM-DD</i>, where:</p> <ul style="list-style-type: none"> ■ <i>YYYY</i> is the four-digit year ■ <i>MM</i> is the two-digit month ■ <i>DD</i> is the two-digit day <p>The dashes are included in a Date value.</p>
Date Time	<p><i>YYYY-MM-DDTHH:MM:SS [+ -] HH:MM</i>, where:</p> <ul style="list-style-type: none"> ■ <i>YYYY</i> is the four-digit year. ■ <i>MM</i> is the two-digit month. ■ <i>DD</i> is the two-digit day. ■ <i>THH:MM:SS</i> is the time, with <i>HH</i> representing hours, <i>MM</i> representing minutes, and <i>SS</i> representing seconds. ■ <i>[+ -] HH:MM</i> is the time zone's offset from Greenwich Mean Time (GMT), with <i>HH</i> representing hours and <i>MM</i> 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. <p>Example 2010-02-28T16:31:18-07:00 represents February 28, 2010 at 4:31:18 PM PDT.</p>
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 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 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 <SubscriptionPayments>

Attribute Name	Field Description	Data Type & Length
payment_request_id	Identifier for the transaction request.	String (26)
subscription_id	Identifier for the customer profile.	String (26)
transaction_date	Date on which the transaction took place.	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: <ul style="list-style-type: none"> ■ 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 street address.	String (60)
<bill_address2>	Second line of the billing street 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 defined this value when you created the customer profile.	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>	Street address to which the product is shipped.	String (60)
<ship_to_address2>	Secondary street address line to which the product is shipped.	String (60)
<ship_to_city>	City to which the product is shipped.	String (60)

Table 10 Elements of <ShipTo> (Continued)

Element Name	Field Description	Data Type & Length
<ship_to_state>	State or province to which the product is shipped.	String (2)
<ship_to_zip>	Postal code to which the product is shipped	String (10)
<ship_to_country>	Country to which the product is shipped.	String (2)
<ship_to_company_name>	Company to which the product is 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 Credit 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 how many 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 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 Credit Card Services Using the Simple Order API	String (6)

Table 13 Elements of <PaymentData> (Continued)

Element Name	Field Description	Data Type & Length
<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)
<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>0</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>111111111</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>	<p>Four fields that merchants can use to store information.</p> <p>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.</p> <p>Note If you are creating a customer profile based on an authorization, the merchant-defined data fields do not get transferred to the new customer profile.</p>	String (255)
<merchant_defined_data2>		
<merchant_defined_data3>		
<merchant_defined_data4>		

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 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)

Table 15 Elements of <SubscriptionDetails> (Continued)

Element Name	Field Description	Data Type & Length
<subscription_type>	Type of subscription or customer profile. Possible values: <ul style="list-style-type: none"> ■ on-demand ■ recurring 	String (20)
<subscription_title>	Name or title of the customer profile.	String (60)
<last_subscription_status>	Status of the subscription or customer profile on the previous day.	String (20)
<subscription_status>	Current status of the customer profile. Possible values: <ul style="list-style-type: none"> ■ hold ■ retry ■ cancelled ■ current ■ superseded 	String (20)
<subscription_payment_method>	Method of payment associated with the 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)
<comments>	Optional comments that you can make about the subscription or customer profile.	String (255)

Table 15 Elements of <SubscriptionDetails> (Continued)

Element Name	Field Description	Data Type & Length
<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)
<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>0.0000000000000000</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="11111111111111111111"
      transaction_date="2010-02-11T18:43:28+09:00"
      merchant_ref_number="111111111111"
      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>
    </SubscriptionPayment>
  </SubscriptionPayments>
  <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>
</Report>
```

```

<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>0</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>111111111</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 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	<p><i>YYYY-MM-DD</i>, where:</p> <ul style="list-style-type: none"> ■ <i>YYYY</i> is the four-digit year ■ <i>MM</i> is the two-digit month ■ <i>DD</i> is the two-digit day <p>The dashes are included in a Date value.</p>

Table 16 Report Data Types (Continued)

Data Type	Description
Date Time	<p><i>YYYY-MM-DDTHH:MM:SS</i> [+ -] <i>HH:MM</i>, where:</p> <ul style="list-style-type: none"> ■ <i>YYYY</i> is the four-digit year. ■ <i>MM</i> is the two-digit month. ■ <i>DD</i> is the two-digit day. <p><i>THH:MM:SS</i> is the time, with <i>HH</i> representing hours, <i>MM</i> representing minutes, and <i>SS</i> representing seconds.</p> <p>[+ -] <i>HH:MM</i> is the time zone's offset from Greenwich Mean Time (GMT), with <i>HH</i> representing hours and <i>MM</i> 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.</p> <p>Example 2010-02-28T16:31:18-07:00 represents February 28, 2010 at 4:31:18 PM PDT.</p>
Numeric	String containing numbers.

CSV Report Fields

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	report_name	Name of the report. Possible value: Subscription Detail Report	Alphanumeric (100)
2	version_number	Version number of the report.	Numeric (10)
3	date_range	Dates included in the report in the format <i>YYYY-MM-DD to YYYY-MM-DD</i> . 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_
rmmsg,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,01,201
0,01,07,,1111,,200,0,JS1111,O,N,00,,,,,Afvvj5r9uxlPGppxMFE2FNaWtdbSB04e
4rJkbTolKnjU04mAAA1w43,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 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: <ul style="list-style-type: none"> ■ 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: <ul style="list-style-type: none"> ■ hold ■ retry ■ cancelled ■ current ■ superseded 	String (20)
15	subscription_payment_method	Method of payment associated with the subscription or customer profile.	String (20)

Table 18 Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
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: <ul style="list-style-type: none"> ■ 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: <ul style="list-style-type: none"> ■ <code>true</code>: Payments must be approved before processing. ■ <code>false</code>: 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: <ul style="list-style-type: none"> ■ <code>true</code>: Subscription schedule is renewed automatically. ■ <code>false</code>: Subscription schedule will not be 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)

Table 18 Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
39	bill_country	Country of the customer.	String (2)
40	ship_to_address1	Street address to which the product is shipped.	String (60)
41	ship_to_address2	Secondary street address line to which the product is shipped.	String (60)
42	ship_to_city	City to which the product is shipped.	String (60)
43	ship_to_state	State or province to which the product is shipped.	String (2)
44	ship_to_company_name	Company to which the product is shipped.	String (60)
45	ship_to_country	Country to which the product is shipped.	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 to which the product will be shipped.	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. For credit card details, see .	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)

Table 18 Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
60	ecp_account_type	Account type. Possible values: <ul style="list-style-type: none"> ■ C: Checking ■ S: Savings (USD only) ■ X: Corporate Checking (USD only) 	String (1)
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. For details on forced captures, see .	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)

Table 18 Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
74	e_commerce_indicator	Type of transaction. Possible values: <ul style="list-style-type: none"> ■ internet (default) ■ moto ■ retail 	String (13)
75	transaction_ref_number	Identifier for the transaction.	String (64)
76-79	merchant_defined_data1 merchant_defined_data2 merchant_defined_data3 merchant_defined_data4	<p>Four fields that merchants can use to store information.</p> <p>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.</p> <p>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.</p>	String (255)

Table 18 Fields in the Transaction Record (Continued)

Position	Field Name	Field Description	Data Type & Length
80-83	merchant_secure_data1	Storage fields for any type of data.	String (100)
	merchant_secure_data2		
	merchant_secure_data3		
	merchant_secure_data4		

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,,,,,

API Fields

**Important**

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

Data Type Definitions

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, such as @ and #.

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 shipping address. Use the two-character ISO country codes .	Create (R) ProfileUpdate (O)	String (2)
billTo_customerID	Your identifier for the customer. When a customer profile is being created, the maximum length for this field is 30. 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 creating a customer profile, the requirements depend on the payment method: <ul style="list-style-type: none"> ■ Credit cards—Optional. ■ Electronic checks—Required. ■ 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 code .	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)
comments	Optional comments for the customer profile. Note Do not use this field to store sensitive customer information.	Create (O) ProfileUpdate (O)	String (255)

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
decisionManager_enabled	<p>Indicates whether to use Decision Manager for a customer profile.</p> <p>Use this field only if you are using Decision Manager and are configured to use automatic preauthorizations as described in "Preauthorizations," page 21. Also see "Supported Processors for Credit Cards," page 24.</p> <p>By default, Decision Manager will be used on the preauthorization that occurs before the customer profile is created. You can use this field to turn off Decision Manager for the preauthorization for this specific customer profile. Possible values:</p> <ul style="list-style-type: none"> ■ false: Do not use Decision Manager for this customer profile. ■ true (default): Use Decision Manager for this customer profile. <p>For more information about Decision Manager, see the Decision Manager Developer Guide.</p>	Create (O)	String (5)
ignoreCardExpiration	<p>Indicates whether to ignore a card expiration date when creating a subscription.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ false: Do not ignore the card expiration date. ■ true: Ignore the card expiration date. <p>Note If set to true, the paySubscriptionCreateService_disableAutoAuth field must also be set to true.</p>	Create (O)	String (5)
item_0_unitPrice	<p>Use this field or the purchaseTotals_grandTotalAmount field to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Charging a Setup Fee," page 26 and "Preauthorizations," page 21.</p>	Create (See description) ProfileUpdate (O)	String (15)

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
merchantDefinedData_field1	<p>Four fields that you can use to store information. These values are displayed on the Subscription Transaction Details page on the Business Center. To understand the different kinds of data storage fields see "Optional Data Storage," page 28.</p> <p>Warning Merchant-defined data fields are not intended to and MUST NOT be used to capture personally identifying information. Accordingly, merchants are prohibited from capturing, obtaining, and/or transmitting any personally identifying information in or via the merchant-defined data fields. Personally identifying information includes, but is not limited to, card number, bank account number, social security number, driver's license number, state-issued identification number, passport number, and card verification numbers (CVV, CVC2, CVV2, CID, CVN). In the event CyberSource discovers that a merchant is capturing and/or transmitting personally identifying information via the merchant-defined data fields, whether or not intentionally, CyberSource WILL immediately suspend the merchant's account, which will result in a rejection of any and all transaction requests submitted by the merchant after the point of suspension.</p> <p>Note If you are creating a customer profile based on an existing transaction, the merchant-defined data fields do not get transferred to the new customer profile.</p>	Create (O)	String (255)
merchantDefinedData_field2		ProfileUpdate (O)	
merchantDefinedData_field3			
merchantDefinedData_field4			
merchantID	Your CyberSource merchant ID.	Required for all services	String (30)
merchantReferenceCode	Merchant-generated order reference or tracking number.	Required for all services	String (50)

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	Storage fields for any type of data. The only validation performed on these fields is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Data Storage," page 28.	Create (O) ProfileUpdate (O)	String (100)
merchantSecureData_field2			
merchantSecureData_field3			
merchantSecureData_field4	Storage field for any type of data. The only validation performed on this field is a size check. The data is encrypted before it is stored in the database. To understand the different kinds of data storage fields see "Optional Data Storage," page 28. Note The maximum number of characters allowed is 183 or less.	Create (O) ProfileUpdate (O)	String (2K)
paySubscriptionCreateService_disableAutoAuth	Indicates whether to turn off the preauthorization check when creating this customer profile, as described in "Optional Data Storage," page 28. Use this field if your CyberSource account is configured for automatic preauthorizations but for this specific customer profile you want to override that setting. Possible values: <ul style="list-style-type: none"> ■ false: No, go ahead and perform the preauthorization for this customer profile. ■ true: Yes, turn off the preauthorization check for this customer profile. 	Create (O)	String (5)
paySubscriptionCreateService_run	Indicates whether to include paySubscriptionCreateService in your request. Possible values: <ul style="list-style-type: none"> ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Creating a Customer Profile," page 14.	Create (R)	String (5)
paySubscriptionDeleteService_run	Indicates whether to include paySubscriptionDeleteService in your request. Possible values: <ul style="list-style-type: none"> ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Deleting a Customer Profile," page 44.	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
paySubscriptionRetrieveService_run	Indicates whether to include the paySubscriptionRetrieveService service in your request. Possible values: <ul style="list-style-type: none"> ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Retrieving a Customer Profile," page 31 .	Retrieve (R)	String (5)
paySubscriptionUpdateService_run	Indicates whether to include paySubscriptionUpdateService in your request. Possible values: <ul style="list-style-type: none"> ■ true: Include the service in your request. ■ false (default): Do not include the service in your request. See "Updating a Customer Profile," page 32 .	ProfileUpdate (R)	String (5)
purchaseTotals_currency	Currency used by the customer.	Create (R) ProfileUpdate (O)	String (5)
purchaseTotals_grandTotalAmount	Use this field or item_0_unitPrice to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Optional Data Storage," page 28 and "Preauthorizations," page 21 .	Create (See description) ProfileUpdate (O)	String (15)
recurringSubscriptionInfo_amount	Amount of the customer profile payments. This value can be 0.	Create (O) ProfileUpdate (O)	String (15)
recurringSubscriptionInfo_frequency	Frequency of payments for the customer profile. Possible value: <ul style="list-style-type: none"> ■ on-demand: No payment schedule 	Create (R)	String (20)
recurringSubscriptionInfo_subscriptionID	Value that identifies the customer profile for which the service is being requested. This value was sent to you when the customer profile was created.	ProfileUpdate (R) Retrieve (R)	String (26)
shipTo_city	City of the shipping address.	Create (O) ProfileUpdate (O)	String (50)
shipTo_company	Name of the company 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)

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_lastName	Last name of the person receiving the product.	Create (O) ProfileUpdate (O)	String (60)
shipTo_postalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits] [dash] [4 digits] Example: 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha] [numeric] [alpha] [space] [numeric] [alpha] [numeric] Example: A1B 2C3</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	Create (O) ProfileUpdate (O)	String (10)
shipTo_state	State or province in the shipping address. Use the two-character ISO state and province code .	Create (O) ProfileUpdate (O)	String (2)
shipTo_street1	First line of the street address in the shipping address.	Create (O) ProfileUpdate (O)	String (60)
shipTo_street2	Second line of the street address in the shipping address.	Create (O) ProfileUpdate (O)	String (60)
subscription_paymentMethod	<p>Method of payment. See "Payment Methods," page 11. Possible values:</p> <ul style="list-style-type: none"> ■ credit card (default when creating a customer profile) ■ check ■ other ■ pinless debit 	Create (See description) ProfileUpdate (O)	String (20)
subscription_title	Name or title for the customer profile.	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_declineAVSFlags	<p>List of AVS codes that cause the customer profile creation request to be declined for AVS reasons. Use a space to separate the codes in the list. Use this field only if you are using automatic preauthorization. See "Preauthorizations," page 21 and Appendix D, "AVS Codes," on page 110.</p> <p>Important You must include the value <code>N</code> in the list if you want to receive declines for the AVS code <code>N</code>.</p>	Create (O)	String (255)
businessRules_ignoreAVSResult	<p>Indicates whether CyberSource should ignore the results of the AVS check and create the customer profile even if the credit card does not pass the AVS check. Use this field only if you are using automatic preauthorization.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ <code>true</code>: Ignore the results of the AVS check and create the customer profile. ■ <code>false</code> (default): If the AVS check fails, do not create the customer profile. <p>When this value is <code>true</code>, the list in the businessRules_declineAVSFlags field is ignored.</p>	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	<p>Type of card to authorize. For more information about which cards can be handled by each processor, see Credit Card Services Using the Simple Order API. Possible values:</p> <ul style="list-style-type: none"> ■ 001: Visa ■ 002: MasterCard, Eurocard—European regional brand of MasterCard ■ 003: American Express ■ 004: Discover ■ 005: Diners Club ■ 006: Carte Blanche ■ 007: JCB ■ 014: EnRoute ■ 021: JAL ■ 024: Maestro (UK Domestic) ■ 031: Delta—Use this value only for Global Collect. For other processors, use 001 for all Visa card types. ■ 033: Visa Electron ■ 034: Dankort ■ 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. 	<p>Create (R)</p> <p>ProfileUpdate (O)</p>	String (3)
card_cvIndicator	<p>Indicates whether a card verification number was included in the request. Possible values:</p> <ul style="list-style-type: none"> ■ 0 (default): CVN service not requested. This default is used if you do not include card_cvNumber in the request. ■ 1 (default): CVN service requested and supported. This default is used if you include card_cvNumber in the request. ■ 2: CVN on credit card is illegible. ■ 9: CVN was not imprinted on credit card. 	Create (O)	String with numbers only (1)

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_cvNumber	Card verification number. Include this field only if you are using automatic preauthorization and want to run the CVN check. See "Preauthorizations," page 21 and "Supported Processors for Credit Cards," page 24 . Do not include this field if you are creating a 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 the number of times a Maestro (UK Domestic) card has been issued to the account holder. The card might or might not have an issue number; the field is required if the card has an issue number. The number can consist of one or two digits, and the first digit might be a zero. Include exactly what is printed on the card—a value of 2 is different than a value of 02. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card.	Create (See description) 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 to 12.	Create (See description) ProfileUpdate (O)	Integer (2)
card_startYear	Year of the start of the Maestro (UK Domestic) card validity period. The card might or might not have a start date printed on it; the field is required if the card has a start date. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: YYYY	Create (See description) ProfileUpdate (O)	Integer (4)

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
orderRequestToken	<p>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.</p> <p>You must include this field or the paySubscriptionCreateService_paymentRequestToken field when you convert an existing authorization to a customer profile.</p>	Create (See description)	String (256)
paySubscriptionCreateService_paymentRequestID	<p>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.</p> <p>This field is required when you convert an existing authorization to a customer profile.</p>	Create (O)	String (26)
paySubscriptionCreateService_paymentRequestToken	<p>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 a maximum of 256 characters.</p> <p>You must include this field or the orderRequestToken field when converting an existing authorization to a customer profile.</p>	Create (See description)	String (256)
recurringSubscriptionInfo_billPayment	<p>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 28. This value is case sensitive. Possible values:</p> <ul style="list-style-type: none"> ■ 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) 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_driversLicenseNumber	Customer's driver's license number.	Create (O) ⁽¹⁾ ProfileUpdate (O)	String (30)
billTo_driversLicenseState	State or province in which the customer's driver's license was issued. Use the two-character ISO state and province code .	Create (O) ⁽¹⁾ ProfileUpdate (O)	String (2)
check_accountNumber	Checking account number.	Create (R) ProfileUpdate (O)	String with numbers only (17)
check_accountType	Checking account type. Possible values: <ul style="list-style-type: none"> ■ C: Checking ■ S: Savings (USD only) ■ X: Corporate checking (USD only) 	Create (R) ProfileUpdate (O)	String (1)
check_bankTransitNumber	Bank routing number. This value is also known as the <i>transit number</i> .	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**

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	<p>Code that specifies the authorization method for the transaction. Possible values:</p> <ul style="list-style-type: none"> ■ CCD: Corporate cash disbursement—charge or credit to a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. ■ PPD: Prearranged payment and deposit entry—charge or credit to a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions, and a written standing authorization is required for recurring transactions. ■ TEL: Telephone-initiated entry—one-time charge to a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. There is no recurring billing option for TEL. ■ WEB: Internet-initiated entry—charge to a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. 	Create (R) 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**

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

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

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: <ul style="list-style-type: none"> ■ ACCEPT ■ ERROR ■ REJECT 	All services	String (6)
invalidField_0...N	Fields in the request that contained invalid values. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
merchantReference Code	Order reference or tracking number that you provided in the request.	All services	String (50)

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

Field Name	Description	Returned By	Data Type & Length
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. Do not use these fields to communicate with customers.	All services	String (100)
paySubscriptionCreateReply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 107.	Create	Integer (5)
paySubscriptionCreateReply_subscriptionID	Identifier for the customer profile.	Create	String (26)
paySubscriptionDeleteReply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 107.	Delete	Integer (5)
paySubscriptionDeleteReply_subscriptionID	Identifier for the customer profile.	Delete	String (26)
paySubscriptionRetrieveReply_ownerMerchantID	CyberSource merchant ID that was used to create the customer profile for which the service was requested. This field is returned only if you are using profile sharing and only if you requested this service for a customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See "Profile Sharing," page 42.	Retrieve	String (30)
paySubscriptionRetrieveReply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 107.	Retrieve	Integer (5)
paySubscriptionRetrieveReply_subscriptionID	Identifier for the customer profile.	Retrieve	String (16 or 22)
paySubscriptionRetrieveReply_subscriptionIDNew	Identifier for the customer profile. Note This 16-digit subscription ID supersedes the previous subscription ID for the same customer profile.	Retrieve	String (16)
paySubscriptionUpdateReply_ownerMerchantID	CyberSource merchant ID that was used to create the customer profile for which the service was requested. This field is returned only if you are using profile sharing and only if you requested this service for a customer profile that was created with a CyberSource merchant ID for which sharing is enabled. See "Profile Sharing," page 42.	ProfileUpdate	String (30)
paySubscriptionUpdateReply_reasonCode	Numeric value corresponding to the result of the service request. See Appendix C, "Reason Codes for the Simple Order API," on page 107.	ProfileUpdate	Integer (5)

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

Field Name	Description	Returned By	Data Type & Length
paySubscriptionUpdateReply_subscriptionID	Identifier for the customer profile.	ProfileUpdate	String (16 or 22)
paySubscriptionUpdateReply_subscriptionIDNew	Identifier for the customer profile. Note This 16-digit subscription ID supersedes the previous subscription ID for the same customer profile.	Retrieve	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 107.	All services	Integer (5)
requestID	Identifier for the request.	All services	String (26)
requestToken	Request token data created by CyberSource for each reply. You must 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		
paySubscriptionRetrieveReply_approvalRequired	This field is not meaningful for customer profiles.	String (5)
paySubscriptionRetrieveReply_automaticRenew	This field is not meaningful for customer profiles.	String (5)
paySubscriptionRetrieveReply_city	City of the customer's address.	String (50)
paySubscriptionRetrieveReply_comments	Comments that you included for the customer profile.	String (255)
paySubscriptionRetrieveReply_country	Country code for the billing address. Use the two-character ISO codes .	String (2)

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

Field Name	Description	Data Type & Length
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)
paySubscription RetrieveReply_endDate	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 customer profile. Possible value: <ul style="list-style-type: none"> ■ on-demand: No payment schedule 	String (20)
paySubscription RetrieveReply_last Name	Customer's last name.	String (60)
paySubscription RetrieveReply_merchantDefinedData Field1	Four fields for storing information. To understand the kinds of data storage fields see "Optional Data Storage," page 28.	String (64)
paySubscription RetrieveReply_merchantDefinedData Field2		
paySubscription RetrieveReply_merchantDefinedData Field3		
paySubscription RetrieveReply_merchantDefinedData Field4		
paySubscription RetrieveReply_merchantReference Code	Merchant-generated order reference or tracking number.	String (50)

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

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_ merchantSecureData Field1	Data that was encrypted. CyberSource decrypts the data before returning it. To understand the different kinds of data storage fields see "Optional Data Storage," page 28 .	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 Data Storage," page 28 .	String (2K)
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 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)
paySubscription RetrieveReply_shipTo Country	Country code for the shipping address. Use the two-character ISO 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)

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

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_shipTo PostalCode	Postal code in the shipping address.	String (10)
paySubscription RetrieveReply_shipTo State	State or province of shipping address. Use the two-character ISO state and province codes.	String (2)
paySubscription RetrieveReply_shipTo Street1	First line of the shipping address.	String (60)
paySubscription RetrieveReply_shipTo Street2	Second line of the shipping address.	String (60)
paySubscription RetrieveReply_start Date	This field is not meaningful for customer profiles.	String (8)
paySubscription RetrieveReply_state	State or province of billing address. Use the two-character ISO state and province codes.	String (2)
paySubscription RetrieveReply_status	Status of the customer profile. Possible values: <ul style="list-style-type: none"> ■ Cancelled: The customer profile has been cancelled. ■ Current: The customer profile is active. ■ Superseded: The subscription ID for the customer profile has been superseded with a new subscription ID. 	String (9)
paySubscription RetrieveReply_street1	First line of billing address.	String (60)
paySubscription RetrieveReply_street2	Second line of billing address.	String (60)
paySubscription RetrieveReply_title	Name or title for the customer profile.	String (60)
paySubscription RetrieveReply_total Payments	This field is not meaningful for customer profiles.	Integer (3)
Additional Reply Fields for Credit Cards		
paySubscription RetrieveReply_bill Payment	Indicates whether the payments for this customer profile are for the Visa Bill Payment program. Possible values: <ul style="list-style-type: none"> ■ N (default): Not a Visa Bill Payment. ■ Y: Visa Bill Payment. See "Setup Fees and Existing Account Information," page 27 .	String (1)
paySubscription RetrieveReply_card AccountNumber	Card account number.	String (20)

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

Field Name	Description	Data Type & Length
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 87 .	String (3)
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: <ul style="list-style-type: none"> ■ C: Checking ■ S: Savings (USD only) ■ X: Corporate checking (USD 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_check checkAuthenticateID	Identification number returned when an Authenticate request is processed and returned in subsequent monetary transactions.	Numeric (32)

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

Field Name	Description	Data Type & Length
paySubscription RetrieveReply_ checkSecCode	Code that specifies the authorization method for the transaction. Possible values: <ul style="list-style-type: none"> ■ CCD: Corporate cash disbursement—A charge or credit against a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. ■ PPD: Prearranged payment and deposit entry—A charge or credit against a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions and a written standing authorization is required for recurring transactions. ■ TEL: Telephone-initiated entry—A one-time charge against a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. There is no recurring billing option for TEL. ■ WEB: Internet-initiated entry—A charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. 	String (3)
paySubscription RetrieveReply_ companyName	Name of the customer's company.	String (40)
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 in which the customer's driver's license was issued.	String (2)

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 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 Customer Profile

Example Creating a Customer Profile Request

```
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
billTo_phoneNumber=650-965-6000
purchaseTotals_currency=USD
card_cardType=001
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2014
subscription_title=On-Demand Profile Test
subscription_paymentMethod=credit card
recurringSubscriptionInfo_frequency=on-demand
```

Example Creating a Customer Profile Reply

```
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 customer profile, include these fields in the create profile 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 Customer Profile



Note

If you are modifying the credit card type or number, CyberSource recommends that you also send a manual preauthorization request. See ["Preauthorizations," page 21](#).

Example Updating a Customer Profile Request

```
paySubscriptionUpdateService_run=true
merchantID=infodev
merchantReferenceCode=14344
recurringSubscriptionInfo_subscriptionID=0622042292190167904150
billTo_phoneNumber=555-555-1212
```

Example Updating a Customer Profile Reply

```
requestID=0622042292190167904150
requestToken=AA4JUWguaLLQxMUGwxSWVdPS1BIRk5IMUwA2yCv
merchantReferenceCode=14344
decision=ACCEPT
reasonCode=100
paySubscriptionUpdateReply_reasonCode=100
paySubscriptionUpdateReply_subscriptionID=0622042292190167904150
```

XML Examples

Creating a Customer Profile

This example creates an on-demand profile that uses a credit card for payment.

Example Creating a Customer Profile Request

```
<?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>
    <phoneNumber>650-965-6000</phoneNumber>
  </billTo>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <card>
    <accountNumber>4111111111111111</accountNumber>
    <expirationMonth>12</expirationMonth>
    <expirationYear>2012</expirationYear>
  <subscription>
    <title>On-Demand Profile Test</title>
    <paymentMethod>credit card</paymentMethod>
  </subscription>
  <recurringSubscriptionInfo>
    <frequency>on-demand</frequency>
  </recurringSubscriptionInfo>
  <paySubscriptionCreateService run="true"/>
</requestMessage>
```

Example Creating a Customer Profile Reply

```
<?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 customer profile, add these elements to the `<requestMessage>` element:

```
<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:

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

Updating a Customer Profile



Note

If you are modifying the credit card type and number, CyberSource recommends that you also send a manual preauthorization request. See ["Preauthorizations," page 21](#).

Example Updating a Customer Profile Request

```
<?xml version="1.0" encoding="utf-8"?>
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>14344</merchantReferenceCode>
  <billTo>
    <phoneNumber>555-555-1212</phoneNumber>
  </billTo>
  <recurringSubscriptionInfo>
    <subscriptionID>0622042292190167904150</subscriptionID>
  </recurringSubscriptionInfo>
  <paySubscriptionUpdateService run="true"/>
</requestMessage>
```

Example Updating a Customer Profile Reply

```
<?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>
```

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](#).

**Important**

Because CyberSource can add reply fields and reason codes at any time, you must:

- Parse the reply data according to the names of the fields instead of their order in the reply. For more information on parsing reply fields, see the documentation for your client.
- Program your error handler to use the **decision** field to determine the result if it receives a reason code that it does not recognize.

**Note**

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

Table 26 Reason Codes for the Simple Order API

Reason Code	Description
100	Successful transaction.
101	Missing required fields. Possible action: See the reply fields missingField_0...N for which fields are missing. Resend the request with the complete information.
102	Invalid data. Possible action: See the reply fields invalidField_0...N for which fields are invalid. Resend the request with the correct information.
110	Partial amount approved. Possible action: See " Preauthorizations ," page 21.

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

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

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

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

AVS Codes

The following table describes the types of AVS codes that CyberSource returns and [Table 28](#) describes the individual AVS codes. For information about AVS fraud checks, see ["Supported Processors for Credit Cards," page 24](#).

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 registered 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 ["Supported Processors for Credit Cards," page 24](#).

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.

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