

CyberSource Payment Tokenization

Using the SCMP API

October 2018



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Recent Revisions to This Document

Release	Changes
October 2018	Added information about merchant-initiated transactions. See " Merchant-Initiated Transactions ," page 42.
June 2018	<p>Changed the name of <i>Carte Bleu</i> to <i>Cartes Bancaires</i>.</p> <p>All processors that support relaxed requirements: moved the relaxed requirements information to a web page: Relaxed Requirements for Address Data and Expiration Date page</p> <p>Title: changed processor name to <i>Worldpay VAP</i>.</p> <p>Added support for Credit Mutuel-CIC. See "Supported Processors and Payment Methods," page 12.</p>
February 2018	FDC Nashville Global: added support for China UnionPay cards. See " Supported Processors and Payment Methods ," page 12.
April 2017	<p>Added the "Updating an eCheck Account Number" section. See "Updating an eCheck Account Number," page 35.</p> <p>Added the "Updating an eCheck Account Number" example. See "Updating an eCheck Account Number," page 81.</p>
December 2016	Added the merchant_descriptor_alternate field. See Table 4, "Request Fields," on page 44.
June 2016	<p>Added <i>OmniPay Direct</i> as a supported processor. See "Supported Processors and Payment Methods," page 12.</p> <p>Renamed <i>Global Collect</i> to <i>Ingenico ePayments</i>. See "Supported Processors and Payment Methods," page 12.</p>

About This Guide

Audience and Purpose

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

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

Conventions

Note, Important, and Warning Statements



Note

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



Important

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



Warning

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

Text and Command Conventions

Convention	Usage
bold	<ul style="list-style-type: none"> Field and service names in text; for example: Include the ics_pay_subscription_create field. Items that you are instructed to act upon; for example: Click Save.
<code>screen text</code>	Code examples and samples.

Related Documents

Refer to the Support Center for complete CyberSource technical documentation:

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

Table 1 Related Documents

Subject	Description
Account Updater	<i>Account Updater User Guide</i> (PDF HTML)—describes how to automatically incorporate changes made to a customer's payment card data.
Business Center	<i>Business Center Overview</i> (PDF HTML)—describes the features and options available within the Business Center.
Credit Card	<i>Credit Card Services Using the SCMP API</i> (PDF HTML)—describes how to integrate credit card processing into your order management system.
eCheck	<i>Electronic Check Services Using the SCMP API</i> (PDF HTML)—describes how to integrate eCheck processing into your order management system.
Offline Transaction Submission	<i>Offline Transaction File Submission Implementation Guide</i> (PDF HTML).
Payment Network Tokenization	<i>Payment Network Tokenization Using the SCMP API</i> (PDF HTML)—describes how to add payment network tokenization to an order management system that already uses CyberSource credit card services.
PINless Debit	<i>PINless Debit Card Services Using the SCMP API</i> (PDF HTML)—describes how to integrate PINless debit processing using the SCMP API into your order management system.
Recurring Billing	<i>Recurring Billing Using the SCMP API</i> (PDF HTML)—describes how to create customer subscriptions and process installment or recurring payments.
Reporting	<i>Classic Reporting Developer Guide</i> (PDF HTML)—describes how to view and configure Business Center reports.

Table 1 Related Documents (Continued)

Subject	Description
SCMP API	<ul style="list-style-type: none"> <li data-bbox="738 317 1412 411">■ <i>Getting Started with CyberSource Advanced for the SCMP API</i> (PDF HTML)—describes how to get started using the SCMP API. <li data-bbox="738 426 1412 457">■ SCMP API Documentation and Downloads page.
Secure Acceptance Silent Order POST	<i>Secure Acceptance Checkout API Integration Guide</i> (PDF HTML)—describes how to create a Secure Acceptance profile and integrate seamlessly with Secure Acceptance Silent Order POST.
Secure Acceptance Web Mobile	<i>Secure Acceptance Hosted Checkout Integration Guide</i> (PDF HTML)—describes how to create a Secure Acceptance profile and integrate seamlessly with Secure Acceptance Web/Mobile.

Customer Support

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

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

Introduction

Terminology

Payment Tokenization

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

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

**Important**

CyberSource payment tokenization and payment network tokenization are different features:

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

Payment Network Token

The payment network token is created by a token service provider and can be used throughout the financial network. The payment network token replaces the primary account number (PAN) that is stored in a customer profile. You can create a customer profile and include the payment network token (see "[Including the Payment Network Token](#)," page 26), update the payment network token details (see "[Replacing Card Information With a Payment Network Token](#)," page 31), and replace a payment network token with updated card details (see "[Replacing a Payment Network Token With Card Information](#)," page 34).

Profile ID



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

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

There are three types of profile IDs:

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

On-Demand Customer Profile



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

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

- Update customer profile information (see "[Updating a Customer Profile](#)," page 30).
- Change the payment method of a customer profile (see "[Changing the Payment Method of a Customer Profile](#)," page 36).
- Process an on-demand transaction using the customer profile details. You can process an authorization, credit, PINless debit validate, PINless debit, eCheck credit, and an eCheck debit (see "[Converting a Transaction to a Customer Profile](#)," page 38).
- Retrieve customer profile information (see "[Retrieving a Customer Profile](#)," page 39).
- Delete a customer profile (see "[Deleting a Customer Profile](#)," page 39).
- Share customer profiles (see "[Customer Profile Sharing](#)," page 41).

Secure Acceptance

Payment Token

If you are using Secure Acceptance to process transactions, the payment token is the customer profile ID (see ["Profile ID," page 11](#)). The payment token identifies the card and retrieves the associated billing, shipping, and card information. For Secure Acceptance documentation, see ["Related Documents," page 8](#).

Supported Processors and Payment Methods

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



Note

The *other* payment method enables you to store data securely in a customer profile. This payment method is useful if you do not intend to use the customer profile for payment transactions. You must use the CyberSource API services to submit a customer profile request with the *other* payment method. See ["Optional Data Storage," page 40](#).



Important

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

Table 2 Supported Processors and Payment Methods

Processor	Payment Method
AIBMS	Credit card.
American Express Brighton	Credit card. Important Only American Express card types are supported. Important Does not support automatic preauthorization reversals.
American Express Direct	Debit card and prepaid card—supports partial authorizations. Important Only American Express card types are supported.
Asia-Mideast Processing	Credit card.
Barclays	Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.
CCS (CAFIS)	Credit card.

Table 2 Supported Processors and Payment Methods (Continued)

Processor	Payment Method
Chase Paymentech Solutions	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, and Diners Club cards. ■ Electronic check. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
Citibank	Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.
Comercio Latino	Credit card—supports 1.00 preauthorizations using Visa, Mastercard, American Express, Discover, Diners Club, JCB, Hipercard, Aura, and Elo cards.
Credit Mutuel-CIC	Credit card—supports Visa and Mastercard.
CyberSource ACH Service	Electronic check.
CyberSource through VisaNet	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Credit card—supports 1.00 preauthorizations for American Express, Discover, Diners Club, and JCB card types. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Diners Club, JCB, and Discover cards.
FDC Compass	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, and Discover cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
FDC Nashville Global	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa, Mastercard, and China UnionPay cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic), and China UnionPay cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.

Table 2 Supported Processors and Payment Methods (Continued)

Processor	Payment Method
FDMS Nashville	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB (US Domestic) cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
FDMS South	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, and JCB (US Domestic) cards.
Ingenico ePayments	Credit card.
GPN	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB cards. ■ PINless debit. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
HSBC	<p>Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.</p> <p>Important Does not support automatic preauthorization reversals.</p>
LloydsTSB Cardnet	Credit card.
Moneris	Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.
Omnipay Direct	Credit card—supports 0.00 preauthorizations using Visa, Mastercard, Maestro (International), and Maestro (UK Domestic).
OmniPay-Ireland	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations using Visa and Mastercard cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
RBS WorldPay Atlanta	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards. ■ Electronic check.
Streamline	Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards.
TeleCheck	Electronic check—supports 1.00 preauthorizations.

Table 2 Supported Processors and Payment Methods (Continued)

Processor	Payment Method
TSYS Acquiring Solutions	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for Visa and Mastercard cards and 1.00 preauthorizations using American Express, Discover, Diners Club, and JCB cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB cards. ■ Visa Bill Payments—see "Visa Bill Payment Program," page 41.
Worldpay VAP Worldpay VAP was previously called <i>Little</i> .	<ul style="list-style-type: none"> ■ Credit card—supports 0.00 preauthorizations for American Express, Diners Club, Discover, JCB, Mastercard, and Visa cards. ■ Debit card and prepaid card—supports partial authorizations for Visa, Mastercard, American Express, Discover, Diners Club, and JCB cards.

Relaxed Requirements for Address Data and Expiration Date

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

Types of Authorizations

Table 3 Types of Authorizations

Authorization	Description
Automatic Preauthorization	<p>Automatically preauthorize a credit card when you create a customer profile, or automatically preauthorize a bank account when you create a customer profile with new eCheck information. See "Automatically Preauthorizing an Account," page 21.</p> <p>Depending on the payment method and if your account is configured for Decision Manager, CyberSource automatically runs several fraud checks during a preauthorization: AVS and CVN checks for cards, and Decision Manager for cards and eChecks.</p> <p>Note Partial authorizations for prepaid cards and debit cards cannot be performed for automatic preauthorizations.</p> <p>Important Contact your merchant account provider to determine whether you will be charged a fee for a preauthorization.</p>
Manual Preauthorization	<p>Manually preauthorize a customer's account for a nominal or zero amount when you create a customer profile. This feature is available only with the CyberSource API. See "Manually Preauthorizing a Customer Profile," page 22.</p> <p>Contact your merchant account provider to determine whether you will be charged a fee for a preauthorization.</p>
Automatic Preauthorization Reversal	<p>If your processor supports full authorization reversal, you can contact CyberSource Customer Support to automatically reverse preauthorizations when you create a customer profile. CyberSource does not charge you for reversing automatic preauthorizations. If you cannot create a customer profile for any reason, or if the preauthorization amount is 0.00, CyberSource does not reverse the automatic preauthorization.</p> <p>Important TSYS Acquiring Solutions, American Express Brighton, and HSBC do not support automatic preauthorization reversals.</p>
Partial Authorization	<p>When the balance on a debit card or prepaid card is lower than the requested authorization amount, the issuing bank can approve a partial amount.</p>

Authorization Consents

Authorization for Electronic Checks

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

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

Authorization for PINless Debits

You must have a consent statement displayed on your web site or read to the customer over the phone and 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.

Reporting

Subscription Detail Report

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

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

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

Transaction Endpoints



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

For live transactions, send requests to the production server:

<http://ics2a.ic3.com>

For test transactions, send requests to the test server:

<http://ics2testa.ic3.com>

When you use the test server, the payment method you are testing determines whether you use test card numbers (see "[Test Card Numbers](#)," page 19) or test account numbers. Search for and view your test subscriptions in the test version of the Business Center:

<https://ebctest.cybersource.com>

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

<https://ebc.cybersource.com>

Test Card Numbers

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

Credit Card Type	Test Account Number
Visa	4111111111111111
Mastercard	5555555555554444
American Express	378282246310005
Discover	6011111111111117
JCB	3566111111111113
Diners Club	38000000000006
Maestro International (16 digits)	600034000009859
Maestro Domestic (16 digits)	675918000005546

Requesting Payment Tokenization Services



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

Validating a Customer Profile



PINless debits cannot be preauthorized. You must validate the card before you create the customer profile. See "[PINless Debit Validation](#)," page 23.

Three validation methods are available to you to validate a card or eCheck customer profile before you create it: charging a setup fee, automatically preauthorizing an account, or manually preauthorizing an account.

Charging a Setup Fee

This fee can be charged only for card and eCheck payments. It is a one-time optional fee that you can charge only when you are creating a customer profile. Include the setup fee in the **grand_total_amount** field. See "[Credit Card with a Setup Fee](#)," page 25.



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

Automatically Preauthorizing an Account

Only card payments and eCheck payments can be preauthorized, and CyberSource does not charge you for this feature. Before the customer profile is created, CyberSource authorizes a small amount against the payment method entered for the customer profile. Each payment processor supports different preauthorization amounts, see "[Payment Tokenization](#)," page 10.

If your account is configured for automatic preauthorizations, CyberSource automatically runs several fraud checks during a preauthorization depending on the payment method for the new customer profile:

- AVS checks—credit card only
- CVN checks—credit card only
- Decision Manager—credit card and electronic checks

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

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

To enable automatic preauthorizations using the Business Center:

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

To disable automatic preauthorizations:

- Step 1** Request the `ics_pay_subscription_create` service. See ["Creating an On-Demand Customer Profile," page 24.](#)
- Step 2** In the `ics_pay_subscription_create` request, set the `recurring_disable_auto_auth` field to `Y`.
-

Manually Preauthorizing a Customer Profile

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



Important

If your processor supports full authorization reversals, and if you charged more than 0.00 for the preauthorization, CyberSource recommends that you subsequently request a full authorization reversal. See ["Supported Processors and Payment Methods," page 12.](#)

To manually preauthorize a card customer profile:

- Step 1** Request the `ics_pay_subscription_create` service. See ["Credit Card without a Setup Fee," page 24.](#)
- Step 2** Include the following fields:
- `grand_total_amount`—set to 0.00 or a small amount.
 - `ics_applications`—set to `ics_auth`.
-



Note

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

- `auth_first_recurring_payment=Y`
- `customer_cc_cv_number`
- `e_commerce_indicator=recurring`

See [Credit Card Services Using the SCMP API \(PDF | HTML\)](#) for detailed descriptions of request fields.

To manually preauthorize an eCheck customer profile:

Step 1 Request the `ics_pay_subscription_create` service. See "eCheck," page 27.

Step 2 Include the following fields:

- `ics_applications`—set to `ics_ecp_debit`.
 - `ecp_payment_mode`—set to 1.
-

PINless Debit Validation

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

To validate a PINless debit card you must request the `ics_pinless_debit_validate` service before requesting the `ics_pay_subscription_create` service.

For detailed information about requesting the `ics_pinless_debit_validate` service, see the *PINless Debit Card Services Using the SCMP API* ([PDF](#) | [HTML](#)).

Creating an On-Demand Customer Profile

Credit Card without a Setup Fee

**Important**

You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile,"](#) page 20.

To create a customer a profile without a setup fee:

Step 1 Set the `ics_applications` field to `ics_pay_subscription_create`.

Step 2 Include the following fields in the request:

- `bill_address1`
- `bill_city`
- `bill_country`
- `bill_state`
- `bill_zip`
- `card_type`
- `currency`
- `customer_cc_expmo`
- `customer_cc_expyr`
- `customer_cc_number`
- `customer_email`
- `customer_firstname`
- `customer_lastname`
- `merchant_id`
- `merchant_ref_number`
- `recurring_frequency`—set to `on-demand`.

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

Credit Card with a Setup Fee



Important

You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile," page 20](#).

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

Step 1 Set the **ics_applications** service field to `ics_auth,ics_pay_subscription_create, ics_bill`. Authorizes the setup fee amount and captures the setup fee.

Step 2 Include the following fields in the request:

- `bill_address1`
- `bill_city`
- `bill_country`
- `bill_state`
- `bill_zip`
- `card_type`
- `currency`
- `customer_cc_expmo`
- `customer_cc_expyr`
- `customer_cc_number`
- `customer_email`
- `customer_firstname`
- `customer_lastname`
- `grand_total_amount`—setup fee amount.
- `merchant_id`
- `merchant_ref_number`
- `recurring_frequency`—set to `on-demand`.

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Including the Payment Network Token



Important

You can request an authorization before requesting a subscription create. For the authorization request details, see *Payment Network Tokenization Using the SCMP API* ([HTML](#) | [PDF](#)).

To create a customer profile including the payment network token:

Step 1 Set the `ics_applications` field to `ics_auth,ics_pay_subscription_create`.

Step 2 For Visa cards include the following fields:

- `card_type=001`
- `cavv`—populate with the cryptogram value.
- `e_commerce_indicator=vbv`.
- `xid`—populate with the cryptogram value.

For Mastercard cards include the following fields:

- `card_type=002`.
- `cavv`—populate with the cryptogram value.
- `e_commerce_indicator=spa`.
- `ucaf_collection_indicator=2`.

For American Express cards include the following fields:

- `card_type=003`.
- `cavv`—populate with block A of the cryptogram value.
- `e_commerce_indicator=aesk`.
- `xid`—populate with block B of the cryptogram value.

Step 3 Include the following fields in the request:

- `bill_address1`
- `bill_city`
- `bill_country`
- `bill_state`
- `bill_zip`
- `currency`
- `customer_email`

- `customer_firstname`
- `customer_lastname`
- `customer_cc_expmo`—populate with the network token expiration month obtained your payment network token provider.
- `customer_cc_expyr`—populate with the network token expiration year obtained your payment network token provider.
- `customer_cc_number`—populate with the network token value obtained from your payment network token provider.
- `merchant_id`
- `merchant_ref_number`
- `payment_network_token_requestor_id`—this field is supported only for CyberSource through VisaNet.
- `payment_network_token_transaction_type`—set to 1.
- `recurring_frequency`—set to `on-demand`.

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

eCheck



Important

You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile,"](#) page 20.

To create an eCheck customer a profile:

Step 1 Set the `ics_applications` service field to `ics_pay_subscription_create`.

Step 2 Include the following fields in the request:

- `bill_address1`
- `bill_city`
- `bill_company_tax_id`—contact your TeleCheck representative to learn whether this field is required or optional.

- bill_country
- bill_state
- bill_zip
- currency
- customer_email
- customer_firstname
- customer_lastname
- customer_phone—contact your payment processor representative to learn whether this field is required or optional.
- date_of_birth
- driver_license_no—contact your TeleCheck representative to learn whether this field is required or optional.
- driver_license_state—contact your TeleCheck representative to learn whether this field is required or optional.
- ecp_account_no
- ecp_account_type
- ecp_check_no—contact your payment processor representative to learn whether this field is required or optional.
- ecp_rdfi
- ecp_sec_code—required field if your processor is TeleCheck.—this field is required if your processor is TeleCheck.
- merchant_id
- merchant_ref_number
- recurring_frequency—set to on-demand.
- subscription_payment_method—set to check.

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

PINless Debit



Important

You must validate the customer account before the customer profile is created. See ["PINless Debit Validation," page 23](#).

To create a PINless debit customer profile:

Step 1 Set the `ics_applications` service field to `ics_pay_subscription_create`.

Step 2 Include the following fields in the request:

- `bill_address1`
- `bill_city`
- `bill_country`
- `bill_state`
- `bill_zip`
- `currency`
- `customer_cc_expmo`
- `customer_cc_expyr`
- `customer_cc_number`
- `customer_email`
- `customer_firstname`
- `customer_lastname`
- `merchant_id`
- `merchant_ref_number`
- `recurring_frequency`—set to `on-demand`.
- `subscription_payment_method`—set to `pinless debit`.

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Updating a Customer Profile

**Important**

You can update all fields except the **recurring_frequency** field. If your account is configured to use a 16-digit format-preserving profile ID (see ["Profile ID," page 11](#)), and you update the card number, you receive a new profile ID if the last four digits of the new card number are different from the previous card number. The status of the previous profile ID changes to *superseded*. You cannot update, delete, or cancel a customer profile that has a status of *superseded*.

Updating Card Account Number

To update a customer's card account number:

Step 1 Set the **ics_applications** service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `card_type`
- `customer_cc_expmo`—this field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See ["Relaxed Requirements for Address Data and Expiration Date," page 15](#).
- `customer_cc_expyr`—this field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See ["Relaxed Requirements for Address Data and Expiration Date," page 15](#).
- `customer_cc_number`.
- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

**Note**

When you update the card number for a customer profile, CyberSource recommends that you validate the customer profile. See ["Validating a Customer Profile," page 20](#). New billing and shipping information can be included in the request.

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Removing Card Expiration Dates

To remove a customer's card expiration dates:

Step 1 Set the **ics_applications** service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `customer_cc_expmo`—set to 0 or include an empty value in this field.
- `customer_cc_expyr`—set to 0 or include an empty value in this field.
- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

Replacing Card Information With a Payment Network Token

You can replace the customer's card information, which is stored in the customer profile, with a payment network token. For more information about payment network tokens, see ["Payment Network Token,"](#) page 10.



Note

Updated billing and shipping information can also be included in the request. To remove a customer profile value, include the relevant API field in the request but do not include a value for the field.

To replace a customer's card information with a payment network token:

Step 1 Set the **ics_applications** service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `card_type`—must be 001, 002, or 003.
- `customer_cc_expmo`—populate with the network token expiration month obtained from your payment network token provider.
- `customer_cc_expyr`—populate with the network token expiration year obtained from your payment network token provider.

- `customer_cc_number`—populate with the network token value obtained from your payment network token provider
- `merchant_id`
- `merchant_ref_number`
- `payment_network_token_transaction_type`—set to 1.
- `payment_network_token_requestor_id`—this field is supported only for CyberSource through VisaNet.
- `subscription_id`

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

Updating Payment Network Token Information

You can update the payment network token information that is stored in the customer profile. For more information about payment network tokens, see "[Payment Network Token](#)," page 10.

**Note**

Updated billing and shipping information can also be included in the request. To remove a customer profile value, include the relevant API field in the request but do not include a value for the field.

To update a customer's payment network token:

Step 1 Set the **ics_applications** service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `card_type`—must be 001, 002, or 003.
- `customer_cc_expmo`—populate with the network token expiration month obtained from your payment network token provider.
- `customer_cc_expyr`—populate with the network token expiration year obtained from your payment network token provider.
- `customer_cc_number`—populate with the network token value obtained from your payment network token provider.
- `merchant_id`
- `merchant_ref_number`
- `payment_network_token_requestor_id`—this field is supported only for CyberSource through VisaNet.
- `payment_network_token_transaction_type`—set to 1.
- `subscription_id`

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

Replacing a Payment Network Token With Card Information

You can replace the customer's payment network token, which is stored in the customer profile, with the customer's card information instead. For more information about payment network tokens, see ["Payment Network Token," page 10](#).

**Note**

Updated billing and shipping information can also be included in the request. To remove a customer profile value, include the relevant API field in the request, but do not include a value for the field.

To update a customer's payment network token to card information:

Step 1 Set the `ics_applications` service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `card_type`
- `customer_cc_expmo`
- `customer_cc_expyr`
- `customer_cc_number`
- `merchant_id`
- `merchant_ref_number`
- `payment_network_token_requestor_id`—include an empty value in this field.
- `payment_network_token_transaction_type`—include an empty value in this field.
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Updating an eCheck Account Number



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

To update an eCheck account number:

Step 1 Set the **ics_applications** service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `ecp_account_no`
- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Changing the Payment Method of a Customer Profile



You must validate the customer account before the customer profile is created. See ["Validating a Customer Profile," page 20](#). When you create a customer profile from an existing transaction, the account is already validated.



You cannot change the payment method to or from the *Other* payment method. The *Other* payment method enables you to store data securely in a customer profile. This payment method is useful if you do not intend to use the customer profile for payment transactions. See ["Optional Data Storage," page 40](#).

To change the payment method of a customer profile:

Step 1 Set the `ics_applications` service field to `ics_pay_subscription_update`.

Step 2 Include the following fields in the request:

- `merchant_id`
- `merchant_ref_number`
- `subscription_id`
- `subscription_payment_method`—change to `credit card` (see ["Credit Card without a Setup Fee," page 24](#)), `check` (see ["eCheck," page 27](#)), or `pinless debit` (see ["PINless Debit," page 29](#)).

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Requesting an On-Demand Transaction

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

- Credit cards—authorization, sale (authorization and capture combined), and credit.
- Electronic checks—debit and credit.
- PINless debits—debit.

To request an on-demand sale transaction:

Step 1 Set the **ics_applications** service field to `ics_auth,ics_bill`.

Step 2 Include the following fields in the request:

- `currency`
- `grand_total_amount`
- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

To request an on-demand credit transaction:

Step 1 Set the **ics_applications** service field to `ics_credit`.

Step 2 Include the following fields in the request:

- `currency`
- `grand_total_amount`
- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields.

Converting a Transaction to a Customer Profile

**Important**

Transaction information resides in the CyberSource database for 60 days after the transaction is processed. When you create a customer profile from an existing transaction, the account is already validated. You can charge a setup fee. See "[Charging a Setup Fee](#)," page 20.

**Note**

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

To convert a transaction to a customer profile:

Step 1 Set the **ics_applications** field to `ics_pay_subscription_create`.

Step 2 Include the following fields in the request:

- `merchant_id`
- `merchant_ref_number`
- `payment_request_id`—include the **request_id** value returned from the original transaction request.
- `recurring_frequency`—set to `on-demand`.

See [Appendix A, "API Fields,"](#) on page 43, for detailed descriptions of the request and reply fields. See [Appendix B, "Examples,"](#) on page 75, for a request and reply example.

Retrieving a Customer Profile

To retrieve a customer profile:

Step 1 Set the `ics_applications` field to `ics_pay_subscription_retrieve`.

Step 2 Include the following fields in the request:

- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Deleting a Customer Profile



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

To delete a customer profile:

Step 1 Set the `ics_applications` field to `ics_pay_subscription_delete`.

Step 2 Include the following fields in the request:

- `merchant_id`
- `merchant_ref_number`
- `subscription_id`

See [Appendix A, "API Fields," on page 43](#), for detailed descriptions of the request and reply fields. See [Appendix B, "Examples," on page 75](#), for a request and reply example.

Additional Features

Optional Data Storage

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

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

- `merchant_secure_data_1` to `4`—CyberSource encrypts this data before storing it in the database. The validation performed on these fields is a size check. Fields 1 to 3 are string (100) and the fourth field is string (2K). You can include any data in the encrypted fields.
- `merchant_defined_data1` to `4`—CyberSource does not encrypt these fields before storing them in the database. Legal limitations exist on the type of data that you can include in the unencrypted fields.



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



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

Visa Bill Payment Program

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

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

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

When you process a one-time credit, set the **bill_payment** field to **Y**. 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 SCMP API* ([PDF](#) | [HTML](#)).

Customer Profile Sharing



Important

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

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

You can:

- Create a customer subscription by converting an existing transaction that was processed with a CyberSource merchant ID other than your own.
- Retrieve customer profile information—in your request include your merchant ID and the profile ID of the customer profile (see "[Retrieving a Customer Profile](#)," page 39). If the customer profile is not enabled for profile sharing, CyberSource returns the ESYSTEM reply flag (see "[Reply Flags](#)," page 70).
- Update customer profile information—in your request include your merchant ID and the profile ID of the customer profile (see "[Updating a Customer Profile](#)," page 30). If the customer profile is not enabled for profile sharing, CyberSource returns the ESYSTEM reply flag (see "[Reply Flags](#)," page 70).

- Perform an on-demand transaction using the customer profile—in your request include your merchant ID and the profile ID of the customer profile (see "[Requesting an On-Demand Transaction](#)," page 37). If the customer profile is not enabled for profile sharing, CyberSource returns the ESYSTEM reply flag (see "[Reply Flags](#)," page 70).

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

Account Updater

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

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

Merchant-Initiated Transactions

Tokenization simplifies compliance with mandates for merchant-initiated transactions and credentials-on-file. This helps you to achieve higher authorization success rates. For information about merchant-initiated transactions, see:

[Merchant-Initiated Transactions FAQ](#)

API Fields

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

Service name	Shortened Name
ics_pay_subscription_create	Create
ics_pay_subscription_delete	Delete
ics_pay_subscription_update	Update
ics_pay_subscription_retrieve	Retrieve

Data Types

Data Type	Description
Date and time	<p>Format is YYYY-MM-DDThhmmssZ, where:</p> <ul style="list-style-type: none"> ■ T separates the date and the time ■ Z indicates Coordinated Universal Time (UTC), which is also known as Greenwich Mean Time <p>Example 2018-08-11T224757Z equals 10:47:57 P.M. on August 11, 2012</p>
Decimal	<p>Number that includes a decimal point</p> <p>Examples 23.45, -0.1, 4.0, 90809.0468</p>
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
Nonnegative integer	Whole number greater than or equal to zero {0, 1, 2, 3, ...}
Positive integer	Whole number greater than zero {1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Request Fields

Table 4 Request Fields

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
amount	Use this field with the offer0 field or use the grand_total_amount 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 20.	Create (see description) Update (O)	String (15)
bill_address1	First line of the billing address. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	CyberSource through VisaNet: String (40) Worldpay VAP: String (35) Moneris: String (50) All other processors: String (60)
bill_address2	Second line of the billing address.	Create (O) Update (O)	CyberSource through VisaNet: String (40) Worldpay VAP: String (35) Moneris: String (50) All other processors: String (60)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
bill_city	City of the billing address. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (50)
bill_company_tax_id	Tax identifier for the customer's company. Important Contact your TeleCheck representative to find out whether this field is required or optional.	Create (see description) Update (see description)	String with numbers only (9)
bill_country	Country code for the shipping address. Use the two-character ISO country codes . Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (2)
bill_payment	Indicates that the payments for this customer profile are for the Bill Payment program. See " Visa Bill Payment Program ," page 41. This feature applies to all transactions using this customer profile. Possible values: <ul style="list-style-type: none"> ■ N (default): Not a Visa Bill Payment. ■ Y: Visa Bill Payment. 	Create (O) Update (O)	String (1)
bill_state	State or province in the billing address. Use the two-character ISO state and province code . Important Required when the billing country is the U.S. or Canada; otherwise, optional. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (See description) ¹ Update (O)	String (2)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
bill_zip	<p>Postal code for the billing address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	<p>Create (R)¹</p> <p>Update (O)</p>	<p>CyberSource through VisaNet: String (9)</p> <p>All other processors: String (10)</p>
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
card_type	Type of card to authorize. Possible values: <ul style="list-style-type: none"> ■ 001: Visa ■ 002: MasterCard, Eurocard—European regional brand of MasterCard. ■ 003: American Express ■ 004: Discover ■ 005: Diners Club ■ 006: Carte Blanche ■ 007: JCB ■ 014: EnRoute ■ 021: JAL ■ 024: Maestro (UK Domestic) ■ 031: Delta—Use this value only for Global Collect. For other processors, use 001 for all Visa card types. ■ 033: Visa Electron ■ 034: Dankort ■ 036: Cartes Bancaires ■ 037: Carta Si ■ 042: Maestro (International) ■ 043: GE Money UK card—before setting up your system to work with GE Money UK cards, contact the CyberSource UK Customer Support group. 	Create (R for card payments) Update (O)	String (3)
cavv	Visa Cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats. American Express Block A of the cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.	Create (R-required for payment network token transactions with Visa and American Express)	String (40)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
comments	Optional comments you have for the customer profile. Warning Do not use this field to store sensitive customer information.	Create (O) Update (O)	String (255)
company_name	Name of the customer's company. CyberSource through VisaNet Credit card networks cannot process transactions that contain non-ASCII characters. CyberSource through VisaNet accepts and stores non-ASCII characters correctly and displays them correctly in reports. However, the limitations of the credit card networks prevent CyberSource through VisaNet from transmitting non-ASCII characters to the credit card networks. Therefore, CyberSource through VisaNet replaces non-ASCII characters with meaningless ASCII characters for transmission to the credit card networks.	Create (O) Update (O)	String (60)
currency	Currency used by the customer.	Create (R) Update (O)	String (3)
customer_account_id	Your identifier for the customer.	Create (O) Update (O)	String (100)
customer_cc_cv_indicator	Indicates whether a card verification number was included in the request. Possible values: <ul style="list-style-type: none"> ■ 0 (default): CVN service not requested. This default is used if you do not include customer_cc_cv_number in the request. ■ 1 (default): CVN service requested and supported. This default is used if you include customer_cc_cv_number in the request. ■ 2: CVN on credit card is illegible. ■ 9: CVN was not imprinted on credit card. 	Create (O)	Integer (1)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
customer_cc_cv_number	<p>Card verification number. Include this field only if you are using automatic preauthorization and want to run the CVN check. See "Validating a Customer Profile," page 20.</p> <p>Do not include this field if you are creating a customer profile that uses Global Collect.</p>	Create (O)	Integer (4)
customer_cc_expmo	<p>Expiration month.</p> <p>Format: MM</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	Create (R for card payments) Update ¹	String (2)
customer_cc_expyr	<p>Expiration year.</p> <p>Format: YYYY</p> <p>FDC Nashville Global and FDMS South You can send in 2 digits or 4 digits. When you send in 2 digits, they must be the last 2 digits of the year.</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>	Create (R for card payments) Update ¹	FDC Nashville Global and FDMS South: String (See description) All other processors: String (4)
customer_cc_issue_number	<p>Indicates how many times a Maestro (UK Domestic) card has been issued to the account holder. The card might or might not have an issue number; the field is required if the card has an issue number. The number can consist of one or two digits, and the first digit might be a zero. Include exactly what is printed on the card—a value of 2 is different than a value of 02. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card.</p>	Create (see description) Update (O)	String (5)
customer_cc_number	Card account number.	Create (R for card payments) Update (O)	Integer (20)

¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See [Relaxed Requirements for Address Data and Expiration Date, page 15](#). **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
customer_cc_startmo	Month of the start of the Maestro (UK Domestic) card validity period. The card might or might not have a start date printed on it; the field is required if the card has a start date. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: MM Possible values: 01 through 12	Create (see description) Update (O)	Integer (2)
customer_cc_startyr	Year of the start of the Maestro (UK Domestic) card validity period. The card might or might not have a start date printed on it; the field is required if the card has a start date. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: YYYY	Create (see description) Update (O)	Integer (4)
customer_email	Customer email address. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (255)
customer_firstname	Customer first name. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (60)
customer_lastname	Customer last name. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.	Create (R) ¹ Update (O)	String (60)
customer_phone	Customer phone number. When you create a customer profile, the requirements depend on the payment method: <ul style="list-style-type: none"> ■ Credit cards—optional. ■ Electronic checks—contact your payment processor representative to find out if this field is required or optional. ■ PINless debits—optional. 	Create (see description) Update (see description)	String (15)
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
date_of_birth	Customer date of birth. Format: YYYY-MM-DD or YYYYMMDD	Create (O) Update (O)	String (10)
decision_manager_enabled	Indicates whether to use Decision Manager for a customer profile. Use this field only if you are using Decision Manager and your system is configured to use automatic preauthorizations. See " Automatically Preauthorizing an Account ," page 21. If your account is enabled for Decision Manager, Decision Manager is 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: <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. For more information about Decision Manager, see the <i>Decision Manager Using the SCMP API Developer Guide</i> (PDF HTML)	Create (O)	String (5)
decline_avs_flags	List of AVS codes that cause the customer profile creation request to be declined for AVS reasons. Use a space to separate the codes in the list. Use this field only if you are using automatic preauthorization. See " AVS and CVN Codes ," page 71. Important You must include the value N in the list if you want to receive declines for the AVS code N.	Create (O)	String (255)
driver_license_no	Customer driver's license number. Important Contact your TeleCheck representative to learn whether this field is required or optional.	Create (see description) Update (see description)	String (30)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See <i>Relaxed Requirements for Address Data and Expiration Date</i>, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
driver_license_state	State or province in which the customer's driver's license was issued. Use the two-character ISO state and province code . Important Contact your TeleCheck representative to learn whether this field is required or optional.	Create (see description) Update (see description)	String (2)
e_commerce_indicator	In-App Transactions Type of payer authentication fields that are being used for the payment network tokenization transaction. Possible values: <ul style="list-style-type: none"> ■ aesk: American Express SafeKey ■ spa: MasterCard SecureCode ■ vbv: Verified by Visa 	Create (R-required for payment network token transaction)	String (13)
ecp_account_no	Checking account number.	Create (R for eCheck payments) Update (O)	Integer (17)
ecp_account_type	Checking account type. Possible values: <ul style="list-style-type: none"> ■ C: checking ■ S: savings (USD only) ■ X: corporate checking (USD only) ■ G: general ledger 	Create (R for eCheck payments) Update (O)	String (1)
ecp_rdfi	Bank routing number. This value is also known as the <i>transit number</i> .	Create (R for eCheck payments) Update (O)	Integer (9)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
eCP_sec_code	<p>Important This field is required if your processor is TeleCheck.</p> <p>Code that specifies the authorization method for the transaction. Possible values:</p> <ul style="list-style-type: none"> ■ CCD: corporate cash disbursement—charge or credit 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—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—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—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. 	<p>Create (R)</p> <p>Update (O)</p>	String (3)
grand_total_amount	<p>Use this field or use the offer0 line item field with the amount field to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Validating a Customer Profile," page 20.</p>	<p>Create (see description)</p> <p>Update (O)</p>	Decimal (15)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
ics_applications	Comma-separated list of CyberSource services to process.	Required for all services	String (255)
ignore_avs	<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. See "Automatically Preauthorizing an Account," page 21.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ true: ignore the results of the AVS check and create the customer profile. ■ false (default): if the AVS check fails, do not create the customer profile. <p>When this value is true, the list in the decline_avs_flags field is ignored.</p>	Create (O)	String (5)
ignore_card_expiration	<p>Indicates whether to ignore a card expiration date when creating a subscription.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ N: do not ignore the card expiration date. ■ Y: ignore the card expiration date. <p>Note If this field is set to Y, the recurring_disable_auto_auth field must also be set to Y.</p>	Create (O)	String (1)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
merchant_defined_data1	<p>Four fields that you can use to store information. These values are displayed on the Subscription Transaction Details page on the Business Center. See "Optional Data Storage," page 40.</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 (64)
merchant_defined_data2		Update (O)	
merchant_defined_data3			
merchant_defined_data4			
merchant_descriptor_alternate	For the description, used-by information, data type, and length, see Merchant Descriptors in Credit Card Services Using the SCMP API (PDF HTML) .	Create Retrieve Update Delete	
merchant_id	Your CyberSource merchant ID.	Required for all services	String (30)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
merchant_ref_number	Merchant-generated order reference or tracking number.	Required for all services	Asia, Middle East, and Africa Gateway: String (40) Atos: String (32) All other processors: String (50)
merchant_secure_data1 merchant_secure_data2 merchant_secure_data3	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. See "Optional Data Storage," page 40.	Create (O) Update (O)	String (100)
merchant_secure_data4	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. See "Optional Data Storage," page 40. Note The maximum number of characters allowed is 2048.	Create (O) Update (O)	String (2K)
offer0	Use the offer0 line item with the amount field or use grand_total_amount to specify the amount for a setup fee or for a manual preauthorization. These features are not available for all payment methods. See "Validating a Customer Profile," page 20.	Create (see description) Update (O)	String (50)
payment_network_token_requestor_id	Value that identifies your business and indicates that the cardholder's account number is tokenized. This value is assigned by the token service provider and is unique within the token service provider's database. See "Including the Payment Network Token," page 26. Note This field is supported only for CyberSource through VisaNet and FDC Nashville Global.	Create (O)	Integer (11)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
payment_network_token_transaction_type	Type of transaction that provided the token data. This value does not specify the token service provider; it specifies the entity that provided you with information about the token. See "Including the Payment Network Token," page 26 . Value: 1: In-app transaction. An application on the customer's mobile device provided the token data for an e-commerce transaction.	Create (R-required for payment network token transaction)	String (1)
payment_request_id	The request_id value returned from a previous request for an authorization transaction. This value links the previous request to the current follow-on request. Important This field is required when you convert an existing authorization to a customer profile.	Create (see description)	String (26)
payment_request_token	The request_token value returned from a previous request for a credit card authorization. This value links the previous request to the current follow-on request. This field is an encoded string that does not contain any confidential information, such as account numbers or card verification numbers. The string can contain up to 256 characters. You must include this field or order_request_token when converting an existing authorization to a customer profile.	Create (see description)	String (256)
recurring_disable_autoauth	Indicates whether to turn off the preauthorization check when creating this customer profile. See "Validating a Customer Profile," page 20 . Possible values: <ul style="list-style-type: none"> ■ N: no, go ahead and perform the preauthorization for this customer profile. ■ Y: yes, turn off the preauthorization check for this customer profile. 	Create (O)	String (1)
recurring_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)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See [Relaxed Requirements for Address Data and Expiration Date, page 15](#). **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
recurring_payment_amount	Amount of the customer profile payments. This value can be 0.	Create (R) Update (O)	String (15)
ship_to_address1	First line of the shipping address.	Create (O) Update (O)	String (60)
ship_to_address2	Second line of the shipping address.	Create (O) Update (O)	String (60)
ship_to_city	City of the shipping address.	Create (O) Update (O)	String (50)
ship_to_company_name	Name of the company receiving the product.	Create (O)	String (60)
ship_to_country	Country code for the shipping address. Use the two-character ISO country codes .	Create (O) Update (O)	String (2)
ship_to_firstname	First name of the person receiving the product.	Create (O) Update (O)	String (60)
ship_to_lastname	Last name of the person receiving the product.	Create (O) Update (O)	String (60)
ship_to_phone	Phone number for the shipping address.	Create (O) Update (O)	String (15)
ship_to_state	State or province in the billing address. Use the two-character ISO state and province code .	Create (O) Update (O)	String (2)

1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
ship_to_zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (10)
subscription_id	<p>Value that identifies the customer profile for which the service is being requested. This value is sent to you when the customer profile is created. See "Profile ID," page 11.</p>	<p>Update (R)</p> <p>Retrieve (R)</p>	String (26)
subscription_payment_method	<p>Method of payment. See "Supported Processors and Payment Methods," page 12. Possible values:</p> <ul style="list-style-type: none"> ■ credit card (default when creating a customer profile) ■ check ■ other ■ pinless debit <p>Create: this field is required when you create a customer profile with a payment method other than credit card.</p>	<p>Create (see description)</p> <p>Update (O)</p>	String (20)
subscription_title	<p>Name or title of the customer profile.</p>	<p>Create (O)</p> <p>Update (O)</p>	String (60)
timeout	<p>Number of seconds the system waits before returning a timeout error. The default is 110 seconds.</p>	<p>Optional for all services</p>	Positive integer (3)
<p>¹ This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Table 4 Request Fields (Continued)

Field Name	Description	Used By & Required (R)/ Optional (O)	Data Type & Length
ucaf_collection_indicator	Required field for payment network tokenization transactions with MasterCard. Set the value for this field to 2.	Create (R-required for payment network token transactions with MasterCard)	String with numbers only (1)
xid	<p>Visa Cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.</p> <p>American Express Block B of the cryptogram for payment network tokenization transactions. The value for this field must be 28-character base64 or 40-character hex binary. All cryptograms use one of these formats.</p>	Create (R-required for payment network token transactions with Visa and American Express)	String (40)
<p>1 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See Relaxed Requirements for Address Data and Expiration Date, page 15. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p>			

Reply Fields

Table 5 Reply Fields

Field Name	Description	Returned By	Data Type & Length
auth_rcode	<p>Indicates whether the authorization was successful. Possible values:</p> <ul style="list-style-type: none"> ■ -1: An error occurred. ■ 0: The request was declined. ■ 1: The request was successful. 	Create	Integer (1)
auth_rflag	One-word description of the result of the authorization request. See "Reply Flags," page 70 .	Create	String (50)
auth_rmsg	Message that explains the reply flag auth_rflag . Do not display this message to the customer, and do not use this field to write an error handler.	Create	String (255)
auth_auth_amount	Amount that was authorized.	Create	Decimal (15)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
auth_auth_avs	AVS result code. See "AVS and CVN Codes," page 71 .	Create	String (1)
auth_auth_code	Authorization code. Returned only if the processor returns this value. See "Encoded Account Numbers" and "Zero Amount Authorizations" in <i>Credit Card Services Using the SCMP API</i> (PDF HTML).	Create	String (7)
bill_rcode	Indicates whether the capture was successful. Possible values: <ul style="list-style-type: none">■ -1: An error occurred.■ 0: The request was declined.■ 1: The request was successful.	Create	Integer (1)
bill_rflag	One-word description of the result of the capture request. See "Reply Flags," page 70 .	Create	String (50)
bill_rmsg	Message that explains the reply flag bill_rflag . Do not display this message to the customer, and do not use this field to write an error handler.	Create	String (255)
bill_bill_amount	Amount that was captured.	Create	Decimal (15)
client_lib_version	Information about the client library used to request the transaction.	All services	String (50)
ics_rcode	One-digit code that indicates whether the entire request was successful. Possible values: <ul style="list-style-type: none">■ -1: an error occurred■ 0: the request was declined■ 1: the request was successful	All services	Integer (1)
ics_rflag	One-word description of the result of the entire request. See "Reply Flags," page 70 .	All services	String (50)
ics_rmsg	Message that explains the reply flag ics_rflag . Do not display this message to the customer, and do not use this field to write an error handler.	All services	String (255)
merchant_ref_number	Order reference or tracking number that you provided in the request.	All services	String (50)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_create_rcode	One-digit code that indicates whether the specific service request was successful. Possible values: <ul style="list-style-type: none"> ■ -1: an error occurred ■ 0: the request was declined ■ 1: the request was successful 	Create	Integer (1)
pay_subscription_create_rflag	One-word description of the result of the specific service request. See "Reply Flags," page 70 .	Create	String (50)
pay_subscription_create_rmsg	Message that explains the reply flag pay_subscription_create_rflag . Do not display this message to the customer, and do not use this field to write an error handler.	Create	String (255)
pay_subscription_create_subscription_id	Identifier for the customer profile.	Create	String (26)
pay_subscription_delete_rcode	One-digit code that indicates whether the specific service request was successful. Possible values: <ul style="list-style-type: none"> ■ -1: an error occurred ■ 0: the request was declined ■ 1: the request was successful 	Delete	Integer (1)
pay_subscription_delete_rflag	One-word description of the result of the specific service request. See "Reply Flags," page 70 .	Delete	String (50)
pay_subscription_delete_rmsg	Message that explains the reply flag pay_subscription_delete_rflag field. Do not display this message to the customer, and do not use this field to write an error handler.	Delete	String (255)
pay_subscription_delete_subscription_id	Identifier for the customer profile.	Delete	String (26)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_retrieve_merchant_defined_data1	Four fields for storing information. To understand the kinds of data storage fields see "Optional Data Storage," page 40.	Retrieve	String (64)
pay_subscription_retrieve_merchant_defined_data2			
pay_subscription_retrieve_merchant_defined_data3			
pay_subscription_retrieve_merchant_defined_data4			
pay_subscription_retrieve_merchant_secure_data1	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 40.	Retrieve	String (100)
pay_subscription_retrieve_merchant_secure_data2			
pay_subscription_retrieve_merchant_secure_data3			
pay_subscription_retrieve_merchant_secure_data4	Data that was encrypted. CyberSource decrypts the data before returning it. See "Optional Data Storage," page 40.	Retrieve	String (2K)
pay_subscription_retrieve_bill_address1	First line of the billing address.	Retrieve	String (60)
pay_subscription_retrieve_bill_address2	Second line of the billing address.	Retrieve	String (60)
pay_subscription_retrieve_bill_city	City of the customer address.	Retrieve	String (50)
pay_subscription_retrieve_bill_company_tax_id	Company's tax identifier.	Retrieve	String with numbers only (9)
pay_subscription_retrieve_bill_country	Country code for the billing address. Use the two-character ISO codes .	Retrieve	String (2)
pay_subscription_retrieve_bill_payment	Indicates whether the payments for this customer profile are for the Visa Bill Payment program. Possible values: <ul style="list-style-type: none"> ■ N (default): not a Visa Bill Payment. ■ Y: Visa Bill Payment. See "Visa Bill Payment Program," page 41.	Retrieve	String (1)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_retrieve_bill_state	State or province of billing address. Use the two-character ISO state and province codes.	Retrieve	String (2)
pay_subscription_retrieve_bill_zip	Postal code in the billing address.	Retrieve	String (10)
pay_subscription_retrieve_card_type	Card type.	Retrieve	String (3)
pay_subscription_retrieve_comments	Comments that you included for the customer profile.	Retrieve	String (255)
pay_subscription_retrieve_company_name	Name of the customer's company.	Retrieve	String (40)
pay_subscription_retrieve_currency	Currency used by the customer.	Retrieve	String (5)
pay_subscription_retrieve_customer_account_id	Your identifier for the customer.	Retrieve	String (50)
pay_subscription_retrieve_customer_cc_expmo	Expiration month for the card. Format: MM	Retrieve	Integer (2)
pay_subscription_retrieve_customer_cc_expyr	Expiration year for the card. Format: YYYY	Retrieve	Integer (4)
pay_subscription_retrieve_customer_cc_issue_number	Issue number for the Maestro (UK Domestic) card.	Retrieve	String (5)
pay_subscription_retrieve_customer_cc_number	Card account number.	Retrieve	String (20)
pay_subscription_retrieve_customer_cc_startmo	Start month for the Maestro (UK Domestic) card. Format: MM	Retrieve	Integer (2)
pay_subscription_retrieve_customer_cc_startyr	Start year for the Maestro (UK Domestic) card. Format: YYYY	Retrieve	Integer (4)
pay_subscription_retrieve_customer_email	Customer email address.	Retrieve	String (255)
pay_subscription_retrieve_customer_firstname	Customer first name.	Retrieve	String (60)
pay_subscription_retrieve_customer_lastname	Customer last name.	Retrieve	String (60)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_ retrieve_customer_phone	Customer phone number.	Retrieve	String (20)
pay_subscription_ retrieve_date_of_birth	Date of birth of the customer. Format: YYYY-MM-DD or YYYYMMDD.	Retrieve	String (10)
pay_subscription_ retrieve_driver_license_ no	Driver's license number of the customer.	Retrieve	String (30)
pay_subscription_ retrieve_driver_license_ state	State or province where the customer's driver's license was issued.	Retrieve	String (2)
pay_subscription_ retrieve_ecp_account_no	Bank account number.	Retrieve	Integer (17)
pay_subscription_ retrieve_ecp_account_ type	Account type. Possible values: <ul style="list-style-type: none"> ■ C: checking ■ S: savings (USD only) ■ X: corporate checking (USD only) 	Retrieve	String (1)
pay_subscription_ retrieve_ecp_ authenticate_id	Identification number returned when an Authenticate request is processed and returned in subsequent monetary transactions.	Retrieve	Numeric (32)
pay_subscription_ retrieve_ecp_rdfi	Bank routing number.	Retrieve	Integer (9)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_ retrieve_ecp_sec_code	Code that specifies the authorization method for the transaction. Possible values: <ul style="list-style-type: none"> ■ CCD: corporate cash disbursement—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—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—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—charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. 	Retrieve	String (3)
pay_subscription_ retrieve_end_date	This field is not meaningful for customer profiles.	Retrieve	String (8)
pay_subscription_ retrieve_frequency	Frequency of payments for the customer profile. Possible value: <ul style="list-style-type: none"> ■ on-demand: no payment schedule 	Retrieve	String (20)
pay_subscription_ retrieve_merchant_ref_ number	Merchant-generated order reference or tracking number.	Retrieve	String (50)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_retrieve_merchant_secure_data4	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 40.	Retrieve	String (2048)
pay_subscription_retrieve_owner_merchant_id	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 is created with a CyberSource merchant ID for which sharing is enabled. See "Customer Profile Sharing," page 41.	Retrieve	String (30)
pay_subscription_retrieve_payments_left	This field is not meaningful for customer profiles.	Retrieve	Integer (3)
pay_subscription_retrieve_rcode	One-digit code that indicates whether the specific service request is successful. Possible values: <ul style="list-style-type: none"> ■ -1: an error occurred ■ 0: the request was declined ■ 1: the request was successful 	Retrieve	Integer (1)
pay_subscription_retrieve_recurring_amount	The payment amount for the customer profile.	Retrieve	String (15)
pay_subscription_retrieve_rflag	One-word description of the result of the specific service request. See "Reply Flags," page 70.	Retrieve	String (50)
pay_subscription_retrieve_rmsg	Message that explains the reply flag pay_subscription_retrieve_rflag field. Do not display this message to the customers and do not use this field to write an error handler.	Retrieve	String (255)
pay_subscription_retrieve_ship_to_address1	First line of the shipping address.	Retrieve	String (60)
pay_subscription_retrieve_ship_to_address2	Second line of the shipping address.	Retrieve	String (60)
pay_subscription_retrieve_ship_to_city	City of the shipping address.	Retrieve	String (50)
pay_subscription_retrieve_ship_to_company_name	Name of the company that is receiving the product.	Retrieve	String (60)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_retrieve_ship_to_country	Country code for the shipping address. Use the two-character ISO codes .	Retrieve	String (2)
pay_subscription_retrieve_ship_to_firstname	First name of the person receiving the product.	Retrieve	String (60)
pay_subscription_retrieve_ship_to_lastname	Last name of the person receiving the product.	Retrieve	String (60)
pay_subscription_retrieve_ship_to_state	State or province of shipping address. Use the two-character ISO state and province codes.	Retrieve	String (2)
pay_subscription_retrieve_ship_to_zip	Postal code in the shipping address.	Retrieve	String (10)
pay_subscription_retrieve_start_date	This field is not meaningful for customer profiles.	Retrieve	String (8)
pay_subscription_retrieve_status	Status of the customer profile. Possible values: <ul style="list-style-type: none"> ■ Cancelled: the customer profile has been canceled. ■ Current: the customer profile is active. ■ Superseded: the subscription or customer profile has been updated and a new subscription ID has been assigned to it. 	Retrieve	String (9)
pay_subscription_retrieve_subscription_id	Profile ID.	Retrieve	String (26)
pay_subscription_retrieve_subscription_idnew	The new profile ID that supersedes the previous profile ID for the customer profile.	Retrieve	String (16)
pay_subscription_retrieve_title	Name or title for the customer profile.	Retrieve	String (60)
pay_subscription_update_owner_merchant_id	CyberSource merchant ID that is used to create the customer profile for which the service is requested. This field is returned only if you are using profile sharing and only if you requested this service for a customer profile that is created with a CyberSource merchant ID for which sharing is enabled. See "Customer Profile Sharing," page 41 .	Update	String (30)

Table 5 Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
pay_subscription_update_rcode	One-digit code that indicates whether the specific service request is successful. Possible values: <ul style="list-style-type: none"> ■ -1: an error occurred ■ 0: the request was declined ■ 1: the request was successful 	Update	Integer (1)
pay_subscription_update_rflag	One-word description of the result of the specific service request. See "Reply Flags," page 70 .	Update	String (50)
pay_subscription_update_rmsg	Message that explains the reply flag pay_subscription_update_rflag . Do not display this message to the customer, and do not use this field to write an error handler.	Update	String (255)
pay_subscription_update_subscription_id	Identifier for the customer profile.	Update	String (26)
pay_subscription_update_subscription_id_new	The new subscription ID that supersedes the previous subscription ID for the customer profile or subscription.	Update	String (16)
request_id	Identifier for the request.	All services	String (26)
request_token	Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information, such as an account or card verification number. The string can contain a maximum of 256 characters.	All Services	String (256)

Reply Flags

The following table describes the reply flags returned by the SCMP API for customer profiles. For a discussion of reply codes, reply flags, and reply messages, see *Getting Started with CyberSource Advanced for the SCMP API* ([PDF](#) | [HTML](#)).



Note

Because CyberSource can add reply codes, reply flags, and reply messages at any time, you need to:

- 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 reply flag value to determine the result if it receives a reply code that it does not recognize.

Table 6 Reply Flags

Reply Flag	Description
DAVSNO	The credit card was accepted by the bank but refused by CyberSource because it did not pass the AVS check. AVS result is N.
DCALL	You must call the issuing bank to proceed with the transaction.
DCV	The credit card was accepted by the bank but refused by CyberSource because it did not pass the CVN check. CVN result is N.
DCARDEXPIRED	CyberSource declined the request because the card has expired.
DCARDREFUSED	The bank declined the transaction, including for reasons such as insufficient funds, which cannot be differentiated at authorization time from other transactions.
DCHECKREFUSED	The processor declined the electronic check transaction.
DINVALIDCARD	The card number did not pass CyberSource basic checks.
DINVALIDDATA	Data provided is not consistent with the request. For example, the customer profile has been superseded. See " Updating a Customer Profile ," page 30.
DMISSINGFIELD	The request is missing a required field.
ESYSTEM	System error. You must design your transaction management system to include a way to correctly handle CyberSource system errors. Depending on which payment processor is handling the transaction, the error can indicate a valid CyberSource system error or a processor rejection because of invalid data. In either case, CyberSource recommends that you do not design your system to endlessly retry sending a transaction in the case of a system error. See the documentation for the CyberSource client you are using for important information about how to handle system errors and retries.
ETIMEOUT	The request timed out.

Table 6 Reply Flags (Continued)

Reply Flag	Description
SOK	Transaction was successful.
SPARTIALAPPROVAL	Your authorization request was partially approved. See "Validating a Customer Profile," page 20.

AVS and CVN Codes

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

**Important**

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

International AVS Codes

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

Table 7 International AVS Codes

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

U.S. Domestic AVS Codes

Table 8 Domestic AVS Codes

Code	Response	Description
A	Partial match	Street address matches, but 5-digit and 9-digit postal codes do not match.
B	Partial match	Street address matches, but postal code is not verified.
C	No match	Street address and postal code do not match.
D & M	Match	Street address and postal code match.
E	Invalid	AVS data is invalid, or AVS is not allowed for this card type.
F	Partial match	Card member's name does not match, but billing postal code matches. Returned only for the American Express card type.
G		Not supported.
H	Partial match	Card member's name does not match, but street address and postal code match. Returned only for the American Express card type.
I	No match	Address not verified.
J	Match	Card member's name, billing address, and postal code match. Shipping information verified and chargeback protection guaranteed through the Fraud Protection Program. Returned only if you are registered to use AAV+ with the American Express Phoenix processor.
K	Partial match	Card member's name matches, but billing address and billing postal code do not match. Returned only for the American Express card type.
L	Partial match	Card member's name and billing postal code match, but billing address does not match. Returned only for the American Express card type.
M	Match	Street address and postal code match.
N	No match	One of the following: <ul style="list-style-type: none"> ■ Street address and postal code do not match. ■ Card member's name, street address, and postal code do not match. Returned only for the American Express card type.
O	Partial match	Card member's name and billing address match, but billing postal code does not match. Returned only for the American Express card type.
P	Partial match	Postal code matches, but street address not verified.
Q	Match	Card member's name, billing address, and postal code match. Shipping information verified but chargeback protection not guaranteed (Standard program). Returned only if you are registered to use AAV+ with the American Express Phoenix processor.
R	System unavailable	System unavailable.

Table 8 Domestic AVS Codes (Continued)

Code	Response	Description
S	Not supported	U.S.-issuing bank does not support AVS.
T	Partial match	Card member's name does not match, but street address matches. Returned only for the American Express card type.
U	System unavailable	Address information unavailable for one of these reasons: <ul style="list-style-type: none"> ■ The U.S. bank does not support non-U.S. AVS. ■ The AVS in a U.S. bank is not functioning properly.
V	Match	Card member's name, billing address, and billing postal code match. Returned only for the American Express card type.
W	Partial match	Street address does not match, but 9-digit postal code matches.
X	Match	Street address and 9-digit postal code match.
Y	Match	Street address and 5-digit postal code match.
Z	Partial match	Street address does not match, but 5-digit postal code matches.
1	Not supported	AVS is not supported for this processor or card type.
2	Unrecognized	The processor returned an unrecognized value for the AVS response.
3	Match	Address is confirmed. Returned only for PayPal Express Checkout.
4	No match	Address is not confirmed. Returned only for PayPal Express Checkout.

CVN Codes

Table 9 CVN Codes

Code	Description
D	The transaction was considered suspicious by the issuing bank.
I	The CVN failed the processor's data validation.
M	The CVN matched.
N	The CVN did not match.
P	The CVN was not processed by the processor for an unspecified reason.
S	The CVN is on the card but was not included in the request.
U	Card verification is not supported by the issuing bank.
X	Card verification is not supported by the card association.
1	Card verification is not supported for this processor or card type.

Table 9 CVN Codes (Continued)

Code	Description
2	An unrecognized result code was returned by the processor for the card verification response.
3	No result code was returned by the processor.

Examples

Creating a Customer Profile

Credit Card without a Setup Fee

Example 1 Request: Credit Card Profile without a Setup Fee

```
customer_firstname=John
customer_lastname=Smith
bill_address1=1295 charleston rd
bill_city=Mountain View
bill_state=ca
bill_zip=94042
bill_country=us
customer_email=demo@cybersource.com
currency=usd
customer_cc_number=4111111111111111
customer_cc_expmo=01
customer_cc_expyr=20
card_type=001
merchant_id=demomerchant
merchant_ref_number=TC54240-1
recurring_frequency=on-demand
ics_applications=ics_pay_subscription_create
```

Example 2 Reply: Credit Card Profile without a Setup Fee

```
ics_decision_reason_code=100
ics_rcode=1
ics_return_code=1000000
ics_rflag=SOK
ics_rmmsg=Request was processed successfully.
merchant_ref_number=TC54240-1
pay_subscription_create_rcode=1
pay_subscription_create_rflag=SOK
pay_subscription_create_rmmsg=Request was processed successfully.
pay_subscription_create_subscription_id=3829668893822130706689
pay_subscription_create_time=2013-10-28T132755Z
request_id=3829668893822130706689
```

Credit Card with a 5.00 Setup Fee

Example 3 Request: Credit Card Customer Profile with a 5.00 Setup Fee

```
customer_firstname=John
customer_lastname=Smith
bill_address1=1295 charleston rd
bill_city=Mountain View
bill_state=ca
bill_zip=94042
bill_country=us
customer_email=demo@cybersource.com
currency=usd
customer_cc_number=4111111111111111
customer_cc_expmo=01
customer_cc_expyr=20
card_type=001
grand_total_amount=5.00
merchant_id=demomerchant
merchant_ref_number=TC54240-1
recurring_frequency=on-demand
ics_applications=ics_pay_subscription_create
```

Example 4 Reply: Credit Card Customer Profile with a Setup Fee

```
auth_rcode=1
auth_rflag=SOK
auth_rmsg=Request was processed successfully.
auth_auth_amount=5.00
auth_auth_avs=Y
auth_auth_code=123456
bill_rcode=1
bill_rflag=SOK
bill_rmsg=Request was processed successfully.
bill_bill_amount=5.00
ics_rcode=1
ics_return_code=1000000
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54240-1
pay_subscription_create_rcode=1
pay_subscription_create_rflag=SOK
pay_subscription_create_rmsg=Request was processed successfully.
pay_subscription_create_subscription_id=3829668893822130706689
pay_subscription_create_time=2013-10-28T132755Z
request_id=3829668893822130706689
```

eCheck

Example 5 Request: eCheck Customer Profile

```

ics_applications=ics_pay_subscription_create
subscription_payment_method=check
bill_address1=1295 charleston rd
bill_city=Mountain View
bill_country=us
bill_state=ca
bill_zip=94042
card_type=001
currency=usd
customer_cc_expmo=01
customer_cc_expyr=20
customer_cc_number=4111111111111111
customer_email=sales@cybersource.com
customer_firstname=John
customer_lastname=Smith
customer_phone=1234567890
ecp_account_no=12345678
ecp_account_type=c
ecp_rdfi=112200439
ecp_sec_code=web
merchant_id=demomerchant
merchant_ref_number=TC54240-4
recurring_frequency=on-demand

```

Example 6 Reply: eCheck Customer Profile

```

ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54240-4
pay_subscription_create_rcode=1
pay_subscription_create_rflag=SOK
pay_subscription_create_rmsg=Request was processed successfully. pay_
subscription_create_subscription_id=3829672273012130706689
pay_subscription_create_time=2013-10-28T133333Z
request_id=3829672273312130706689

```

PINless

Example 7 Request: PINless Customer Profile

```
bill_address1=1295 charleston rd
bill_city=Mountain
View bill_country=us
bill_state=ca
bill_zip=94042
card_type=001
currency=usd
customer_cc_expmo=01
customer_cc_expyr=20
customer_cc_number=4111111111111111
customer_email=sales@cybersource.com
customer_firstname=John
customer_lastname=Smith
ics_applications=ics_pay_subscription_create
merchant_id=demomerchant
merchant_ref_number=TC54240-2
recurring_frequency=on-demand
subscription_payment_method=pinless debit
```

Example 8 Reply: PINless Customer Profile

```
ics_rcode=1
ics_rflag=SOK ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54240-2
pay_subscription_create_rcode=1
pay_subscription_create_rflag=SOK
pay_subscription_create_rmsg=Request was processed successfully.
pay_subscription_create_subscription_id=9990000092087479
pay_subscription_create_time=2013-10-28T133732Z
request_id=3829674669492130706689
```

Updating a Customer Profile

Updating Card Account Number

Example 9 Request: Updating a Card Account Number

```
merchant_id=demomerchant
merchant_ref_number=TC54240-1
customer_cc_number=4111111111111111
customer_cc_expmo=01
customer_cc_expyr=20
card_type=001
subscription_id=3829680248342130706689
ics_applications=ics_pay_subscription_update
```

Example 10 Reply: Updating a Card Account Number

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54314-10up
pay_subscription_update_owner_merchant_id=demomerchant
pay_subscription_update_rcode=1
pay_subscription_update_rflag=SOK
pay_subscription_update_rmsg=Request was processed successfully.
pay_subscription_update_subscription_id=3829680248342130706689
pay_subscription_update_time=2013-10-28T134651Z
request_id=3829680259022130706689
```

Removing Card Expiration Dates

Example 11 Request: Removing Card Expiration Dates

```
merchant_id=demomerchant
merchant_ref_number=TC54240-1
customer_cc_expmo=0
customer_cc_expyr=0
subscription_id=3829680248342130706689
ics_applications=ics_pay_subscription_update
```

Example 12 Reply: Removing Card Expiration Dates

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54314-10up
pay_subscription_update_owner_merchant_id=demomerchant
pay_subscription_update_rcode=1
pay_subscription_update_rflag=SOK
pay_subscription_update_rmsg=Request was processed successfully.
pay_subscription_update_subscription_id=3829680248342130706689
pay_subscription_update_time=2013-10-28T134651Z
request_id=3829680259022130706689
```

Updating an eCheck Account Number



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

Example 13 Request: Updating an eCheck Account Number

```
merchant_id=demomerchant
merchant_ref_number=123456789
ecp_account_no=41113456
ics_applications= ics_pay_subscription_update
subscription_payment_method=check
subscription_id=4889851572820170561911
```

Example 14 Reply: Updating an eCheck Account Number

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=123456789
pay_subscription_update_time=2017-03-08T150422Z
pay_subscription_update_subscription_id=4889851572820170561911
request_id=4889854608010170561911
pay_subscription_update_rmsg=Request was processed successfully.
pay_subscription_update_rcode=1
pay_subscription_update_rflag=SOK
request_token=Ahi jbwSTCRRdWmzZL3V3MUT7kTTz8A3NwyaSzejFcst+AOAAAnQpJ
```

Retrieving a Customer Profile

Example 15 Request: Retrieving a Customer Profile

```
merchant_id=demomerchant
merchant_ref_number=TC54313-5
subscription_id=3829684519002130706689
ics_applications=ics_pay_subscription_retrieve
```

Example 16 Reply: Retrieving a Customer Profile

```
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=TC54313-5
pay_subscription_retrieve_approval_required=false
pay_subscription_retrieve_automatic_renew=false
pay_subscription_retrieve_bill_address1=1295 Charleston Road
pay_subscription_retrieve_bill_city=Mountain View
pay_subscription_retrieve_bill_country=US
pay_subscription_retrieve_bill_payment=N
pay_subscription_retrieve_bill_state=CA
pay_subscription_retrieve_bill_zip=94042
pay_subscription_retrieve_currency=USD
pay_subscription_retrieve_customer_cc_number=4111111111111111
pay_subscription_retrieve_customer_email=sales@cybersource.com
pay_subscription_retrieve_customer_firstname=JOHN
pay_subscription_retrieve_customer_lastname=DOE
pay_subscription_retrieve_customer_phone=6504322000
pay_subscription_retrieve_frequency=on-demand
pay_subscription_retrieve_owner_merchant_id=demomerchant
pay_subscription_retrieve_payment_method=credit card
pay_subscription_retrieve_rcode=1
pay_subscription_retrieve_ship_to_address1=1295 Ship To Street
pay_subscription_retrieve_ship_to_address2=High Street
pay_subscription_retrieve_ship_to_city=San Francisco
pay_subscription_retrieve_ship_to_country=US
pay_subscription_retrieve_ship_to_firstname=JOHN
pay_subscription_retrieve_ship_to_lastname=DOE
pay_subscription_retrieve_ship_to_state=CA
pay_subscription_retrieve_ship_to_zip=94042-1234
pay_subscription_retrieve_status=CURRENT
pay_subscription_retrieve_subscription_id=3829684519002130706689
request_id=3829684529252130706689
```

Deleting a Customer Profile

Example 17 Request: Deleting a Customer Profile

```
merchant_id=demomerchant  
merchant_ref_number=TC54300-5  
subscription_id=3829688163002130706689  
ics_applications=ics_pay_subscription_delete
```

Example 18 Reply: Deleting a Customer Profile

```
ics_rcode=1  
ics_rflag=SOK  
ics_rmsg=Request was processed successfully.  
merchant_ref_number=TC54300-5  
pay_subscription_delete_rcode=1  
pay_subscription_delete_rflag=SOK  
pay_subscription_delete_rmsg=Request was processed successfully.  
pay_subscription_delete_subscription_id=3829688163002130706689  
request_id=3829688182452130706689
```
