Credit Card Services

Using the Simple Order API

February 2017

CyberSource®

the power of payment

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Contents

Recent Revisions to This Document

Release	Changes
February 2017	Barclays: added support for automatic partial authorization reversals. See "Automatic Partial Authorization Reversals," page 57.
	Chase Paymentech Solutions: updated the kind of support provided for the final authorization indicator:
	■ Added support for the **authIndicator** reply field. See "Reply Fields," page 310.
	■ Removed support for undefined authorizations and added support for unmarked authorizations. See "Final Authorization Indicator," page 121.
	FDC Nashville Global:
	■ Added support for the final authorization indicator. See "Final Authorization Indicator," page 121.
	■ Added support for multiple captures. See "Multiple Partial Captures," page 59.
	FDI Australia: added support for Visa Checkout. See the **wallet_type** field in Table 67, "Request Fields," on page 234 and "Values for the Wallet Type Field," page 420.
	Ingenico ePayments: added reply fields **ccAuthReply_reconciliationReferenceNumber, ccCaptureReply_reconciliationReferenceNumber, and ccCreditReply_ reconciliationReferenceNumber**. See "Reply Fields," page 310.
	OmniPay Direct: added support for merchant-initiated reversals. See "Merchant-Initiated Reversals and Voids," page 177.
	TSYS Acquiring Solutions:
	■ Added support for the final authorization indicator. See "Final Authorization Indicator," page 121.
	■ Added support for Visa Checkout. See the **wallet_type** field in Table 67, "Request Fields," on page 234 and "Values for the Wallet Type Field," page 420.

Release	Changes
January 2017	All processors: added "Numbered Elements," page 233.
	All processors that support merchant-initiated reversals and voids: updated Step 3 in "Merchant-Initiated Reversals and Voids," page 177.
	CyberSource through VisaNet:
	■ Added five new acquirers: ● Ahli United Bank in Bahrain ● Bangkok Bank Ltd. ● Citibank Hongkong and Macau ● United Overseas Bank (UOB) in Singapore and Vietnam ● United Overseas Bank (UOB) in Thailand
	■ Updated the following fields, which are supported only for Visa transactions: **issuer_additionalData**, **subsequentAuth**, **subsequentAuthFirst**, **subsequentAuthReason**, **subsequentAuthTransactionID**. See Table 67, "Request Fields," on page 234.
	OmniPay Direct: added support for Bank of America Merchant Services.
	Streamline: added support for multiple captures. See "Multiple Partial Captures," page 59.
December 2016	CyberSource through VisaNet:
	■ Added information about merchant-initiated transactions in several locations: ● "Authorization Information for Specific Processors," page 37. ● "Final Authorization Indicator," page 121. ● "Issuer-Funded Installment Payments on CyberSource through VisaNet," page 132. ● "Merchant-Funded Installment Payments on CyberSource through VisaNet," page 133. ● "Recurring Payments," page 202. ● "Split Shipments," page 214.
	■ Updated the description for the **ccAuthService_partialAuthIndicator** field. See Table 67, "Request Fields," on page 234.

Release	Changes
October 2016	American Express Direct:
	■ Added support for multiple captures. See "Multiple Partial Captures," page 59.
	■ Added support for installment payments in Asia Pacific and Australia. See "Installment Payments on American Express Direct," page 130.
	Comercio Latino: corrected capitalization in the field **personalID_number**. See "Request Fields," page 234.
	CyberSource through VisaNet:
	■ Changed the fields used for aggregator transactions with American Express. See "Aggregator Transactions with American Express," page 105.
	■ Added support for merchant-initiated transactions. See "Merchant-Initiated Transactions," page 181.
	■ Added support for Masterpass payments with Android Pay, Apple Pay, and Samsung Pay. See the **wallet_type** field in Table 67, "Request Fields," on page 234 and "Values for the Wallet Type Field," page 420.
	■ Added new possible value for reply field **ccAuthReply_merchantAdviceCode**. See Table 68, "Reply Fields," on page 310.
	■ Added reply field for transaction integrity. See **ccAuthReply_transactionIntegrity** in Table 68, "Reply Fields," on page 310.
	Elavon: added support for multiple captures. See "Multiple Partial Captures," page 59.
September 2016	All processors that support multiple captures: created new section: "Multiple Partial Captures," page 59.
	FDC Nashville Global: updated the maximum length for the **invoiceHeader_submerchantName** field. See Table 67, "Request Fields," on page 234.
August 2016	All processors that support Apple Pay: removed the Apple Pay information from this guide. See *Apple Pay Using the Simple Order API*.
	All processors that support Visa Checkout: **encryptedPayment_data** and **encryptedPayment_wrappedKey** are no longer supported for Visa Checkout authorizations See:
	■ "Creating an Authorization Request," page 34.
	■ "Visa Checkout Examples," page 348 (NVP).
	■ "Visa Checkout Examples," page 375 (XML).
	AIBMS: added support for zero amount authorizations. See "Zero Amount Authorizations," page 224.
	FDC Compass: added support for American Express and JCB for full authorization reversals. See Table 13, "Processors That Support Full Authorization Reversals," on page 41.

About This Guide

Audience

This guide is written for application developers who want to use the CyberSource Simple Order API to integrate credit card processing into their order management system.

Implementing the CyberSource credit card services requires software development skills. You must write code that uses the API request and reply fields to integrate the credit card services into your existing order management system.

Purpose

This guide describes tasks you must complete to integrate the credit card services into your existing order management system.

Conventions

The following special statements are used in this document:

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

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

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

The following text conventions are used in this document:

Table 1   Text Conventions

Convention	Meaning
bold	Field and service names in text; for example: Include the **ccAuthService_run** field.
italic	Titles of documents
`monospace`	- XML elements - Code examples - Values for API fields; for example: Set the **ccAuthService_run** field to `true`.

Related Documentation

- *Getting Started with CyberSource Advanced for the Simple Order API* describes how to get started using the Simple Order API. (PDF | HTML)

- The *Reporting Developer Guide* describes how to download reports. (PDF | HTML)

- The *Secure Acceptance Silent Order POST Development Guide* describes how to create a Secure Acceptance Silent Order POST profile. (PDF | HTML)

- The *Secure Acceptance Web/Mobile Configuration Guide* describes how to create a Secure Acceptance Web/Mobile profile. (PDF | HTML)

Introduction to the Credit Card Services

Cards and Payment Methods

The credit card services can be used to process the types of cards and payment methods in the following table.

Table 2   Cards and Payment Methods Processed with Credit Card Services

Card or Payment Method	Description
Credit cards	CyberSource can accept payments made with numerous types of credit cards, including Visa®, Mastercard®, American Express®, Discover®, Diners Club®, and JCB®.
Private label cards	Private label cards are credit cards that are issued by a private company and can be used only at the issuing company's stores. If you are interested in using CyberSource to process transactions for your company's private label card, contact your CyberSource account representative for information.
Debit cards and prepaid cards	Prepaid cards, Visa-branded debit cards, and Mastercard-branded debit cards can be processed with the credit card services. See Chapter 4, "Debit Cards and Prepaid Cards," on page 89.
Quasi-cash	A quasi-cash transaction is a cash-like transaction for the sale of items that are directly convertible to cash. See "Quasi-Cash," page 200.

Note   You can process payments with PINless debit cards if your business is in one of the acceptable merchant categories in which a card-not-present debit transaction is low risk. These categories include educational institutions, insurers, and utilities. Processing PINless debit cards is covered in *PINless Debit Card Services Using the Simple Order API.*

Discover Acquisitions and Alliances

Discover has acquired or entered into alliances with the payment card companies shown in the following table.

Table 3   Discover Acquisitions and Alliances

Card Type	Description
China UnionPay Alliance	In 2005, China UnionPay and Discover announced a strategic alliance whereby China UnionPay cards would be routed to the Discover Network. As a result of this alliance: ■ If you have been accepting Discover but not China UnionPay, you are now able to accept and process China UnionPay cards that have been reissued with Discover bank identification numbers (BINs). ■ If you have been accepting China UnionPay but not Discover, you are now able to accept Discover cards.
Diners Club Acquisition	In July 2008, Discover acquired Diners Club International whereby Diners Club cards would be routed to the Discover Network starting October 16, 2009. As a result of this acquisition: ■ If you have been accepting Discover but not Diners Club, you are now able to accept Diners Club cards. ■ If you have been accepting Diners Club but not Discover, you are now able to accept Discover cards.
JCB (US Domestic) Alliance	In December 2006, JCB and Discover announced a strategic alliance whereby JCB cards would be routed to the Discover Network in the U.S. and select U.S. Territories (Puerto Rico, Guam, U.S. Virgin Islands, Northern Mariana Islands) that authorize, process, and fund in USD. As a result of this alliance: ■ If you have been accepting Discover but not JCB, you are now able to accept JCB cards. ■ If you have been accepting JCB but not Discover, you are now able to accept Discover cards.

For some card types on some processors, the information in your CyberSource account must include processor-issued IDs for these transactions to be processed successfully. Call CyberSource Customer Support to update your account information.

As a result of these acquisitions and alliances, the following card types are processed on the Discover Network:

- China UnionPay

- Diners Club

- Discover

- JCB (US Domestic): For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.

> **Note**   Non-U.S. JCB transactions are still routed through JCB.

> **Note**   Your processor takes care of routing your transactions; you do not need to do any additional processing to route these card types to the Discover Network.

Mastercard New 2-Series Bank Identification Numbers

Mastercard is expanding the bank identification number (BIN) range by introducing BINs in the 222100-272099 range. Cards containing the 2-series BINs will be issued in 2017.

Effective October 2016, Mastercard requires processors, acquirers, issuers, and merchants to support the new 2-series BINs. Mastercard transactions on the 2-series primary account numbers (PANs) must be accepted, routed, and processed, and they must operate with the same rules that apply to the existing 5-series BINs.

Types of Transactions

Card-Present Transactions

When a customer uses a card that is physically present to make a purchase, the purchase is known as a *card-present transaction*. This type of transaction typically occurs in a retail environment. To process card-present transactions:

- Use the credit card services described in this guide.

- Provide card-present data as described in *Card-Present Processing Using the Simple Order API*.

Card-Not-Present Transactions

When a customer provides a card number but you do not have access to the physical card, the purchase is known as a *card-not-present transaction*. This type of transaction typically occurs over the Internet or through a call center. To process card-not-present transactions, use the credit card services described in this guide.

Card-not-present transactions pose an additional level of risk to your business because you cannot directly verify the customer's identification. CyberSource offers features, such as Address Verification System (AVS) and Card Verification Numbers (CVN), in the credit card services that can reduce that risk by checking the validity of the customer's information and notifying you when discrepancies occur. For descriptions of AVS and CVN, see Chapter 3, "Authorization Features," on page 72.

Transactions with Special Data

The credit card services can process these types of special data:

- Airline data: see *Airline Processing Using the Simple Order API*.
- Level II and Level III data: see*Level II and Level III Processing Using the Simple Order API*.
- Card-present data: see *Card-Present Processing Using the Simple Order API*.

International Transactions

Compliance

Accepting payments from a country other than your own requires that you observe the processing rules and practices of the payment systems in that country. The following table describes areas of compliance that have particular focus.

Table 4   Compliance for International Transactions

Area of Compliance	Description
Merchant account descriptor requirements	The merchant account descriptor is a fixed text field that is associated with a credit card account. The purpose of the descriptor is to communicate merchant information to the customer so that they can be reminded of the circumstances that triggered the payment. Merchant descriptors reduce the possibility of a chargeback. Accordingly, the merchant descriptor displayed on the customer's statement should be a close match to the name on your web site. It is not good practice to consolidate multiple web sites into a single credit card account and use a generic descriptor that more-or-less covers all offerings. For details about merchant descriptors, see "Merchant Descriptors," page 140.

Table 4 **Compliance for International Transactions (Continued)**

Area of Compliance	Description
Excessive chargebacks	You are responsible for maintaining good customer support, rapid problem resolution, a high level of customer satisfaction, and transaction management processes that minimize fraudulent transactions. All of these are required to prevent an excessive number of chargebacks. In the event that credit card chargebacks become excessive, CyberSource can require you to undertake business process changes to reduce chargebacks. If the chargebacks are not reduced to a satisfactory level, CyberSource can terminate the account.
	If Ingenico ePayments is your processor, see Appendix M, "Ingenico ePayments Credit Card Reversals," on page 400 for more information about chargebacks.
	Note Ingenico ePayments was previously called *Global Collect*.

Merchant Remittance Funding

In conjunction with processing international transactions, you can request that CyberSource convert transaction proceeds to a currency other than the currency in which the transaction took place for funding into an operating account. Currency conversion uses a foreign exchange rate to calculate how much the transaction currency is worth in terms of the funding currency. The foreign exchange rate might be explicitly stated as a rate or implicitly stated as a transaction amount, and a funded amount and can vary from day to day. The foreign exchange rate might also include a mark-up for the foreign exchange risk, sales commissions, and handling costs.

Banks and Associations

> **Note**
>
> In this document, the word *processor* can refer to a processor, acquirer, or acquiring processor depending on your location.

Acquiring (Merchant) Banks

An acquiring, or merchant, bank offers accounts to businesses that accept credit card payments. Before you can accept payments, you must have a merchant bank account from an acquiring bank. Your merchant bank account must be configured to process card-not-present or mail order/telephone order (MOTO) transactions.

> **Note**
>
> Each acquiring bank has connections to a limited number of payment processors. You must choose a payment processor that your acquiring bank supports. See "Payment Processors," page 26.

Expect to be charged the fees shown in the following table.

Table 5   Fees

Fee	Description
Discount rates	Your acquiring bank charges a fee and collects a percentage of every transaction. The combination of the fee and the percentage is called the discount rate. These charges can be *bundled* (combined into a single charge) or *unbundled* (charged separately) depending on your acquiring bank and other factors.
Interchange fees	Visa and Mastercard each have a base fee, called the interchange fee, for each type of transaction. Your acquiring bank and processor can explain how to minimize this fee.
Chargebacks	When customers dispute charges to their accounts, you can incur chargebacks. A chargeback occurs when a charge on a customer's account is reversed. Your merchant bank removes the money from your account and could charge you a fee for the chargeback.

You are responsible for maintaining:

■   Good customer support

■   Rapid problem resolution

■   A high level of customer satisfaction

■   Transaction management processes that minimize fraudulent transactions

The items in the preceding list are required to prevent an excessive number of credit card chargebacks. In the event that credit card chargebacks become excessive, CyberSource can require you to undertake business process changes to reduce chargebacks. If the chargebacks are not reduced to a satisfactory level, CyberSource can terminate your account.

If you receive a large number of chargebacks or if a large number of your transactions involve fraud, your acquiring bank might increase your discount rate or revoke your merchant bank account. Contact CyberSource for information about CyberSource products that can help prevent fraud.

Issuing (Consumer) Banks

An issuing, or consumer, bank provides credit cards to and underwrites lines of credit for consumers. The issuing bank provides monthly statements and collects payments. Issuing banks must follow the rules of the payment card companies to which they belong.

Payment Card Companies

Payment card companies manage communications between acquiring banks and issuing banks. They also develop industry standards, support their brands, and establish fees for acquiring banks.

Some payment card companies, such as Visa and Mastercard, are trade associations that do not issue cards. Instead, issuing banks are members of these associations and they issue cards under license from the associations.

Other card companies, such as Discover and American Express, act as the issuing banks for their own cards. Before you use CyberSource to process cards from these companies, you must sign agreements with the companies.

Services

The credit card services are:

- Authorization: see "Authorizing a Payment," page 31.

- Full authorization reversal: see "Reversing an Authorization," page 41.

- Capture: see "Capturing an Authorization," page 48.

- Credit: see "Crediting a Payment," page 63.

- Void: see "Voiding a Capture or Credit," page 69. This service is not restricted to the credit card services; it can also be used for other payment methods.

You can also request an authorization and capture together. See "Performing a Sale," page 62.

Order Tracking

See *Getting Started with CyberSource Advanced for the Simple Order API* for information about order tracking. This section provides the names of the API fields that are used for order tracking for the credit card services.

Request IDs

For all CyberSource services, the request ID is returned in the reply messages in **requestID**. The following table lists the fields for the request IDs in request messages.

Table 6   Fields for Request IDs in Request Messages

Service	Request ID Field
Authorization reversal	ccAuthReversalService_authRequestID
Capture	ccCaptureService_authRequestID
Credit	ccCreditService_captureRequestID
Void	voidService_voidRequestID

Reconciliation IDs

The following table lists the fields for the reconciliation IDs, which are returned in the reply messages.

Table 7   Fields for Reconciliation IDs

Service	Reconciliation ID Field	Notes
Authorization	ccAuthReply_reconciliationID	For authorization requests, the reconciliation ID is returned only for these processors: ■ American Express Direct ■ Asia, Middle East, and Africa Gateway ■ Atos ■ BML Direct ■ Chase Paymentech Solutions ■ Cielo ■ CyberSource through VisaNet ■ FDC Compass ■ FDC Nashville Global ■ Litle ■ Moneris
Authorization reversal	ccAuthReversalReply_ reconciliationID	For authorization reversal requests, the reconciliation ID is returned only for Moneris.
Capture	ccCaptureReply_reconciliationID	The reconciliation ID is returned for all capture requests for all processors except RBS WorldPay Atlanta. When you perform multiple partial captures for an authorization, each reply includes a different reconciliation ID for each capture request. To find out whether your processor supports multiple partial captures, see "Multiple Partial Captures," page 59.
Credit	ccCreditReply_reconciliationID	The reconciliation ID is returned for all credit requests for all processors.

Note On CyberSource through VisaNet, the reconciliation ID is mapped to the purchase identifier field which is sent to your acquirer.

> **Note**   CCS (CAFIS) does not support the reconciliation ID for any services.

> **Note**   JCN Gateway does not support the reconciliation ID for any services.

Payment Processors

> **Note**   In this document, the word *processor* can refer to processors, acquirers, or acquiring processors depending on your location.

Payment processors connect CyberSource servers with acquiring banks. Before you can accept payments, you must register with a payment processor. Your acquiring bank might require you to use a payment processor with which the bank has a business relationship.

CyberSource does not necessarily support all the features that are offered by each processor. This guide describes the payment processing features supported by CyberSource. The beginning of each feature description specifies which payment processors support the feature.

Your processor provides you with unique identification numbers for your account. You must provide these identification numbers to CyberSource Customer Support.

The following table lists the processors and corresponding card types that CyberSource supports for the credit card services.

> **Note**   Only the card types explicitly listed here are supported.

Table 8   Payment Processors and Card Types

Payment Processor	Supported Card Types & Notes
AIBMS	Visa, Mastercard, Maestro (International), Maestro (UK Domestic)
American Express Brighton	American Express
	Depending on the country in which your business is located, you might need to get special permission from American Express before you can process transactions with American Express Brighton. For more information, contact American Express.
American Express Direct	American Express
Asia, Middle East, and Africa Gateway	Visa, Mastercard, American Express, Diners Club, JCB
Atos	Visa, Mastercard, Diners Club, JCB, Carte Bleue, Maestro (UK Domestic)
Barclays	Visa, Mastercard, JCB, Maestro (International), Maestro (UK Domestic)
	If you support Maestro (UK Domestic), you must also support Maestro (International), and you must support Mastercard SecureCode for both card types.
	GBP currency only for JCB and Maestro (UK Domestic).
CCS (CAFIS)	Visa, Mastercard, American Express, Diners Club, JCB, NICOS house card
Chase Paymentech Solutions	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Carte Blanche, Maestro (International)
Cielo	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Maestro (International), Elo, Aura, Visa Electron
	The Visa Electron card type is processed the same way that the Visa debit card is processed. Use card type value `001` (Visa) for Visa Electron.
Citibank India	For details about the Citibank India processor, contact your CyberSource sales representative.

Table 8   Payment Processors and Card Types (Continued)

Payment Processor	Supported Card Types & Notes
Comercio Latino	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard
	Note For Hipercards, Comercio Latino supports only 16-digit and 19-digit card numbers.
	Comercio Latino is the upgraded version of CyberSource Latin American Processing.
	If Rede is your acquirer, you must inform Comercio Latino of your Rede portal username and password.
	Important If Banorte is your acquirer, the currency that is stored in the Banorte merchant account database overrides the currency included in the transaction request. The supported currencies are MXN (Mexican peso) and USD (United States dollar).
CyberSource Latin American Processing	Not all card types are supported in all Latin American countries. Contact CyberSource Customer Support for details.
	For the current processing connection to Latin America, use Comercio Latino.
	For some countries, you are required to submit the authorization request and the capture request together in the same message.
	Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
CyberSource through VisaNet	See Appendix I, "CyberSource through VisaNet Acquirers," on page 390 for the list of acquirers that are supported for CyberSource through VisaNet and the card types supported for each acquirer.
	The Visa Electron card type is processed the same way that the Visa debit card is processed. Use card type value `001` (Visa) for Visa Electron.
Elavon	Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)
FDC Compass	Visa, Mastercard, American Express, Discover, Diners Club, JCB
FDC Germany	Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
FDC Nashville Global	Visa, Mastercard, American Express, Discover, Diners Club, JCB
FDI Australia	Visa, Mastercard, American Express, Diners Club, JCB

Table 8   Payment Processors and Card Types (Continued)

Payment Processor	Supported Card Types & Notes
FDMS Nashville	Visa, Mastercard, American Express, Discover, Diners Club, Carte Blanche, JCB
FDMS South	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Carte Blanche
	Important In 2017, FDMS South will quit accepting authorization requests. If FDMS South is your processor, you need to either update or migrate your account depending on your settlement currency.
	If you settle transactions in CAD, you must do the following:
	■ Contact CyberSource Customer Support to have your CyberSource account configured to send authorization requests to a third party who will forward the requests to FDMS South on your behalf.
	■ Contact First Data to have your First Data account updated.
	If you settle transactions in USD, CyberSource recommends that you change your processor to FDC Nashville Global, FDMS Nashville, or FDC Compass.
GPN GPN is the CyberSource name for Global Payments, Inc.'s East processing platform.	Visa, Mastercard, American Express, Discover, Diners Club, JCB
HBoS	Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
HSBC HSBC is the CyberSource name for HSBC U.K.	Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
Ingenico ePayments Ingenico ePayments was previously called *Global Collect*.	Visa, Mastercard, American Express, JCB, Maestro (UK Domestic), Delta, Visa Electron, Dankort, Carte Bleue, Carta Si, Eurocard
JCN Gateway	Visa, Mastercard, American Express, Diners Club, JCB, NICOS house card, ORICO house card
Litle	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Lloyds-OmniPay	Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
LloydsTSB Cardnet	Visa, Mastercard, Maestro (UK Domestic)
Lynk	Visa, Mastercard, American Express, Discover, Diners Club, Carte Blanche, JCB
Moneris	Visa, Mastercard, American Express, Discover

Table 8   Payment Processors and Card Types (Continued)

Payment Processor	Supported Card Types & Notes
OmniPay Direct	Supported acquirers: ■ Bank of America Merchant Services: Visa, Mastercard, Maestro (UK Domestic), Maestro (International) ■ First Data Merchant Solutions (Europe): Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International) ■ Global Payments International Acquiring: Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
OmniPay-Ireland OmniPay-Ireland is the CyberSource name for HSBC International.	Visa, Mastercard
PayEase China Processing	Visa, Mastercard, American Express, JCB The information in this guide does not apply to PayEase China Processing. All information required for PayEase China Processing is in the *China Processing Implementation Guide*.
RBS WorldPay Atlanta	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Streamline	Visa, Mastercard, JCB, Carte Bleue, Dankort, Maestro (International), Maestro (UK Domestic) For Maestro (International), SecureCode processing is required.
TSYS Acquiring Solutions	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Carte Blanche
UATP	UATP

Credit Card Processing

Authorizing a Payment

CyberSource supports authorizations for all processors.

Online Authorizations

Online authorization means that when you submit an order using a credit card, you receive an immediate confirmation about the availability of the funds. If the funds are available, the issuing bank reduces your customer's open to buy, which is the amount of credit available on the card. Most of the common credit cards are processed online. For online authorizations, you typically start the process of order fulfillment soon after you receive confirmation of the order.

Online authorizations expire with the issuing bank after a specific length of time if they have not been captured and settled. Most authorizations expire within five to seven days. The issuing bank sets the length of time.

> **Note**
> CyberSource is not informed by the issuing bank when an authorization expires. By default, the authorization remains in the CyberSource system for 60 days after the authorization date, even after it expires with the issuing bank.

When an authorization expires with the issuing bank, your bank or processor might require you to resubmit an authorization request and include a request for capture in the same message.

The following figure shows the steps that occur when you request an online credit card authorization.

Figure 1   Processing an Online Authorization
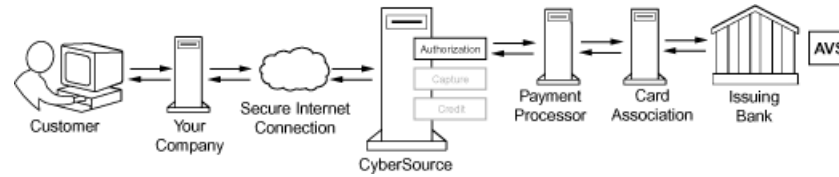
1   The customer places an order and provides the credit card number, the card expiration date, and additional information about the card.

2   You send a request for authorization over a secure Internet connection. When the customer buys a digitally delivered product or service, you can request both the authorization and the capture at the same time. When the customer buys a physically fulfilled product, do not request the capture until you ship the product.

3   CyberSource validates the order information then contacts your payment processor and requests authorization.

4   The processor sends the transaction to the payment card company, which routes it to the issuing bank for the customer's credit card. Some card companies, including Discover and American Express, act as their own issuing banks.

5   The issuing bank approves or declines the request.

Depending on the processor and card type, the issuing bank can use AVS to confirm the billing address and CVN to verify that the customer has possession of the card. See Chapter 3, "Authorization Features," on page 72.

For debit cards and prepaid cards, the issuing bank can approve a partial amount if the balance on the card is less than the requested authorization amount and if the transaction is enabled for partial authorization. For details about partial authorizations and for a list of the processors and card types supported for partial authorizations, see "Partial Authorizations," page 89.

Note	For a limited number of processors and card types, partial authorizations and balance responses are supported for credit cards in addition to debit cards and prepaid cards. See "Partial Authorizations," page 89, and "Balance Responses," page 95.

6   CyberSource runs its own tests then tells you whether the authorization succeeded.

Offline Authorizations

Offline authorization means that when you submit an order using a credit card, you do not know whether the funds are available until you capture the order and receive confirmation of payment. You typically do not ship the goods until you receive this payment confirmation. For offline credit cards, it usually takes five days longer to receive payment confirmation than for online cards.

Automatic Captures

Processors:

- Asia, Middle East, and Africa Gateway
- Cielo
- Comercio Latino
- CyberSource Latin American Processing

An *automatic capture* is an authorization that results in an immediate capture if the authorization is approved. A *bundled* request means that an authorization and a capture are requested at the same time.

To enable automatic captures for your account, contact CyberSource Customer Support.

Automatic captures are requested two ways:

- If automatic captures are enabled for your account, submit a bundled request.

- If automatic captures are not enabled for your account, submit a bundled request and set **ccAuthService_authType** to AUTOCAPTURE .

If your account is configured to enable automatic captures but you want to process a standard capture for a specific transaction, submit a bundled or standard authorization request and set **ccAuthService_authType** to STANDARDCAPTURE. The authorization is processed immediately, and if it is successful, the capture is processed during the next settlement submission cycle.

Authorization reversal and void services are not supported for automatic capture transactions.

Table 9   Automatic Capture Information for Specific Processors

Payment Processor	Automatic Capture Information
Asia, Middle East, and Africa Gateway	Certain acquirers that are connected to the Asia, Middle East, and Africa Gateway require automatic captures. Contact your CyberSource Customer Support representative to find out whether your acquirer uses standard or automatic capture processing.

Table 9   Automatic Capture Information for Specific Processors (Continued)

Payment Processor	Automatic Capture Information
Cielo	By default, your CyberSource account is configured to support standard capture processing. When you contact Customer Support to set up your account, you can request that the default type of capture be automatic capture instead of standard capture.
	All Aura Card transactions must be automatic captures.
Comercio Latino	When you contact Customer Support to set up your account, you can request that the default type of capture be automatic capture instead of standard capture.
CyberSource Latin American Processing	With CyberSource Latin American Processing, for some countries you are required to submit an automatic capture. For other countries, you can submit standard authorization and capture requests. Contact CyberSource Customer Support for each country's requirements.
	Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.

Creating an Authorization Request

Step 1   Do not include any of these services in the request:

- Full authorization reversal (**ccAuthReversalService**)

- Credit (**ccCreditService**)

- Services for other payment methods, such as electronic checks, PayPal, bank transfers, and direct debits

- Risk update (**riskUpdateService**)

Step 2   Include the required fields in the request:

- If you are using Android Pay, see *Android Pay Using the Simple Order API.*

- If you are using Apple Pay, see *Apple Pay Using the Simple Order API.*

■ If you are using Visa Checkout, see Table 10 for the required fields:

Table 10   Required Fields for Authorizations with Visa Checkout

Field	Notes
ccAuthService_run	Set to `true`.
merchantID	
merchantReferenceCode	
paymentSolution	Set to `visacheckout`.
purchaseTotals_currency	
purchaseTotals_ grandTotalAmount	Either **purchaseTotals_grandTotalAmount** or **item_#_ unitPrice** must be included in the request.
vc_orderID	
wallet_type	Required only on CyberSource through VisaNet.

See Appendix A, "API Fields," on page 232 for:

● Detailed descriptions of these required request fields

● Optional request fields

● Reply fields

■ Otherwise, see Table 11 for the required fields:

Table 11   Required Fields for Authorizations without Visa Checkout

Field	Notes
billTo_city[1]	
billTo_country[1]	
billTo_email[1]	
billTo_firstName[1]	
billTo_lastName[1]	
billTo_postalCode[1]	Required only for transactions in the U.S. and Canada.
billTo_state[1]	Required only for transactions in the U.S. and Canada.
billTo_street1[1]	
card_accountNumber	
card_cardType	Required for certain card types. CyberSource strongly recommends that you send the card type even if it is optional for your processor. Omitting the card type can cause the transaction to be processed with the wrong card type.
card_expirationMonth[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 75.
Important It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 11 Required Fields for Authorizations (Continued) without Visa Checkout (Continued)

Field	Notes
card_expirationYear[1]	
ccAuthService_run	Set to `true`.
merchantID	
merchantReferenceCode	
purchaseTotals_currency	
purchaseTotals_ grandTotalAmount	Either **purchaseTotals_grandTotalAmount** or **item_#_ unitPrice** must be included in the request.

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 75.
Important It is your responsibility to determine whether a field is required for the transaction you are requesting.

See Appendix A, "API Fields," on page 232 for:

- Detailed descriptions of these required request fields
- Optional request fields
- Reply fields

Step 3 If needed, modify the request to accommodate additional information for your processor. See "Authorization Information for Specific Processors," page 37.

Step 4 Include authorization features in the request.

There are several authorization features that can be performed automatically depending on the information included in your request. These features are described in Chapter 3, "Authorization Features," on page 72.

Step 5 Include optional features in the request.

There are several optional features that you can include in your request. These features are described in Chapter 5, "Optional Features," on page 100.

Authorization Information for Specific Processors

The following table provides additional information about authorizations for specific processors.

Table 12   Authorization Information for Specific Processors

Payment Processor	Authorization Information
American Express Direct	For USD, American Express Direct limits authorization and capture amounts to 9,999,999.00. For other currencies, the maximum amount depends on the currency. Contact American Express for the maximum amounts for the currencies that you are using. Regardless of exponent or currency, the maximum number of digits for the amount value is 12 digits.
Asia, Middle East, and Africa Gateway	The Asia, Middle East, and Africa Gateway limits authorization and capture amounts to four bytes; therefore, the maximum amount is 2147483647. Certain acquirers that are connected to the Asia, Middle East, and Africa Gateway require that an authorization be automatically captured. See "Automatic Captures," page 33.
Atos	Atos limits authorization, capture, and credit amounts to 12 digits; therefore, the maximum amount is 999999999999. **Important** Authorizations time out after 5 days, 20 hours, and 30 minutes. For Maestro (UK Domestic), when you submit a capture request after 5 days, 20 hours, and 30 minutes, you must reauthorize first. For all other card types, when you submit a capture request after 5 days, 20 hours, and 30 minutes, CyberSource tries to obtain a fresh authorization as described in "Authorization Refresh," page 56.
Barclays	CyberSource rounds the amount to the correct number of decimal places for the currency. Barclays supports enhanced response codes in authorization reply messages. Enhanced response codes provide detailed information about declined transactions. Contact Barclays customer support to have this capability enabled for your Barclays account.

Table 12   Authorization Information for Specific Processors (Continued)

Payment Processor	Authorization Information

Cielo	***Automatic Capture and Standard Capture***
	Cielo supports standard captures and automatic captures.
	
	■ By default, your CyberSource account is configured to support standard capture processing.
	
	■ For an Aura Card transaction, you must set the authorization type to AUTOCAPTURE. See "Automatic Captures," page 33.
	
	Combo Cards
	Some card types support two payment methods: they can be processed as credit cards and debit cards. On Cielo:
	
	■ The default payment method is credit card.
	
	■ You can override the default payment method by including the **ccAuthService_overridePaymentMethod** field, a flag that indicates whether the card is being used as a credit card or debit card, in the authorization request.
	
	Debit Cards
	For debit cards on Cielo:
	
	■ You must request an automatic capture. See "Automatic Captures," page 33.
	
	■ You must include payer authentication data in the request for cards that support it on the Cielo gateway. For a description of payer authentication, see "Payer Authentication," page 184.
	
	■ Some card types must always be processed as debit cards and must be identified with the override payment method field. Cards that must always be processed as debit cards include:
	   ● Visa Electron
	   ● Maestro (International)

Table 12   Authorization Information for Specific Processors (Continued)

Payment Processor	Authorization Information
Comercio Latino	Regardless of exponent or currency, the maximum number of digits for the amount value is 19 digits. This maximum amount may be subject to further restrictions based on the acquirer requirements. ***Debit Cards*** For debit cards on Comercio Latino: ■ You must request an automatic capture. See "Automatic Captures," page 33. ■ You must include payer authentication data in the request for cards that support it on the Comercio Latino gateway. For a description of payer authentication, see "Payer Authentication," page 184. ■ Some card types must always be processed as debit cards and must be identified with the **ccAuthService_ overridePaymentMethod** field. Cards that must always be processed as debit cards include: ● Visa Electron ● Maestro (International)
CyberSource Latin American Processing	With CyberSource Latin American Processing, for some countries you must submit an automatic capture. See "Automatic Captures," page 33. For other countries, you can submit standard authorization and capture requests. Contact CyberSource Customer Support for each country's requirements. For transactions in Brazil, you must request the follow-on capture within five days of the authorization request. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
CyberSource through VisaNet	CyberSource through VisaNet limits authorization and capture amounts to 12 digits; therefore, the maximum amount is 999999999999. When you perform a reauthorization or an incremental authorization, your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

Table 12   Authorization Information for Specific Processors (Continued)

Payment Processor	Authorization Information
FDMS South	FDMS South no longer requires you to include all AVS data fields in your requests. The only required AVS data fields are the country code and postal code. All other AVS data fields are optional even though they are marked as required in Table 67, "Request Fields," on page 234. However, if you omit AVS data fields that were previously required, you might experience an increase in the number of declined transactions and chargebacks. For additional information, contact your processor. For the Indonesian rupiah (IDR) and Chilean peso (CLP) currencies only: ■ Rounding occurs, which can cause a minor discrepancy that consists of a maximum of one currency unit between the amount you requested and the amount that is authorized. ■ When a transaction is enabled for partial authorization, you must ensure that the requested amount does not include any digits to the right of the decimal separator. For a description of partial authorizations, see "Partial Authorizations," page 89.
GPN	GPN limits the authorization, capture, and credit amounts to 10 digits.
Ingenico ePayments Ingenico ePayments was previously called *Global Collect*.	For Carte Bleue, the authorization and capture amount must be 0.99 EUR or more.
Litle	Litle limits authorization and capture amounts to eight digits; therefore, the maximum amount is 99999999.
Moneris	Moneris limits authorization and capture amounts to nine digits; therefore, the maximum amount is 9999999.99.
RBS WorldPay Atlanta	RBS WorldPay Atlanta limits the authorization, capture, and credit amounts to the equivalent of 999,999.99 USD. Depending on the value you send, the decimal is either truncated or appended. For example, if you send 1.123 the decimal is truncated to 1.12. If you send 123 it is converted to 123.00.
Streamline	Streamline limits authorization and capture amounts to 11 digits; therefore, the maximum amount is 999999999.99. Streamline supports enhanced response codes in authorization reply messages. Enhanced response codes provide detailed information about declined transactions. Contact Streamline customer support to have this capability enabled for your Streamline account.
TSYS Acquiring Solutions	TSYS Acquiring Solutions limits authorization and capture amounts to the equivalent of 99,999.99 USD. To process an amount greater than this, contact TSYS Acquiring Solutions.

Reversing an Authorization

The full authorization reversal service releases the hold that the authorization placed on the customer's credit card funds. Use this service to reverse an unnecessary or undesired authorization.

> **Note** Each issuing bank has its own rules for deciding whether a full authorization reversal succeeds or fails. If your reversal fails, contact the issuing bank to find out whether it is possible to reverse the authorization by alternate means.

If your processor supports authorization reversal after void (ARAV), you can reverse an authorization after you void the associated capture. See "Authorization Reversal after Void (ARAV)," page 47. If your processor does not support ARAV, you can use the full authorization reversal service only for an authorization that has not been captured and settled.

Supported Processors and Card Types

The following table lists the processors that are supported for full authorization reversals. For processors that support debit cards and prepaid cards, the full authorization reversal service works for debit cards and prepaid cards in addition to credit cards.

Table 13   Processors That Support Full Authorization Reversals

Processor	Card Types and Notes
AIBMS	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
American Express Direct	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact American Express for more information. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
Barclays	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. CyberSource supports enhanced authorization reversals on this processor; therefore, CyberSource sends the processor extra data in the authorization reversal request. You do not need to process or monitor the extra data. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.

Table 13   Processors That Support Full Authorization Reversals (Continued)

Processor	Card Types and Notes
CCS (CAFIS)	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Diners Club, JCB. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Chase Paymentech Solutions	Card types supported for full authorization reversals: Visa, Mastercard, Maestro (International), Discover, and Diners Club. Time limit: a full authorization reversal must occur within three days of the authorization. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Cielo	Card types supported for full authorization reversals: Visa, Mastercard, American Express.
Comercio Latino	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard. Time limit: a full authorization reversal must occur by 23:59 BRT (UTC-3) on the same day as the authorization.
CyberSource through VisaNet	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Diners Club, JCB, Discover. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
Elavon	Card types supported for full authorization reversals: Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International). Time limit: a full authorization reversal must occur within 24 hours of the authorization.
FDC Compass	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Discover, Diners Club, and JCB. Time limit: a full authorization reversal must occur within three days of the authorization. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
FDC Germany	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.

Table 13   Processors That Support Full Authorization Reversals (Continued)

Processor	Card Types and Notes
FDC Nashville Global	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Discover, Diners Club, and JCB (US Domestic). For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands. For Discover, Diners Club, and JCB (US Domestic), full authorization reversals are supported for USD transactions only. There are no currency restrictions for full authorization reversals for Visa, Mastercard, and American Express. **Important Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
FDMS Nashville	Card types supported for full authorization reversals: Visa, Mastercard, Discover, Diners Club, and JCB (US Domestic). For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.

FDMS South	Card types supported for full authorization reversals: Visa, Mastercard, Discover, and JCB (US Domestic).
	
	For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
	
	Full authorization reversals:
	
	■ Are supported only for transactions that do not go through a currency conversion.
	
	■ Are supported for the following types of merchants and currencies:
	  ● Merchants located in the U.S. who authorize, settle, and fund in U.S. dollars.
	  ● Merchants located in Canada who authorize, settle, and fund in Canadian dollars.
	  ● Merchants located in Latin America or the Caribbean who authorize, settle, and fund in U.S. dollars.
	  ● Merchants located in Europe who authorize, settle, and fund in the currency for the country in which the merchant is located.
	
	Important ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.

Table 13   Processors That Support Full Authorization Reversals (Continued)

Processor	Card Types and Notes
GPN	Card types supported for full authorization reversals: Visa, Mastercard, Discover, Diners Club, and JCB. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
HBoS	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
HSBC HSBC is the CyberSource name for HSBC U.K.	Card types supported for full authorization reversals: Visa, Mastercard, Maestro (UK Domestic), Maestro (International). **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
JCN Gateway	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Diners Club, JCB, NICOS house card, ORICO house card. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Litle	Card types supported for full authorization reversals: Visa, Mastercard, Discover, Diners Club, and JCB. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Lloyds-OmniPay	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
LloydsTSB Cardnet	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Moneris	Card types supported for full authorization reversals: Visa, Mastercard, American Express, and Discover.

Table 13   Processors That Support Full Authorization Reversals (Continued)

Processor	Card Types and Notes
OmniPay Direct	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. Card types supported for full authorization reversals on Bank of America Merchant Services: Visa, Mastercard, Maestro (UK Domestic), and Maestro (International). Card types supported for full authorization reversals on First Data Merchant Solutions (Europe): Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), and Maestro (International). Card types supported for full authorization reversals on Global Payments International Acquiring: Visa, Mastercard, Maestro (UK Domestic), and Maestro (International). **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
RBS WorldPay Atlanta	Card types supported for full authorization reversals: Visa, Mastercard, American Express, and Discover.
Streamline	Requirement: you are responsible for complying with the processor's specific requirements for full authorization reversals. Contact the processor for more information. CyberSource supports enhanced authorization reversals on this processor; therefore, CyberSource sends the processor extra data in the authorization reversal request. You do not need to process or monitor the extra data. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
TSYS Acquiring Solutions	Card types supported for full authorization reversals: Visa, Mastercard, American Express, Discover, Diners Club, and JCB. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.

Creating a Full Authorization Reversal Request

A full authorization reversal is a follow-on transaction that uses the request ID returned from a previous authorization. The request ID links the full authorization reversal to the authorization. CyberSource uses the request ID to look up the customer's billing and account information from the original authorization, so you are not required to include those fields in your full authorization reversal request.

Note	For American Express aggregator transactions on CtV, CyberSource retrieves the aggregator information for the authorization that is being reversed.

For information about requesting a follow-on service, see *Getting Started with CyberSource Advanced for the Simple Order API*.

To create a full authorization reversal request:

Step 1   Do not include any other CyberSource services in the request.

Step 2   Include the required fields in the request:

Table 14   Required Fields for Full Authorization Reversals

Field	Notes
ccAuthReversalService_authRequestID	Set to the request ID that was included in the authorization reply message.
ccAuthReversalService_run	Set to `true`.
merchantID	
merchantReferenceCode	
paymentSolution	Include this field only if you are using Visa Checkout.
purchaseTotals_currency	
purchaseTotals_grandTotalAmount	Either **purchaseTotals_grandTotalAmount** or **item_#_unitPrice** must be included in the request.
vc_orderID	Include this field only if you are using Visa Checkout.

See Appendix A, "API Fields," on page 232 for:

- Detailed descriptions of these required request fields
- Optional request fields
- Reply fields

Step 3 Make sure the amount of the reversal is the same as the amount that was authorized:

- You cannot partially reverse an authorization; you can reverse an authorization only for its full amount.

- When you use a debit card or prepaid card and only a partial amount was approved, the amount of the reversal must be the amount that was authorized, not the amount that was requested.

Authorization Reversal after Void (ARAV)

Processors:
- American Express Direct
- Barclays
- Chase Paymentech Solutions
- Comercio Latino
- CyberSource through VisaNet
- FDC Compass
- FDC Germany
- FDC Nashville Global
- FDMS Nashville
- FDMS South
- GPN
- HBoS
- HSBC: HSBC is the CyberSource name for HSBC U.K.
- Litle
- Lloyds-OmniPay
- LloydsTSB Cardnet
- OmniPay Direct. The supported acquirers are:
  - Bank of America Merchant Services
  - First Data Merchant Solutions (Europe)
  - Global Payments International Acquiring
- Streamline
- TSYS Acquiring Solutions

This feature enables you to reverse an authorization after you void the associated capture.

> ⚠
> **Important**
>
> This functionality enables you to meet the Visa mandate requirements to reverse unused authorizations, and it benefits the cardholder by releasing the hold on unused credit card funds.

To reverse an authorization after a void:

Step 1 Void a capture. See "Voiding a Capture or Credit," page 69.

Step 2 Reverse the authorization associated with the capture. See "Reversing an Authorization," page 41.

> 📝
> **Note**
>
> You might need to perform additional steps if you performed multiple partial captures for the authorization. To find out whether your processor supports multiple partial captures, see "Multiple Partial Captures," page 59. For information about multiple captures and ARAV, see "Multiple Partial Captures and Authorization Reversal after Void," page 61.

Automatic ARAV

Processor:

- CyberSource through VisaNet

Normally, you must send an authorization reversal request after you void the associated capture. With automatic ARAV, CyberSource automatically reverses the authorization after you void the associated capture. To enable automatic ARAV, contact CyberSource Customer Support to have your account configured for this feature.

Capturing an Authorization

CyberSource supports captures for all processors.

When you are ready to fulfill a customer's order and transfer funds from the customer's bank to your bank, capture the authorization for that order.

If you can fulfill only part of a customer's order, do not capture the full amount of the authorization. Capture only the cost of the items that you ship. When you ship the remaining items, request a new authorization, and then capture the new authorization.

Captures

Unlike authorizations, a capture does not happen in real time. All of the capture requests for a day are placed in a batch file and sent to the processor. In most cases, the batch is settled at night. It usually takes two to four days for your acquiring bank to deposit funds in your merchant bank account.

The following figure shows the steps that occur when you request a capture or credit.

Figure 2   Processing a Capture or Credit
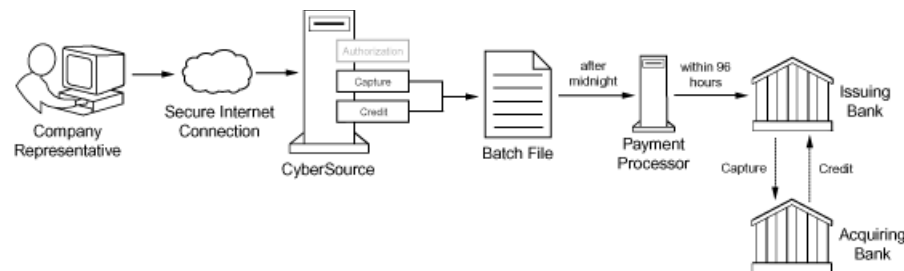
1   You send a request for capture or credit over a secure Internet connection.

2   CyberSource validates the order information then stores the capture or credit request in a batch file.

3   After midnight, CyberSource sends the batch file to your payment processor.

4   The processor settles the capture or credit request and transfers funds to the appropriate bank account.

> **Note**
>
> The processor does not notify CyberSource when a transaction is declined. To ensure that all captures and credits are processed, reconcile your system's reports with the reports from your processor. See *Getting Started with CyberSource Advanced for the Simple Order API* for information about reconciliation.

Due to the potential delay between authorization and capture, the authorization might expire with the issuing bank before you request capture. Most authorizations expire within five to seven days. If an authorization expires with the issuing bank before you request the capture, your bank or processor might require you to resubmit an authorization request and include a request for capture in the same message.

> **Note**
>
> CyberSource is not informed by the issuing bank when an authorization expires. By default, the authorization remains in the CyberSource system for 60 days after the authorization date, even after it expires with the issuing bank.

Creating a Capture Request

A capture is a follow-on transaction that uses the request ID returned from a previous authorization. The request ID links the capture to the authorization. CyberSource uses the request ID to look up the customer's billing and account information from the original authorization, so you are not required to include those fields in your capture request.

For information about requesting a follow-on service, see *Getting Started with CyberSource Advanced for the Simple Order API*.

Note	For Atos, your request for a capture must also include the request token returned from a previous authorization in addition to the request ID. Like the request ID, the request token links the capture to the authorization. Send the request token in the **orderRequestToken** field.

To create a capture request:

Step 1 Do not include any of these services in the request:

■ Full authorization reversal (**ccAuthReversalService**)

■ Credit (**ccCreditService**)

■ Services for other payment methods, such as electronic checks, PayPal, bank transfers, and direct debits

■ Risk update (**riskUpdateService**)

■ Advanced fraud screen (**afsService**)

Step 2 Include the required fields in the request:

Table 15 Required Fields for Captures

Field	Notes
ccCaptureService_run	Set to `true`.
ccCaptureService_ authRequestID	Set to the request ID that was included in the authorization reply message. Optional when **ccAuthService** and **ccCaptureService** are in the same request.
merchantID	
merchantReferenceCode	
orderRequestToken	Required only for Atos.
paymentSolution	Include this field only if you are using Visa Checkout.
purchaseTotals_currency	

Table 15   Required Fields for Captures (Continued)

Field	Notes
purchaseTotals_grandTotalAmount	Either **purchaseTotals_grandTotalAmount** or **item_#_unitPrice** must be included in the request.
vc_orderID	Include this field only if you are using Visa Checkout.

See Appendix A, "API Fields," on page 232 for:

- Detailed descriptions of these required request fields

- Optional request fields

- Reply fields

Step 3   If needed, modify the request to accommodate additional information for your processor. See Table 16, "Capture Information for Specific Processors," on page 52.

> For Carte Bleue cards, your capture request cannot be for less than 0.99 EUR.
>
> **Note**

Step 4   Include optional features in the request.

There are several optional features that you can include in your request. These features are described in Chapter 5, "Optional Features," on page 100.

Capture Information for Specific Processors

The following table provides additional information about captures for some processors.

Table 16   Capture Information for Specific Processors

Payment Processor	Capture Information
AIBMS	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
American Express Direct	For USD, American Express Direct limits authorization and capture amounts to 9,999,999.00. For other currencies, the maximum amount depends on the currency. Contact American Express for the maximum amounts for the currencies that you are using. Regardless of exponent or currency, the maximum number of digits for the amount value is 12 digits.
	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Asia, Middle East, and Africa Gateway	The Asia, Middle East, and Africa Gateway limits authorization and capture amounts to four bytes, which is 2147483647.
	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Automatic capture requirement: certain acquirers that are connected to the Asia, Middle East, and Africa Gateway require automatic captures. See "Automatic Captures," page 33. Contact your CyberSource Customer Support representative to find out whether your acquirer uses standard or automatic captures.
Atos	Atos limits authorization, capture, and credit amounts to 12 digits; therefore, the maximum amount is 999999999999.
	Important Authorizations time out after 5 days, 20 hours, and 30 minutes. For Maestro (UK Domestic), when you submit a capture request after 5 days, 20 hours, and 30 minutes, you must reauthorize first. For all other card types, when you submit a capture request after 5 days, 20 hours, and 30 minutes, CyberSource tries to obtain a fresh authorization as described in "Authorization Refresh," page 56.
Barclays	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Special request fields for multiple partial captures are required. See "Special Request Fields for Multiple Partial Captures," page 60.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
CCS (CAFIS)	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.

Table 16   Capture Information for Specific Processors (Continued)

Payment Processor	Capture Information
Chase Paymentech Solutions	Multiple partial captures are supported. See "Multiple Partial Captures," page 59. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Cielo	Cielo supports standard captures and automatic captures. ■ By default, your CyberSource account is configured to support standard capture processing. ■ For an Aura Card transaction, you must set the authorization type to AUTOCAPTURE. See "Automatic Captures," page 33.
Comercio Latino	Comercio Latino supports standard captures and automatic captures. See "Automatic Captures," page 33.
CyberSource Latin American Processing	Automatic capture requirements: payment card company rules generally specify that you must not capture a payment until you have shipped the products to the customer. However, with CyberSource Latin American Processing, for some countries you are required to submit an automatic capture. See "Automatic Captures," page 33. For other countries, you can submit standard authorization and capture requests. Contact CyberSource Customer Support for each country's requirements. For transactions in Brazil: ■ You must request the follow-on capture within five days of the authorization request. ■ The capture amount can be less than the authorization amount. ■ You can request only one capture per authorization. With CyberSource Latin American Processing, it takes 31 days for the funds to be deposited in your merchant bank account. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
CyberSource through VisaNet	CyberSource through VisaNet limits authorization and capture amounts to 12 digits; therefore, the maximum amount is 999999999999. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
Elavon	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.

Table 16   Capture Information for Specific Processors (Continued)

Payment Processor	Capture Information
FDC Compass	Multiple partial captures are supported. See "Multiple Partial Captures," page 59. Special request fields for multiple partial captures are recommended. See "Special Request Fields for Multiple Partial Captures," page 60. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
FDC Germany	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
FDC Nashville Global	CyberSource always provides merchant descriptor information to the processor for you for all capture and credit transactions. See "Merchant Descriptors," page 140. **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
FDMS Nashville	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
FDMS South	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
GPN	GPN limits the authorization, capture, and credit amounts to 10 digits. Multiple partial captures are supported. See "Multiple Partial Captures," page 59. **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
HBoS	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
HSBC HSBC is the CyberSource name for HSBC U.K.	Multiple partial captures are supported. See "Multiple Partial Captures," page 59. **Important** This feature has restrictions. Contact CyberSource Customer Support for details.
Ingenico ePayments Ingenico ePayments was previously called *Global Collect*.	On Carte Bleue, the authorization and capture amount must be 0.99 EUR or more. Captures for cards using Ingenico ePayments are not batched. CyberSource submits these captures immediately to Ingenico ePayments when they are received.
JCN Gateway	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.

Table 16   Capture Information for Specific Processors (Continued)

Payment Processor	Capture Information
Litle	Litle limits authorization and capture amounts to eight digits; therefore, the maximum amount is 99999999.
	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Lloyds-OmniPay	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
LloydsTSB Cardnet	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
Moneris	Moneris limits authorization and capture amounts to nine digits; therefore, the maximum amount is 9999999.99.
OmniPay Direct	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Special request fields for multiple partial captures are recommended. See "Special Request Fields for Multiple Partial Captures," page 60.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.
OmniPay-Ireland	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Important This feature has restrictions. Contact CyberSource Customer Support for details.
Streamline	**Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 47.
TSYS Acquiring Solutions	Multiple partial captures are supported. See "Multiple Partial Captures," page 59.
	Special request fields for multiple partial captures are required. See "Special Request Fields for Multiple Partial Captures," page 60.
	Important ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 61.

Capture Features

Authorization Refresh

Processor:

■ Atos

CyberSource provides authorization refresh functionality to Atos merchants for all card types except Maestro (UK Domestic).

When a capture request occurs more than 5 days, 20 hours, and 30 minutes after the date of the original authorization, CyberSource tries to obtain a fresh authorization for the capture amount by performing a system-generated authorization using the payment data from the original authorization.

Payer authentication data and CVN data are not included in system-generated authorizations. Regardless of whether or not you included payer authentication data in your original authorization request, you will not receive payer authentication protection for a system-generated authorization.

If the system-generated authorization is successful, CyberSource submits the capture request with the information from the new authorization. If the system-generated authorization is not successful, CyberSource submits the capture request with the information from the original authorization.

The system-generated authorization is linked to the original authorization in the Business Center and in reports. The subsequent capture is linked to both authorizations in the Business Center and in reports through the request IDs as with any capture.

Automatic Partial Authorization Reversals

Processors and card types:

See the following table.

Table 17   Processors That Support Automatic Partial Authorization Reversals

Processor	Card Types
Barclays	Visa, Mastercard, JCB, Maestro (International), Maestro (UK Domestic)
Chase Paymentech Solutions[1]	Visa, Mastercard
CyberSource through VisaNet	Visa, Mastercard
FDC Compass[1]	Visa, Mastercard
FDC Nashville Global	Visa, Mastercard, Discover, Diners Club, JCB (US Domestic)[2]
FDMS Nashville	Visa, Mastercard, Discover, Diners Club, JCB (US Domestic)[2]
FDMS South	Visa, Mastercard, Discover, JCB (US Domestic)[2]
GPN	Visa, Mastercard On GPN, automatic partial authorization reversal is performed as part of interchange optimization, which is described in "Interchange Optimization," page 58.
Litle	Visa[1], Mastercard, Discover, Diners Club, JCB
OmniPay-Ireland OmniPay-Ireland is the CyberSource name for HSBC International.	Visa
TSYS Acquiring Solutions	Visa, Mastercard, Discover, Diners Club, JCB

1 The processor performs an automatic partial authorization reversal when there is an interchange benefit. The processor does not allow CyberSource to perform this functionality.
2 For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.

In addition to credit cards, automatic partial authorization reversals are supported for:

- Debit cards and prepaid cards: see Chapter 4, "Debit Cards and Prepaid Cards," on page 89.

- Quasi-cash: see "Quasi-Cash," page 200.

If the capture amount is less than the authorization amount, CyberSource automatically performs a partial authorization reversal before it sends the capture request to the processor. The results of a successful partial authorization reversal are:

■   The capture amount matches the new authorization amount at the payment card company.

■   The hold on the unused credit card funds might be released. The issuing bank decides whether or not to release the hold on unused funds.

> **Note** Not all issuers act on a request for a partial authorization reversal. Therefore, CyberSource cannot guarantee that the funds will be released.

Interchange Optimization

Processors:

■   CyberSource through VisaNet: Visa, Mastercard

> **Important** Interchange optimization is not available for Mastercard transactions in the IDR currency on CyberSource through VisaNet.

■   GPN acquiring merchants: Visa, Mastercard

Interchange optimization helps you reduce your interchange fees. Interchange optimization consists of:

■   Automatic authorization refresh: When the capture request occurs more than six days after the date of the original authorization, CyberSource automatically obtains a fresh authorization for the capture amount.

    On GPN, the fresh authorization uses the same authorization indicator as the original authorization. For more information, see "Final Authorization Indicator," page 121.

■   Automatic partial authorization reversal: If the capture does not need a fresh authorization but the capture amount is less than the authorization amount, CyberSource automatically performs a partial authorization reversal which releases the hold on unused credit card funds and ensures that the settlement amount matches the authorization amount.

> **Note** Interchange optimization does not work for card-present transactions.

To enable interchange optimization, contact CyberSource Customer Support to have your account configured for this feature.

Multiple Partial Captures

Processors:

- AIBMS

- American Express Direct

- Asia, Middle East, and Africa Gateway

- Barclays

- CCS (CAFIS)

- Chase Paymentech Solutions

- Elavon

- FDC Compass

- FDC Nashville Global: multiple partial captures are supported only for card-not-present transactions; they are not supported for card-present transactions.

- GPN

- HSBC: HSBC is the CyberSource name for HSBC U.K. To enable multiple partial captures on HSBC, contact CyberSource Customer Support to have your account configured for this feature.

- JCN Gateway

- Litle

- LloydsTSB Cardnet: to enable multiple partial captures on LloydsTSB Cardnet, contact CyberSource Customer Support to have your account configured for this feature.

- OmniPay Direct. The supported acquirers are:
  - Bank of America Merchant Services
  - First Data Merchant Solutions (Europe)
  - Global Payments International Acquiring

- OmniPay-Ireland: to enable multiple partial captures on OmniPay-Ireland, contact CyberSource Customer Support to have your account configured for this feature.

- Streamline. See "Multiple Partial Captures on Streamline," page 61.

- TSYS Acquiring Solutions

> *Multiple partial captures* and *split shipments* are not the same feature.
>
> **Note**
>
> - The multiple partial captures feature is provided by the processor. This feature enables you to request multiple partial captures for one authorization.
>
> - The split shipments feature is provided by CyberSource. This feature supports three different scenarios: multiple authorizations, multiple captures, and multiple authorizations with multiple captures. For more information, see "Split Shipments," page 214.

This feature enables you to request multiple partial captures for one authorization. You must ensure that the total amount of all the captures does not exceed the authorized amount.

Special Request Fields for Multiple Partial Captures

Processors:

- Barclays. The special request fields are required.

- FDC Compass. To avoid a downgrade for a Visa transaction, the special request fields are required. For other card types, CyberSource strongly recommends that you include the special request fields.

- FDC Nashville Global. The special request fields are required for Visa and Mastercard transactions. They are not supported for other card types.

- OmniPay Direct. CyberSource strongly recommends that you include the special request fields. The supported acquirers are:
  - Bank of America Merchant Services
  - First Data Merchant Solutions (Europe)
  - Global Payments International Acquiring

- TSYS Acquiring Solutions. The special request fields are required.

Include the following special request fields in each capture request when you are requesting multiple partial captures:

- ccCaptureService_sequence
- ccCaptureService_totalCount

If you do not know the total number of captures that you are going to request, set the capture total count to an estimated value or 99 for all capture requests except the final one. For the final capture request, set the capture total count and the capture sequence to the same value.

Multiple Partial Captures on Streamline

Streamline might consider a partial capture to be a duplicate and reject the transaction when one or more of the following is the same for a merchant ID. You must ensure that you do not submit duplicate transaction information when using multiple partial captures, otherwise Streamline may reject the transaction.

- transaction date
- card_accountNumber
- merchantReferenceCode
- purchaseTotals_grandTotalAmount

Multiple Partial Captures and Authorization Reversal after Void

Processors:

- American Express Direct
- Barclays
- Chase Paymentech Solutions
- FDC Compass
- FDC Nashville Global
- GPN
- Litle
- LloydsTSB Cardnet
- OmniPay Direct. The supported acquirers are:
  - Bank of America Merchant Services
  - First Data Merchant Solutions (Europe)
  - Global Payments International Acquiring
- TSYS Acquiring Solutions

This feature enables you to reverse an authorization after you void the associated capture.

! **Important**   This functionality enables you to meet the Visa mandate requirements to reverse unused authorizations, and it benefits the cardholder by releasing the hold on unused credit card funds.

For an authorization that has multiple associated captures:

- If you reverse the authorization, CyberSource declines subsequent capture requests.

- If you void only one of the multiple captures, CyberSource declines subsequent authorization reversal requests.

- If you void all of the multiple captures, you can reverse the authorization.

To reverse an authorization after a void for multiple captures:

Step 1   Void each capture associated with the authorization. See "Voiding a Capture or Credit," page 69.

Step 2   Reverse the authorization. See "Reversing an Authorization," page 41.

Performing a Sale

A sale is a bundled authorization and capture. You can use a sale instead of a separate authorization and capture if there is no delay between taking a customer's order and shipping the goods. A sale is typically used for electronic goods and for services that you can turn on immediately.

To perform a sale, request the authorization and capture services at the same time. Include the request fields that are required for the authorization. No additional fields are required for the capture.

If the authorization is successful, CyberSource processes the capture immediately and the reply message includes results for the authorization and for the capture. If the authorization is declined, CyberSource does not process the capture and the reply message includes results only for the authorization.

For debit cards and prepaid cards, the issuing bank can approve a partial amount if the balance on the card is less than the requested authorization amount and if the transaction is enabled for partial authorization. When this happens, CyberSource does not process the capture. However, you can submit a capture request for the approved amount. For details about partial authorizations and for a list of the processors and card types supported for partial authorizations, see "Partial Authorizations," page 89.

	For a limited number of processors and card types, partial authorizations are supported for credit cards in addition to debit cards and prepaid cards. See "Partial Authorizations," page 89.
Note	

For details about authorizations and captures, see "Authorizing a Payment," page 31, and "Capturing an Authorization," page 48.

Crediting a Payment

CyberSource supports credits for all processors.

When your request for a credit is successful, the issuing bank for the credit card takes money out of your merchant bank account and returns it to the customer. It usually takes two to four days for your acquiring bank to transfer funds from your merchant bank account.

	Carefully control access to this service to prevent unauthorized credits. Do not request this service directly from your customer interface. Instead, incorporate this service as part of your customer service process.
Warning	

Credit requests are batched in the same manner as captures. See "Captures," page 49.

Types of Credits

A *follow-on credit* is linked to a capture in the CyberSource system. You can request multiple follow-on credits against a single capture. On CyberSource through VisaNet, you must request a follow-on credit within 180 days of the authorization. For all other processors, you must request a follow-on credit within 60 days of the authorization.

	On Atos, your request for a follow-on credit must also include the request token returned from a previous capture request in addition to the request ID. Like the request ID, the request token links the follow-on credit to the capture. Send the request token in the **orderRequestToken** field.
Note	

	When you combine a request for a follow-on credit with a request for another service, such as the tax calculation service, you must provide the customer's billing and account information.
Important	

A *stand-alone credit* is not linked to a capture. There is no time limit for requesting stand-alone credits. Instead of sending the request ID field in the credit request, the request must include the fields for the customer's billing and account information.

	For stand-alone credits, CyberSource does not validate **billTo_postalCode** or **shipTo_postalCode**.
Note	

Creating a Credit Request

A follow-on credit uses the request ID returned from a previous capture to link the credit to the capture. CyberSource uses the request ID to look up the customer's billing and account information from the original authorization, so you are not required to include those fields in your credit request. To perform multiple partial follow-on credits, send the same request ID in each follow-on credit request.

For information about requesting a follow-on service, see *Getting Started with CyberSource Advanced for the Simple Order API*.

To create a credit request:

Step 1 Do not include any of these services in the request:

- Any other credit card services (**ccAuthService**, **ccAuthReversalService**, or **ccCaptureService**)

- Services for other payment methods, such as electronic checks, PayPal, bank transfers, and direct debits

- Risk update (**riskUpdateService**)

Step 2 Include the required fields in the request:

Table 18   Required Fields for Credits

Field	Notes
ccCreditService_run	Set to `true`.
ccCreditService_captureRequestID	For a follow-on credit, set to the request ID that was included in the capture reply message. Not used for a stand-alone credit.
merchantID	
merchantReferenceCode	
paymentSolution	Include this field only if you are using Visa Checkout.
purchaseTotals_currency	
purchaseTotals_grandTotalAmount	Either **purchaseTotals_grandTotalAmount** or **item_#_unitPrice** must be included in the request.
vc_orderID	Include this field only if you are using Visa Checkout.

See Appendix A, "API Fields," on page 232 for:

- Detailed descriptions of these required request fields
- Optional request fields
- Reply fields

Step 3 For a stand-alone credit, include additional required fields:

Table 19   Additional Required Fields for Stand-Alone Credits

Field	Notes
billTo_city[1]	
billTo_country[1]	
billTo_email[1]	
billTo_firstName[1]	
billTo_lastName[1]	
billTo_postalCode[1]	Required only for transactions in the U.S. and Canada.
billTo_state[1]	Required only for transactions in the U.S. and Canada.
billTo_street1[1]	
card_accountNumber	
card_cardType	Required for certain card types. CyberSource strongly recommends that you send the card type even if it is optional for your processor. Omitting the card type can cause the transaction to be processed with the wrong card type.
card_expirationMonth[1]	
card_expirationYear[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 75.
Important It is your responsibility to determine whether a field is required for the transaction you are requesting.

Step 4 If needed, modify the request to accommodate additional information for your processor. See "Credit Information for Specific Processors," page 66.

Step 5 Include optional features in the request. See Chapter 5, "Optional Features," on page 100.

Credit Information for Specific Processors

The following table provides additional information about credits for some processors.

Table 20   Credit Information for Specific Processors

Payment Processor	Credit Information
Atos	Atos supports only follow-on credits. Stand-alone credits are not supported. The credit amount cannot exceed the capture amount.
	Atos limits authorization, capture, and credit amounts to 12 digits; therefore, the maximum amount is 999999999999.
	A credit cannot be processed on the same day as the capture that is being credited. You must wait until the day after the capture before requesting a credit.
CCS (CAFIS)	CCS (CAFIS) supports stand-alone credits. However, when a request for a stand-alone credit is made, most acquirers make inquiries about the purpose of such a request. CyberSource recommends using follow-on credits instead of stand-alone credits whenever possible.
Cielo	Cielo does not support stand-alone credits.
	CyberSource recommends that you do not submit a follow-on credit request on the same day as the capture that is being credited.
Comercio Latino	Comercio Latino does not support stand-alone credits.
	A credit cannot be processed on the same day as the capture that is being credited. You must wait until the day after the capture before requesting a credit.
	Multiple partial credits cannot exceed the original authorization amount.
	CyberSource declines credit requests if the associated capture was not successful.
	Credits must be processed within 180 days of the original authorization.
	On American Express, multiple partial credits are not supported.

Table 20   Credit Information for Specific Processors (Continued)

Payment Processor	Credit Information
CyberSource Latin American Processing	CyberSource Latin American Processing supports only follow-on credits. Stand-alone credits are not supported. The 60-day limit for follow-on credits does not apply to CyberSource Latin American Processing: you can request a follow-on credit more than 60 days after the original charge. CyberSource Latin American Processing does not support the credit service for Aura Card and Hipercard. You must make manual refunds for these card types. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
CyberSource through VisaNet	CyberSource through VisaNet supports only follow-on credits. Stand-alone credits are not supported. CyberSource recommends that you do not submit a follow-on credit request on the same day as the capture that is being credited.
FDC Nashville Global	CyberSource always provides information to the processor for you for all capture and credit transactions. See "Merchant Descriptors," page 140.
FDMS South	FDMS South no longer requires you to include all AVS data fields in your requests. The only required AVS data fields are the country code and postal code. All other AVS data fields are optional even though they are marked as required in Table 67, "Request Fields," on page 234. However, if you omit AVS data fields that were previously required, you might experience an increase in the number of declined transactions and chargebacks. For additional information, contact your processor.
GPN	GPN limits the authorization, capture, and credit amounts to 10 digits.
Ingenico ePayments Ingenico ePayments was previously called *Global Collect*.	With Ingenico ePayments, you can process only one follow-on credit against a specific captured authorization each day. For example, if you want to process a follow-on credit of 15.00 against an original capture of 50.00, and then later you want to process a follow-on credit of 35.00 against the same capture, you must request the two credits on two separate days. Before performing stand-alone credits with Ingenico ePayments, you must contact CyberSource Customer Support. Credits for cards using Ingenico ePayments are not batched. CyberSource submits these captures immediately to Ingenico ePayments when they are received.

Table 20   Credit Information for Specific Processors (Continued)

Payment Processor	Credit Information
JCN Gateway	JCN Gateway supports stand-alone credits. However, when a request for a stand-alone credit is made, most acquirers make inquiries about the purpose of such a request. CyberSource recommends using follow-on credits instead of stand-alone credits whenever possible.
Litle	For a follow-on credit to be successfully processed, the capture that is being credited must have been processed successfully. To ensure that the capture is processed before the follow-on credit request is received, do not batch the follow-on credit on the same day as the capture.
	If the capture has not been processed yet, CyberSource sends this error message: `The follow-on credit cannot be processed because the capture transaction has not been processed yet.`
	If the capture has been processed but was not successful, CyberSource sends this error message: `The follow-on credit cannot be processed because the capture transaction failed.`
RBS WorldPay Atlanta	Follow-on refunds for verbal authorizations are not supported. You must process these refunds as stand-alone refunds.

Voiding a Capture or Credit

CyberSource supports voids for all processors except:

- Atos
- Ingenico ePayments

	Ingenico ePayments was previously called *Global Collect*.
Note	

- Lynk

	CyberSource Latin American Processing does not support voids for Aura Card and Hipercard because transactions with these cards are captured immediately.
Note	*CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this note is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.

	Cielo and Comercio Latino are online gateways. Transactions are batched every four minutes, which provides very little time for you to void a transaction.
Note	

A void cancels a capture or credit request that you submitted to CyberSource. A transaction can be voided only when CyberSource has not already submitted the capture or credit request to your processor. CyberSource usually submits capture and credit requests to your processor once a day, so your window for successfully voiding a capture or credit request is small. CyberSource declines your void request when the capture or credit request has already been sent to the processor.

You cannot perform a follow-on credit for a transaction that has been voided.

You cannot undo a void.

When you void a capture, a hold remains on the unused credit card funds. If you are not going to re-capture the authorization as described in "Capture after Void," page 70, and if your processor supports authorization reversal after void as described in "Authorization Reversal after Void (ARAV)," page 47, CyberSource recommends that you request an authorization reversal to release the hold on the unused credit card funds.

Capture after Void

If your processor supports multiple captures, you can capture an authorization after you void previous captures associated with the authorization. For example, you can perform the following sequence:

1   Authorize a payment.

2   Capture the authorization.

3   Void the capture.

4   Capture the authorization again.

To find out whether your processor supports multiple captures, see "Multiple Partial Captures," page 59.

On all other processors, when you void a transaction the transaction is at the end of its life and cannot be the source of another follow-on capture or credit. For example, if you authorize and capture a transaction, and then you void the capture, you cannot submit another capture request that uses the authorization code or CyberSource request ID from the original authorization. If you still want to capture that transaction, you must re-authorize the transaction and capture the new authorization.

Creating a Void Request

A void is a follow-on transaction that uses the request ID returned from a capture or credit. The request ID links the void to the service that is being voided. CyberSource uses the request ID to look up the customer's billing and account information from the capture or credit, so you are not required to include those fields in your void request.

For information about requesting a follow-on service, see *Getting Started with CyberSource Advanced for the Simple Order API*.

To create a void request:

Step 1   Do not include any other CyberSource services in the request.

Step 2   Include the required fields in the request:

Table 21   Required Fields for Voids

Field	Notes
merchantID	
merchantReferenceCode	
orderRequestToken	Required only for Atos.
voidService_run	Set to `true`.
voidService_voidRequestID	Set to the request ID that was included in the capture or credit reply message.

See Appendix A, "API Fields," on page 232 for:

- Detailed descriptions of these required request fields
- Reply fields

Authorization Features

You must support the authorization features that your processor supports.

Address Verification System (AVS)

| ✎ **Note** | AVS is supported only for cards issued in the U.K., the U.S., and Canada. |

Standard AVS

The following table lists the processors and card types for which CyberSource returns standard AVS results.

Table 22   Processors That Support Standard AVS

Processors	Credit Card Types
AIBMS	Visa, Mastercard, Maestro (International), Maestro (UK Domestic)
American Express Brighton	American Express You must contact CyberSource Customer Support to activate standard AVS for American Express Brighton.
American Express Direct	American Express You must contact CyberSource Customer Support to activate standard AVS for American Express Direct.
Atos	Visa and Mastercard: The billing country must be Great Britain.
Barclays	Visa, Mastercard, Maestro (UK Domestic)
Chase Paymentech Solutions	Visa, Mastercard, and American Express: The billing country must be the U.S., Canada, or Great Britain. Discover, Diners Club, and JCB: The billing country must be the U.S.

Table 22   Processors That Support Standard AVS (Continued)

Processors	Credit Card Types
Cielo	Visa, Mastercard, American Express
	Cielo can charge you additional fees for AVS processing. You must contact Cielo and CyberSource Customer Support to activate standard AVS for Cielo.
	AVS is supported only for credit card transactions, not debit card transactions.
	Format for Raw AVS Codes The raw AVS response code is a concatenation of two values:
	▪ The first value is the raw AVS code for the postal code.
	▪ The second value is the raw AVS code for the street address.
	If Cielo returns only one of the values, the missing value is indicated by a question mark (?). Examples:
	▪ ?N indicates that the raw AVS code for the postal code is missing and that the raw AVS code for the street address is N.
	▪ T? indicates that the raw AVS code for the postal code is T and that the raw AVS code for the street address is missing.
Comercio Latino	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard
	Comercio Latino supports AVS input, but does not support AVS response values.
	Important Because a raw AVS response value is not available, there is a potential impact to the Decision Manager services.
	You must contact CyberSource Customer Support to activate standard AVS for Comercio Latino.
CyberSource Latin American Processing	Visa, Mastercard, American Express, Diners Club
	In Brazil, AVS is supported only for Redecard. To perform AVS for Redecard in Brazil, you must provide the CPF (Cadastro de Pessoas Fisicas) and the building number.
	For AVS in Mexico, contact CyberSource Customer Support to have your account enabled for this feature.
	Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.

Table 22 Processors That Support Standard AVS (Continued)

Processors	Credit Card Types
CyberSource through VisaNet	Visa, Mastercard, American Express, Diners Club, JCB, Discover
	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 also affect risk decisions and chargebacks.
Elavon	Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)
	Your country and the billing country must be Great Britain. The currency must be British pounds.
FDC Compass	Visa, Mastercard, and American Express: The billing country must be the U.S., Canada, or Great Britain.
	Discover and Diners Club: The billing country must be the U.S.
FDC Germany	Visa, Mastercard
FDC Nashville Global	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
FDMS Nashville	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
FDMS South	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
GPN	Visa, Mastercard, American Express, Discover, Diners Club, JCB
HBoS	Visa, Mastercard
HSBC HSBC is the CyberSource name for HSBC U.K.	Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
Litle	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Lloyds-OmniPay	Visa, Mastercard
LloydsTSB Cardnet	Visa, Mastercard

Table 22   Processors That Support Standard AVS (Continued)

Processors	Credit Card Types
Lynk	Visa, Mastercard, American Express, Discover, Diners Club
Moneris	Visa, Mastercard, Discover
OmniPay Direct	Bank of America Merchant Services: Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
	First Data Merchant Solutions (Europe): Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)
	Global Payments International Acquiring: Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
OmniPay-Ireland OmniPay-Ireland is the CyberSource name for HSBC International.	Visa, Mastercard
RBS WorldPay Atlanta	Visa, Mastercard, American Express, Discover, Diners Club
Streamline	Visa, Mastercard, Maestro (UK Domestic), Carte Bleue, Dankort You must contact Streamline to activate standard AVS.
TSYS Acquiring Solutions	Visa, Mastercard, American Express, Diners Club: The billing country must be the U.S.

Relaxed Requirements for Address Data and Expiration Date

Services:

- Authorization
- Stand-alone credit

Processors:

- American Express Direct
- Chase Paymentech Solutions
- Comercio Latino
- CyberSource through VisaNet
- Elavon
- FDC Compass
- FDC Nashville Global
- FDI Australia
- FDMS South
- GPN
- Ingenico ePayments

> Ingenico ePayments was previously called *Global Collect*.
>
> **Note**

- OmniPay Direct

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

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

Relaxed requirements for address data and expiration date make the following fields optional for payment processing:

- billTo_city
- billTo_country
- billTo_email
- billTo_firstname
- billTo_lastname
- billTo_postalCode: if you include this field in your request, you must also include **billTo_country**.
- billTo_state
- billTo_street1
- card_expirationMonth: if you include this field in your request, you must also include **card_expirationYear**.
- card_expirationYear: If you include this field in your request, you must also include **card_expirationDate**.

> **Important**
>
> When relaxed requirements for address data and expiration date are enabled for your CyberSource account, and your service request does not include one or more of the fields in the preceding list, you increase the risk of declined transactions and fraud depending on your location, your processor, and the cardholder's issuing bank.
>
> It is your responsibility to determine whether a field is required for the transaction you are requesting. For example, effective October 2014, an issuing bank can decline an authorization request for a recurring transaction with a Visa Europe card if the expiration date is incorrect, invalid, or missing. If you do not provide the correct expiration date for a recurring transaction the authorization request may be declined.

Processing AVS Codes

When a processor supports AVS for a transaction's card type, the issuing bank uses AVS to confirm that the customer has provided the correct billing address. When a customer provides incorrect information, the transaction might be fraudulent.

AVS occurs automatically with every authorization request. The authorization reply includes the **ccAuthReply_avsCode** field, which contains the AVS code from the issuing bank that indicates whether AVS matched the address and whether the address match was partial or complete. See Appendix E, "AVS Codes," on page 381.

When AVS cannot verify the address, but the authorization is otherwise valid, you might receive an AVS decline. You can capture authorizations that receive an AVS decline. However, you must review these orders to ensure that they are legitimate. Settling authorizations that fail the AVS check might have an impact on the fees charged by your bank. Contact your bank for details about how AVS management might affect your discount rate.

The **ccAuthReply_avsCodeRaw** field is the raw AVS code sent directly from the processor. Do not use this value to handle the AVS response. Use the value only for debugging purposes.

Controlling AVS Results

By default, only the AVS code N results in an AVS decline. You can change this behavior by using the **businessRules_declineAVSFlags** field to specify a list of AVS codes that should result in an AVS decline.

![Important](warning icon) When you use **businessRules_declineAVSFlags**, you must include the value N in the list if you want to receive declines for the AVS code N.

Important

When your request includes the **businessRules_ignoreAVSResult** field set to true, you receive no AVS declines, even when you use **businessRules_declineAVSFlags**.

Enhanced AVS

Processor:

- American Express Direct

	You must contact CyberSource Customer Support and American Express to register for Enhanced AVS.
Note	

Card type:

- American Express

Enhanced AVS consists of the standard AVS functionality plus verification of some additional fields. The additional fields that are verified for Enhanced AVS are:

- billTo_firstName
- billTo_lastName

Automated Address Verification Plus (AAV+)

Processor:

- American Express Direct

	You must contact CyberSource Customer Support and American Express to register for AAV+.
Note	

Card type:

- American Express

AAV+ consists of the Enhanced AVS functionality plus verification of some additional fields. This service is intended for merchants who deliver physical goods to a different address than the billing address. AAV+ verifies the additional fields only when the standard and Enhanced AVS tests pass first.

The additional fields that are verified for AAV+ are:

- shipTo_firstName
- shipTo_lastName
- shipTo_street1
- shipTo_country
- shipTo_postalCode
- shipTo_phoneNumber
- billTo_phoneNumber: American Express Direct only

> **Note** For American Express Direct, when your account is enabled for AAV+ and when you include the first name, last name, and phone number in your request message, the reply message includes EV response codes for those fields. See "Electronic Verification (EV)," page 79.

Electronic Verification (EV)

Processors:

- American Express Direct
- FDC Nashville Global
- Litle: For EV, Litle verifies only the email address, first name, last name, and phone number.

  > **Note** If Litle is your processor, you must contact Litle to register for EV.

- TSYS Acquiring Solutions

Card types:

- American Express
- Discover—only on TSYS Acquiring Solutions. Only the first name and last name are checked.

EV confirms the customer's billing information. When a customer provides incorrect information, the transaction might be fraudulent.

> **Note** As part of EV for Litle and TSYS Acquiring Solutions, you can provide the IP address in the **billTo_ipAddress** field. When you provide the IP address, American Express does not send a response for it. Instead, American Express uses the IP address to run a check in their internal database to ensure that the IP address does not match previously fraudulent transactions with the same IP address and is not from countries that American Express has determined to be a high risk for fraud. If, based on the IP address, American Express determines that the transaction is fraudulent or is a high risk for fraud, American Express declines the transaction.

Request Fields

To receive an EV response code for a particular value, you must include that value in your authorization request. Table 23, "Request Fields for Electronic Verification," on page 80 lists the request fields for each value that EV can verify. In the table, the R/O column indicates whether the field is required or optional for the authorization service.

> **Note** Some merchants use placeholder data for some required fields, such as addresses and phone numbers, because their customers do not provide them with the required information. The benefit of using certain specific placeholder values is that Decision Manager ignores the values instead of attempting to process them. However, when you use placeholder data in any of the fields that are used for EV, the corresponding EV results are invalid.

Table 23   Request Fields for Electronic Verification

Value That Is Being Verified	R/O for Authorizations	Request Field
Email	R	billTo_email
First name[2]	R	billTo_firstName
Last name[2]	R	billTo_lastName
Phone number[2]	O	billTo_phoneNumber
Postal code	R/O[1]	billTo_postalCode
Street address	R	billTo_street1

1 Required when the billing country is the U.S. or Canada; otherwise, optional.
2 On American Express Direct, to receive EV response codes for the first name, last name, and phone number, your account must be enabled for AAV+. See "Automated Address Verification Plus (AAV+)," page 78.

Reply Fields

For each verified value, EV returns a raw response code and a mapped response code:

■ The *raw response code* is the value returned by the processor.

■ The *mapped response code* is the pre-defined CyberSource value that corresponds to the raw response code. Appendix J, "Electronic Verification Response Codes," on page 394 describes the mapped response codes.

The following table lists the reply fields for each value that EV can verify.

Table 24 API Fields for Electronic Verification Responses

Value That Is Being Verified	API Field for Mapped Response	API Field for Raw Response
Email	ccAuthReply_evEmail	ccAuthReply_evEmailRaw
First name and last name	ccAuthReply_evName	ccAuthReply_evNameRaw
Phone number	ccAuthReply_evPhoneNumber	ccAuthReply_evPhoneNumberRaw
Postal code	ccAuthReply_evPostalCode	ccAuthReply_evPostalCodeRaw
Street address	ccAuthReply_evStreet	ccAuthReply_evStreetRaw

Card Verification Numbers (CVNs)

Table 25 Processors That Support CVNs

Processors	Credit Card Types
AIBMS	Visa, Mastercard, Maestro (International), Maestro (UK Domestic)
American Express Brighton	American Express
American Express Direct	American Express
Asia, Middle East, and Africa Gateway	Visa, Mastercard, American Express, Diners Club
Atos	Visa, Mastercard, Carte Bleue
Barclays	Visa, Mastercard, Maestro (UK Domestic)
CCS (CAFIS)	Visa, Mastercard, American Express, Diners Club, JCB
Chase Paymentech Solutions	Visa, Mastercard, American Express, Discover
Cielo	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Maestro (International), Elo, Aura

Table 25 Processors That Support CVNs (Continued)

Processors	Credit Card Types
Comercio Latino	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard
	CVN is required for all credit card authorization requests except recurring transactions. CyberSource returns a CVN response value of 3 in the **ccAuthReply_cvCode** field in the authorization reply, which indicates that the processor did not send a CVN response. When you submit authorizations without CVNs, Comercio Latino or your acquirer declines them, unless you contact Comercio Latino and your acquirer to configure your account to allow transactions without CVNs. When a card fails the CVN check, Comercio Latino declines the authorization.
CyberSource Latin American Processing	Visa, Mastercard, American Express, Elo
	Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
CyberSource through VisaNet	Visa, Mastercard, American Express, Diners Club, JCB, Discover
Elavon	Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)
	Note Elavon does not return a separate CVN response field in the authorization reply. When the card fails the CVN check, Elavon declines the authorization.
FDC Compass	Visa, Mastercard, American Express, Discover
FDC Germany	Visa, Mastercard
FDC Nashville Global	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	Note For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
FDI Australia	Visa, Mastercard, American Express, Diners Club
FDMS Nashville	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	Note For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.

Table 25   Processors That Support CVNs (Continued)

Processors	Credit Card Types
FDMS South	Visa, Mastercard, American Express, Discover, Diners Club, JCB (US Domestic)
	Note For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
GPN	Visa, Mastercard, American Express, Discover, Diners Club
HBoS	Visa, Mastercard
HSBC HSBC is the CyberSource name for HSBC U.K.	Visa, Mastercard, Maestro (International)
Ingenico ePayments Ingenico ePayments was previously called *Global Collect*.	Visa, Mastercard **Note** Do not include the CVN in a request for a recurring payment. See "Recurring Payments," page 202.
JCN Gateway	Visa, Mastercard, American Express, Diners Club, JCB, NICOS house card
Litle	Visa, Mastercard, American Express, Discover
Lloyds-Omnipay	Visa, Mastercard
LloydsTSB Cardnet	Visa, Mastercard
Lynk	Visa, Mastercard, American Express, Discover, Diners Club
Moneris	Visa, Mastercard, American Express
OmniPay Direct	Bank of America Merchant Services: Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
	First Data Merchant Solutions (Europe): Visa, Mastercard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)
	Global Payments International Acquiring: Visa, Mastercard, Maestro (UK Domestic), Maestro (International)
OmniPay-Ireland OmniPay-Ireland is the CyberSource name for HSBC International.	Visa, Mastercard
RBS WorldPay Atlanta	Visa, Mastercard, American Express, Discover, Diners Club
Streamline	Visa, Mastercard, Maestro (UK Domestic), Carte Bleue, Dankort
TSYS Acquiring Solutions	Visa, Mastercard, American Express, Discover, Diners Club

CVN Locations and Terminology

The CVN, which is printed or embossed on the back of the card, can be sent with the request and verified to help reduce the risk of fraud.

Figure 3   Example of a Visa Card Verification Number
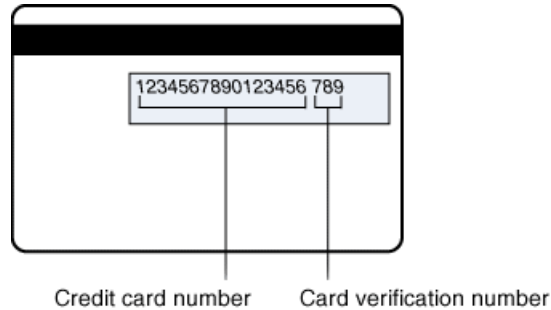
Each payment card company has its own name for this value:

- Visa calls it the *Card Verification Value* (CVV2).
- American Express and Discover call it the *Card Identification Digits* (CID).
- MasterCard calls it the *Card Validation Code* (CVC2).

To use the CVN, include the **card_cvNumber** field in the request. This number is never transferred during card swipes and should be known only by the cardholder.

CVN Codes

The reply message includes a raw response code and a mapped response code:

- The *raw response code* is the value returned by the processor. This value is returned in the **ccAuthReply_cvCodeRaw** field. Use this value only for debugging purposes; do not use it to determine the card verification response.

- The *mapped response code* is the pre-defined CyberSource value that corresponds to the raw response code. This value is returned in the **ccAuthReply_cvCode** field. describes the mapped response codes.

Even when the CVN does not match the expected value, the issuing bank might still authorize the transaction. You will receive a CVN decline from CyberSource, but you can still capture the transaction because it has been authorized by the bank. However, you must review the order to ensure that it is legitimate.

Settling authorizations that fail the CVN check might have an impact on the fees charged by your bank. Contact your bank for details about how card verification management might affect your discount rate.

When a CVN decline is received for the authorization in a sale request, CyberSource does not process the capture unless you set the **businessRules_ignoreCVResult** field to `true`.

Table 26   CVN Results for Each Card Type

Card Type	CVN Results
American Express	A **ccAuthReply_cvCode** value of `1` indicates that your account is not configured for CVN. Contact CyberSource Customer Support to have your account enabled for this feature. To use the CVN with American Express, see "Testing American Express Card Verification," page 231.
Discover	For FDC Nashville Global, FDMS Nashville, and FDMS South: ■ CVN results can be returned for any of the card types on the Discover Network as described in "Discover Acquisitions and Alliances," page 18. ■ The CVN results are returned to you and it is your responsibility to decide whether or not to accept the transaction. For all other processors, when the CVN does not match: ■ Discover refuses the card and the request is declined. ■ The reply message does not include the **ccAuthReply_cvCode** field, which indicates that the CVN failed.
Visa and Mastercard	A CVN code of `D` or `N` causes CyberSource to decline the request with reason code 230. You can still capture the transaction, but you must review the order to ensure that it is legitimate. **Note** CyberSource, not the issuing bank, assigns the CVN decline to the authorization. You can capture any authorization that has a valid authorization code from the issuing bank, even when the request receives a CVN decline. When the issuing bank does not authorize the transaction and the CVN does not match, the request is declined because the card is refused. You cannot capture the transaction.

Verbal Authorizations

CyberSource supports verbal authorizations for these processors:

■ AIBMS

■ American Express Brighton

■ American Express Direct

■ Asia, Middle East, and Africa Gateway

■ Barclays

■ CCS (CAFIS)

■ Chase Paymentech Solutions

■ CyberSource through VisaNet

- Elavon

- FDC Compass

- FDC Germany

- FDI Australia

- FDC Nashville Global

- FDMS Nashville

- FDMS South

- GPN

- HBoS

- HSBC: HSBC is the CyberSource name for HSBC U.K.

- JCN Gateway

- Litle

- Lloyds-OmniPay

- LloydsTSB Cardnet

- Lynk

- Moneris

- OmniPay Direct. The supported acquirers are:

  - Bank of America Merchant Services

  - First Data Merchant Solutions (Europe)

  - Global Payments International Acquiring

- OmniPay-Ireland: OmniPay-Ireland is the CyberSource name for HSBC International.

- RBS WorldPay Atlanta

- TSYS Acquiring Solutions

- UATP

Note

Verbal authorizations are not supported for Comercio Latino or CyberSource Latin American Processing.

CyberSource Latin American Processing is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this note is for the specific processing connections called *Comercio Latino* and *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.

> ⚠️ **Important**   Do not use Dynamic Currency Conversion with a verbal authorization.

When you request an authorization through CyberSource, the issuing bank might ask you to call the payment processor to answer questions about the transaction. When this happens, the processor gives you a verbal authorization code for the transaction. To capture a verbally authorized transaction, send the verbal authorization code in the capture request. Make sure your customer service and point-of-sale staff can enter verbal authorization codes into your system.

You can use a verbal authorization to capture an authorization that was declined for any of these reasons:

- Verbal authorization required
- Card expired
- Card refused
- Invalid card

> ⚠️ **Important**   Do not confuse verbal authorizations with forced captures:
>
> - With a verbal authorization, you obtain the authorization code directly from the processor or issuing bank after requesting an authorization through CyberSource and receiving a CyberSource decline.
> - With a forced capture, you get the authorization code by authorizing a payment outside of CyberSource. See "Forced Captures," page 126.
>
> In both cases, you must follow up with a capture that uses the CyberSource system.

A verbal authorization works as follows:

1   The authorization reply includes reason code 201, which indicates that the issuing bank is requiring a verbal authorization.

For the American Express card type on FDMS Nashville, the authorization reply also includes a referral response number in **ccAuthReply_referralResponseNumber**. You will be asked for this number, which identifies the failed transaction, when you call American Express for the verbal authorization.

2   You call the processor to answer questions about the transaction.

3   When the processor verbally authorizes the transaction, the processor gives you a verbal authorization code.

4 You include the verbal authorization code in your capture request:

- Send the verbal authorization code in the **ccCaptureService_verbalAuthCode** field.

- Send the word VERBAL in the **ccCaptureService_authType** field.

  If you don't set **ccCaptureService_authType** to VERBAL, the **ccCaptureService_ verbalAuthCode** field is ignored.

- For the American Express card type on American Express Direct or FDMS South, the **ccCaptureService_posData** and **ccCaptureService_transactionID** fields are required to comply with the CAPN requirements.

Note

American Express has indicated that capture requests submitted without a valid transaction ID, including transactions that originated as verbal authorizations, might incur additional transaction charges. Contact your American Express account representative to find out whether your processing is affected by these additional transaction charges.

Debit Cards and Prepaid Cards

Debit cards and prepaid cards are processed using the credit card services described in this document. This chapter describes the special features that are available for debit cards and prepaid cards.

Note	To process domestic debit transactions on CyberSource through VisaNet with Mastercard in Canada, you must contact CyberSource Customer Support to have your account configured for this feature.

Note	When you use the Simple Order API in XML format, you must use version 1.52 or later of the XML schema to implement partial authorizations or balance responses.

Partial Authorizations

Note	The partial authorization functionality does not apply to credit cards.

For debit cards and prepaid cards, the issuing bank can approve a partial amount if the balance on the card is less than the requested authorization amount.

Supported Processors and Card Types

The following table lists the processors and card types for which CyberSource supports partial authorizations. If your processor and card type are not listed in the table, see "Unsupported Processors and Card Types," page 99.

Table 27   Processors Supported for Partial Authorizations

Processor	Card Types for Debit Cards and Prepaid Cards
American Express Direct	American Express
Chase Paymentech Solutions	Visa, Mastercard, American Express, Discover, Diners Club
CyberSource through VisaNet	Visa, Mastercard, American Express, Diners Club, JCB, Discover
	Important Partial authorizations are not available for Mastercard transactions in the IDR currency on CyberSource through VisaNet.
FDC Compass[1]	Visa, Mastercard, American Express, Discover
FDC Nashville Global	Visa, Mastercard, American Express, Discover[2], Diners Club[2], JCB (US Domestic)[2,3]
FDMS Nashville	Visa, Mastercard, American Express, Discover[2], Diners Club[2], JCB (US Domestic)[2,3]
FDMS South[4]	Visa, Mastercard, American Express, Discover[2], JCB (US Domestic)[2,3]
GPN	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Litle	Visa, Mastercard, American Express, Discover, Diners Club, JCB
TSYS Acquiring Solutions	Visa, Mastercard, American Express, Discover, Diners Club, JCB

1 FDC Compass might support partial authorizations for additional card types in the future so be prepared to handle partial authorizations for all card types if your account is enabled for partial authorizations.
2 For this card type on the specified processor, partial authorizations are supported for credit cards in addition to debit cards and prepaid cards.
3 For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
4 FDMS South might support partial authorizations for additional card types in the future so be prepared to handle partial authorizations for all card types if your account is enabled for partial authorizations.

Opting In

Note	If you accept American Express cards and Chase Paymentech Solutions is your processor, see "Special Processing for American Express Cards on Chase Paymentech Solutions," page 93.

You must opt in to be able to receive and capture partial authorizations. There are two ways to opt in:

- You can call CyberSource Customer Support to have your account enabled for partial authorizations. When you do this, all your authorization requests are enabled for partial authorizations.

or

- You can set **ccAuthService_partialAuthIndicator** to `true` in your authorization or sale request. When you do this, only that specific transaction is enabled for partial authorization.

Note	When your account is enabled for partial authorizations, you can disable partial authorization for a specific transaction by setting **ccAuthService_partialAuthIndicator** to `false` in your authorization or sale request.

How a Partial Authorization Works

Note	Support for your processor and card type does not guarantee a partial authorization. The issuing bank decides whether or not to approve a partial amount.

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

1 If your account is not configured for partial authorizations, you must enable partial authorizations for the transaction by setting **ccAuthService_partialAuthIndicator** to `true` in your request.

Note	If you accept American Express cards and Chase Paymentech Solutions is your processor, see "Special Processing for American Express Cards on Chase Paymentech Solutions," page 93.

> **Note** If you accept IDR or CLP currencies on FDMS South, see "Special Processing for IDR and CLP on FDMS South," page 93.

2   You submit an authorization request or a sale request for a debit card or prepaid card.

3   The authorization reply message from CyberSource includes:

- ccAuthReply_requestAmount: amount you requested
- ccAuthReply_requestCurrency: currency for the amount you requested
- ccAuthReply_amount: amount that was authorized
- purchaseTotals_currency: currency for the amount that was authorized
- requestID: value you can use to link this authorization request to subsequent transactions

> **Note** If you requested a sale, the authorization was not captured.

4   You submit a capture request for the partial authorization.

If you capture only part of the approved amount, CyberSource or your processor might be able to perform an automatic partial authorization reversal for you. See "Automatic Partial Authorization Reversals," page 57.

> **Note** If you do not capture the partial authorization, you must request a full authorization reversal if this service is supported for your processor and card type. See "Reversing an Authorization," page 41.

5   You use one or more different payment methods for the rest of the order amount.

When you process these payment methods through CyberSource, you can use the **linkToRequest** field to link the payment requests to the original authorization request. Set **linkToRequest** to the **requestID** value that was returned in the reply message for the original authorization request.

Special Processing for American Express Cards on Chase Paymentech Solutions

If you accept American Express cards and Chase Paymentech Solutions is your processor, perform the following procedure to opt in to partial authorizations.

To opt in to partial authorizations for American Express cards on Chase Paymentech Solutions:

Step 1   Contact Chase Paymentech Solutions to have your account enabled for partial authorizations for the American Express card type. The transaction division for partial authorizations for American Express should be set to 3.

> ⚠ **Important**   This step is only for the American Express card type on Chase Paymentech Solutions. For all other card types on Chase Paymentech Solutions, the transaction division for partial authorizations should be set to the default value of 0 (zero).

Step 2   Contact CyberSource Customer Support to have your account enabled for partial authorizations.

After your accounts have been enabled for partial authorizations at Chase Paymentech Solutions and at CyberSource, you can disable partial authorizations for a specific transaction by setting **ccAuthService_partialAuthIndicator** to `false` in your authorization or sale request.

Special Processing for IDR and CLP on FDMS South

For the Indonesian rupiah (IDR) and Chilean peso (CLP) currencies only:

- Rounding occurs, which can cause a minor discrepancy of up to one currency unit between the amount you requested and the amount that is authorized.

- When a transaction is enabled for partial authorization, you must ensure that the requested amount does not include any digits to the right of the decimal separator.

Real-Time Reversals

There are two kinds of real-time reversals:

■ A *full authorization reversal* is a service that you can request.

If you do not capture a partial authorization and if full authorization reversals are supported for your processor and card type, you must request a full authorization reversal to release the hold that the authorization placed on the customer's funds. The amount of the reversal must be the amount that was authorized, not the amount that was requested. For details about this service and to see the processors and card types for which this service is supported, see "Reversing an Authorization," page 41.

■ An *automatic partial authorization reversal* is performed automatically by CyberSource or your processor under certain conditions.

If you capture a partial authorization for an amount that is less than the approved amount, CyberSource automatically performs a partial authorization reversal if it is supported for your processor and card type. CyberSource performs the automatic partial authorization reversal before sending the capture request to the processor.

	Some processors perform an automatic partial authorization reversal when there is an interchange benefit. These processors do not allow CyberSource to perform this functionality.
Note	

For details about automatic partial authorization reversals and for a list of the processors and card types for which it is supported, see "Automatic Partial Authorization Reversals," page 57.

Balance Responses

Note	Normally, balance responses are not returned for debit cards.

Note	To receive balance responses from Litle, your Litle account must be enabled for this feature.

When there is a balance remaining on a prepaid card after an authorization, the authorization reply can include the balance amount. Depending on what data your processor sends to CyberSource, the following fields might be included in the reply:

■   ccAuthReply_accountBalance: balance amount remaining on the prepaid card after the authorization

Note	For Discover, some processors return the balance in the **ccAuthReply_authorizationCode** field.

■   ccAuthReply_accountBalanceCurrency: currency of the balance amount

■   ccAuthReply_accountBalanceSign: sign for the balance amount

For descriptions of these fields, see Appendix A, "API Fields," on page 232.

The following table lists the processors and card types for which balance responses are supported. Depending on what data your processor sends to CyberSource, the following fields might be included in the reply.

Table 28 Processors Supported for Balance Responses

Processor	Card Type	Balance Field [1]	Currency Field	Sign Field
American Express Direct	American Express	Yes	Yes	no
Chase Paymentech Solutions	Visa	Yes	Yes	no
	Mastercard	Yes	Yes	no
	American Express	Yes	Yes	no
	Discover	Yes	Yes	no
	Diners Club	Yes	Yes	no
	Maestro (International)	Yes	Yes	no
CyberSource through VisaNet	Visa	Yes	Yes	Yes
	Mastercard	Yes	Yes	Yes
	American Express	Yes	Yes	Yes
	Discover	Yes	Yes	Yes
	Diners Club	Yes	Yes	Yes
	JCB	Yes	Yes	Yes
FDC Compass	Visa	Yes	Yes	no
	Mastercard	Yes	Yes	no
	American Express	Yes	Yes	no
	Discover	Yes	Yes	no
FDC Nashville Global	Visa	Yes	Yes	Yes
	Mastercard	Yes	Yes	Yes
	American Express	Yes	Yes	Yes
	Discover	Yes	Yes	Yes
	Diners Club	Yes	Yes	Yes
	JCB	Yes	Yes	Yes
FDMS Nashville	Visa	Yes	Yes	Yes
	Mastercard	no	no	no
	American Express	Yes	Yes	Yes
	Discover	no	no	no
	Diners Club	no	no	no
	JCB	no	no	no

1 For Discover, some processors return the balance in the **ccAuthReply_authorizationCode** field.

Table 28   Processors Supported for Balance Responses (Continued)

Processor	Card Type	Balance Field [1]	Currency Field	Sign Field
FDMS South	Visa	Yes	Yes	Yes
	Mastercard	no	no	no
	American Express	Yes	Yes	Yes
	Discover	no	no	no
	Diners Club	no	no	no
	JCB	no	no	no
GPN	Visa	Yes	Yes	Yes
	Mastercard	Yes	Yes	Yes
	American Express	Yes	Yes	Yes
	Discover	Yes	Yes	Yes
	Diners Club	Yes	Yes	Yes
	JCB	Yes	Yes	Yes
Litle	Visa	Yes	Yes	no
	Mastercard	Yes	Yes	no
	American Express	Yes	Yes	no
	Discover	Yes	Yes	no
	Diners Club	Yes	Yes	no
	JCB	Yes	Yes	no
TSYS Acquiring Solutions	Visa	Yes	Yes	Yes
	Mastercard	Yes	Yes	Yes
	American Express	Yes	Yes	Yes
	Discover	Yes	Yes	Yes
	Diners Club	Yes	Yes	Yes
	JCB	Yes	Yes	Yes

1 For Discover, some processors return the balance in the **ccAuthReply_authorizationCode** field.

Features for Maestro (UK Domestic) Cards

To see which processors support Maestro (UK Domestic) cards, see "Payment Processors," page 26.

Note	This section previously covered Solo cards, but Solo cards are being phased out.

Note	Maestro (UK Domestic) cards were previously called Switch cards.

Maestro (UK Domestic) cards are debit cards that originate in the United Kingdom. These cards can have the following features:

- Issue number: A Maestro (UK Domestic) card might have an issue number embossed on it. The issue number can consist of one or two digits; the first digit can be a zero. An issue number of 2 is different from 02.

Note	Effective May 2011, the issue number is no longer required for Maestro (UK Domestic) transactions.

- Start date: A Maestro (UK Domestic) card might have a start date embossed on it. The start date consists of a month and year.

Note	Effective May 2011, the start date is no longer required for Maestro (UK Domestic) transactions.

Unsupported Processors and Card Types

Prepaid cards and debit cards that do not appear in Table 27, "Processors Supported for Partial Authorizations," on page 90 are processed as follows:

- When the card balance is sufficient for the requested transaction, the transaction is successful.

- When the card balance is not sufficient for the requested transaction, the request is declined.

Optional Features

$0 Authorizations

See "Zero Amount Authorizations," page 224.

Additional Amounts

Services:

- Capture
- Credit

Processor:

- American Express Direct

This feature enables you to provide detailed information about specific amounts included in a transaction. For example, if a transaction amount includes a gratuity of 5.00, you can include these fields in the capture or credit request:

```
purchaseTotals_additionalAmount0=5.0
purchaseTotals_additionalAmountType0=058
```

You can include a maximum of five additional amounts in a transaction. For each amount, you must include an amount field and an amount type field:

- purchaseTotals_additionalAmount0 through purchaseTotals_additionalAmount4
- purchaseTotals_additionalAmountType0 through purchaseTotals_additionalAmountType4

The additional amount type values are listed in Appendix C, "Additional Amount Types," on page 377.

Shipping and Handling Fees

Additional amount fields for shipping and handling fees take precedence over item-level fields. See the following example.

Example 1   Shipping and Handling Fees

1   You include the following lines in your request:

```
purchaseTotals_additionalAmount0=9.95
purchaseTotals_additionalAmountType0=055
item_0_productCode=shipping_and_handling
item_0_unitPrice=12.95
```

2   CyberSource processes the additional amount fields for the shipping and handling amount of 9.95. The item-level fields for the shipping and handling amount are ignored.

Taxes

Additional amount fields for taxes take precedence over item-level fields. See the following example.

Example 2   Taxes

1   You include the following lines in your request:

```
purchaseTotals_additionalAmount0=7.95
purchaseTotals_additionalAmountType0=046
item_0_taxAmount=5.95
```

2   CyberSource processes the additional amount fields for the tax amount of 7.95. The item-level field for the tax amount is ignored.

Aggregator Support

This feature enables a third-party agent to act as a payment aggregator and process credit card transactions for sub-merchants. Independent sales organizations (ISOs) and member service providers (MSPs) are agents that can also leverage these aggregator features.

Contact CyberSource Customer Support to have your account configured for this feature.

Terminology

Table 29   Aggregator Terminology

Term	Definition
aggregator	Also known as *payment aggregator.* Organization that aggregates sub-merchants under a single account and settles funds directly to the sub-merchants. An aggregator is usually an ISO or MSP.
independent sales organization (ISO)	Organization that does one or more of the following: ■ Works with acquirers to sponsor merchant accounts and usually assumes the risks associated with the merchants' processing. ■ Procures new merchant relationships based on contracts with acquirers. ■ Connects with a gateway to process online credit card transactions for small businesses, usually in exchange for a fee or percentage of sales.
member service provider (MSP)	Same as an ISO although an MSP has no financial responsibility to the merchant.
payment facilitator	Payment aggregator.
service provider	Third-party or outsource provider of payment processing services. A service provider typically provides a single service with no role in settling funds to a merchant.
sub-merchant	Merchant whose transactions are submitted to CyberSource by a payment aggregator.
third-party agent	Umbrella term for independent sales organizations, member service providers, payment aggregators, and payment facilitators.

American Express Direct Aggregators

Services:

■ Authorization

■ Capture

■ Credit

Card type:

■ American Express

The following fields are required for aggregator transactions when requesting an authorization, capture, or credit:

■ ccAuthService_aggregatorID—required only for the authorization service

■ ccAuthService_aggregatorName—required only for the authorization service

■ ccCaptureService_aggregatorID—required only for the capture service

■ ccCaptureService_aggregatorName—required only for the capture service

- ccCreditService_aggregatorID—required only for the credit service
- ccCreditService_aggregatorName—required only for the credit service
- invoiceHeader_submerchantCity
- invoiceHeader_submerchantCountry
- invoiceHeader_submerchantEmail
- invoiceHeader_submerchantID
- invoiceHeader_submerchantName
- invoiceHeader_submerchantPostalCode
- invoiceHeader_submerchantState
- invoiceHeader_submerchantStreet
- invoiceHeader_submerchantTelephoneNumber
- merchantCategoryCode

The following fields are optional for aggregator transactions:

- invoiceHeader_merchantDescriptor
- invoiceHeader_merchantDescriptorCity
- invoiceHeader_merchantDescriptorContact
- invoiceHeader_merchantDescriptorCountry
- invoiceHeader_merchantDescriptorPostalCode
- invoiceHeader_merchantDescriptorState
- invoiceHeader_merchantDescriptorStreet

All fields except the merchant descriptor fields are described in Appendix A, "API Fields," on page 232. For information about the merchant descriptor fields, see Table 39, "Merchant Descriptor Fields for American Express Direct," on page 142.

Typically, the merchant descriptor field is used to display your business name on the cardholder's statement. However, when you are a payment aggregator, you can use other values to provide the sub-merchant's business name for capture and credit requests. The following table describes these values. The order of the values in the table is the order that CyberSource uses to determine which values to use.

Table 30 **Values for Providing a Sub-Merchant's Business Name on American Express Direct**

Option	Values	Description
1	Aggregator Name + Sub-merchant Name	***Aggregator Name*** The aggregator name is an API field you can include in your request. The API fields are **ccAuthService_aggregatorName, ccCaptureService_ aggregatorName**, and **ccCreditService_aggregatorName**. ***Sub-merchant Name*** The sub-merchant name is the value from the **invoiceHeader_ suberchantName** field. ***Aggregator Name + Sub-merchant Name*** When you include the aggregator name field in your request and when your CyberSource account information includes a sub-merchant name, CyberSource combines these two values to provide the business name information for the cardholder's statement. This approach is advantageous because it allows the business name information to be longer than the size of the merchant descriptor field, which has a length of 27 characters. The total length of the value that CyberSource sends to the processor is 36 characters. It is formatted with an asterisk (*) between the aggregator name and the sub-merchant name: `aggregator name*sub-merchant name` Because the asterisk uses one character, 35 characters remain for the combined length of the aggregator name and sub-merchant name. **Important** If the combined length of the aggregator name and sub-merchant name exceeds 36 characters, CyberSource declines the transaction.
2	Merchant Descriptor	When you do not provide the values for the preceding option, you can provide the business name in the merchant descriptor field **invoiceHeader_ merchantDescriptor**. This field is described in Table 39, "Merchant Descriptor Fields for American Express Direct," on page 142.
3	Merchant Name	When you do not provide the values for the preceding two options, CyberSource uses the merchant name in your CyberSource account. To add this value to your CyberSource account, contact CyberSource Customer Support.

CyberSource through VisaNet Aggregators

Services:

- Authorization
- Capture
- Credit

Card types:

- American Express
- Diners Club
- Discover
- JCB
- Mastercard
- Visa

Aggregator Transactions with American Express

Authorizations

When requesting an authorization, you must include the following fields:

- ccAuthService_aggregatorID
- ccAuthService_aggregatorName
- invoiceHeader_submerchantCity
- invoiceHeader_submerchantName
- invoiceHeader_submerchantStreet

These fields are optional:

- invoiceHeader_submerchantCountry
- invoiceHeader_submerchantEmail
- invoiceHeader_submerchantID
- invoiceHeader_submerchantPostalCode
- invoiceHeader_submerchantState
- invoiceHeader_submerchantTelephoneNumber

The preceding fields are described in Appendix A, "API Fields," on page 232*.*

Captures and Credits

When requesting a capture or credit, these fields are optional:

- invoiceHeader_merchantDescriptor
- invoiceHeader_merchantDescriptorCity
- invoiceHeader_merchantDescriptorContact
- invoiceHeader_merchantDescriptorCountry
- invoiceHeader_merchantDescriptorPostalCode
- invoiceHeader_merchantDescriptorState
- invoiceHeader_merchantDescriptorStreet
- invoiceHeader_submerchantEmail
- invoiceHeader_submerchantID
- invoiceHeader_submerchantTelephoneNumber
- merchantCategoryCode

All fields except the merchant descriptor fields are described in Appendix A, "API Fields," on page 232. The merchant descriptor fields are described in Table 43, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 150 for authorizations and in Table 44, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 152 for captures and credits.

Typically, the merchant descriptor field is used to display your business name on the cardholder's statement. However, when you are a payment aggregator, you can use other values to provide the sub-merchant's business name for capture and credit requests. When you do not provide a value in the merchant descriptor fields, CyberSource uses the values in your CyberSource account. To add or update the values in your CyberSource account, contact CyberSource Customer Support.

Aggregator Transactions with Mastercard

When requesting an authorization, you must include the following fields:

- ccAuthService_aggregatorID
- invoiceHeader_salesOrganizationID
- invoiceHeader_submerchantID

When requesting an authorization, capture, or credit, these fields are optional:

- invoiceHeader_merchantDescriptor
- invoiceHeader_merchantDescriptorCity
- invoiceHeader_merchantDescriptorContact
- invoiceHeader_merchantDescriptorCountry
- invoiceHeader_merchantDescriptorPostalCode

- invoiceHeader_merchantDescriptorState

- invoiceHeader_merchantDescriptorStreet

- merchantCategoryCode

All fields except the merchant descriptor fields are described in Appendix A, "API Fields," on page 232. The merchant descriptor fields are described in Table 43, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 150 for authorizations and in Table 44, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 152 for captures and credits.

Typically, the merchant descriptor field is used to display your business name on the cardholder's statement. However, when you are a payment aggregator, you can use other values to provide the sub-merchant's business name for capture and credit requests. When you do not provide a value in the merchant descriptor fields, CyberSource uses the values in your CyberSource account. To add or update the values in your CyberSource account, contact CyberSource Customer Support.

Aggregator Transactions with Any Other Card Type

When requesting an authorization, capture, or credit, these fields are optional:

- invoiceHeader_merchantDescriptor

- invoiceHeader_merchantDescriptorCity

- invoiceHeader_merchantDescriptorContact

- invoiceHeader_merchantDescriptorCountry

- invoiceHeader_merchantDescriptorPostalCode

- invoiceHeader_merchantDescriptorState

- invoiceHeader_merchantDescriptorStreet

- merchantCategoryCode

All fields except the merchant descriptor fields are described in Appendix A, "API Fields," on page 232. The merchant descriptor fields are described in Table 43, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 150 for authorizations and in Table 44, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 152 for captures and credits.

Typically, the merchant descriptor field is used to display your business name on the cardholder's statement. However, when you are a payment aggregator, you can use other values to provide the sub-merchant's business name for capture and credit requests. When you do not provide a value in the merchant descriptor fields, CyberSource uses the values in your CyberSource account. To add or update the values in your CyberSource account, contact CyberSource Customer Support.

FDC Compass Aggregators

Services:

- Authorization
- Capture
- Credit

Card types:

- American Express
- Mastercard

The following fields are required for aggregator transactions with American Express or Mastercard when requesting an authorization, capture, or credit:

- ccAuthService_aggregatorID—required only for the authorization service
- ccAuthService_aggregatorName—required only for the authorization service with Mastercard
- ccCaptureService_aggregatorID—required only for the capture service
- ccCaptureService_aggregatorName—required only for the capture service with Mastercard
- ccCreditService_aggregatorID—required only for the credit service
- ccCreditService_aggregatorName—required only for the credit service with Mastercard
- invoiceHeader_submerchantCity
- invoiceHeader_submerchantID
- invoiceHeader_submerchantName
- invoiceHeader_submerchantTelephoneNumber

The following fields are optional for aggregator transactions:

- invoiceHeader_submerchantCountry
- invoiceHeader_submerchantEmail
- invoiceHeader_submerchantPostalCode
- invoiceHeader_submerchantState
- invoiceHeader_submerchantStreet
- merchantCategoryCode—supported only for the authorization service

All fields are described in Appendix A, "API Fields," on page 232.

For Mastercard aggregator captures and credits, CyberSource combines the following two values to provide the business name information for the cardholder's statement:

- Aggregator name in the **ccCaptureService_aggregatorName** or **ccCreditService_ aggregatorName** field.
- Sub-merchant name in the **invoiceHeader_suberchantName** field.

The total length of the value that CyberSource sends to the processor is 36 characters. It is formatted with an asterisk (*) between the aggregator name and the sub-merchant name:

```
aggregator name*sub-merchant name
```

Because the asterisk uses one character, 37 characters remain for the combined length of the aggregator name and sub-merchant name.

> ⚠️
> **Important**
>
> If the combined length of the aggregator name and sub-merchant name exceeds 37 characters, CyberSource declines the transaction.

FDC Nashville Global Aggregators

Services:

■ Authorization

■ Capture

■ Credit

Card types:

■ American Express

■ Mastercard

The following fields are required for aggregator transactions with American Express or Mastercard when requesting an authorization, capture, or credit:

■ ccAuthService_aggregatorID—required only for the authorization service

■ ccAuthService_aggregatorName—required only for the authorization service

■ ccCaptureService_aggregatorID—required only for the capture service

■ ccCaptureService_aggregatorName—required only for the capture service

■ ccCreditService_aggregatorID—required only for the credit service

■ ccCreditService_aggregatorName—required only for the credit service

■ invoiceHeader_submerchantCity

■ invoiceHeader_submerchantCountry

■ invoiceHeader_submerchantEmail

■ invoiceHeader_submerchantID

■ invoiceHeader_submerchantName

■ invoiceHeader_submerchantPostalCode

■ invoiceHeader_submerchantState

■ invoiceHeader_submerchantStreet

■ invoiceHeader_submerchantTelephoneNumber

■ merchantCategoryCode

The following fields are optional for aggregator transactions:

- invoiceHeader_submerchantMerchantID—supported only for American Express

- invoiceHeader_submerchantRegion

All fields are described in Appendix A, "API Fields," on page 232.

Airline Data

See *Airline Processing Using the Simple Order API*.

American Express SafeKey

See "Payer Authentication," page 184.

Android Pay

See *Android Pay Using the Simple Order API.*

Apple Pay

See *Apple Pay Using the Simple Order API.*

Authorization Only

Service:

- Authorization

Processor:

- American Express Direct

In the authorization reply message, CyberSource provides you with point-of-sale (POS) and transaction ID (TID) values. If you perform authorizations through CyberSource and perform captures and credits through other financial institutions, you can include these values in your capture requests and follow-on credit requests:

- POS data: Get this value from **ccAuthReply_posData**.
- TID: Get this value from **ccAuthReply_transactionID**.

Including these values in your capture requests and follow-on credit requests enables you to comply with the CAPN requirements, thus avoiding noncompliance fees.

> **Note** When you use the Simple Order API in XML format, you must use version 1.63 or later of the XML schema to implement the authorization only feature.

AVS Only

See "Zero Amount Authorizations," page 224.

Balance Inquiries

Service:

- Authorization

Processor:

- CyberSource through VisaNet

This feature enables you to request balance information for an account.

To use this feature, include the **balanceInquiry** field in an authorization request. The amount in the request must be zero.

CyberSource returns the following fields:

- ccAuthReply_accountBalance
- ccAuthReply_accountBalanceCurrency
- ccAuthReply_accountBalanceSign
- ccAuthReply_accountType
- ccAuthReply_amountType

These fields are described in "API Fields," page 232.

Bill Payments with Visa

See "Visa Bill Payments," page 222.

Card-Present Data

See *Card-Present Processing Using the Simple Order API*.

Card Type Indicators (CTIs)

Service:

- Authorization

Processor:

- Chase Paymentech Solutions

> **Note** Contact CyberSource Customer Support to have your account configured for this feature.

This feature enables you to receive CTI information in your authorization reply messages. The processor can provide CTI information for approved or declined transactions, not for rejected transactions.

To receive CTI information:

Your authorization request message must comply with the CTI acceptance criteria as described in the following table.

Table 31   CTI Acceptance Criteria

Card Type	Acceptance Criteria
American Express	CTI is not supported.
Carte Blanche	CTI is not supported.
Diners Club	Currency is USD or CAD.
Discover	Currency is USD or CAD.
JCB	Currency is USD.
Mastercard	Any currency.
Visa	Amount is not 0 (zero). Any currency.

The CTI information is returned in the following fields:

- ccAuthReply_affluenceIndicator
- ccAuthReply_cardCommercial
- ccAuthReply_cardHealthcare
- ccAuthReply_cardIssuerCountry
- ccAuthReply_cardLevel3Eligible
- ccAuthReply_cardPayroll
- ccAuthReply_cardPINlessDebit
- ccAuthReply_cardPrepaid
- ccAuthReply_cardRegulated
- ccAuthReply_cardSignatureDebit

The CTI fields are described in Appendix A, "API Fields," on page 232.

Cash Advances

Services:

■   Authorization

■   Capture

Processors:

■   Barclays

■   LloydsTSB Cardnet

A cash advance enables a customer to use a credit card to purchase foreign currency or travelers checks. The currency the customer uses to fund the transactions must be British pounds.

Before processing cash advances, you must:

■   Contact the processor to obtain an agreement to process cash advance transactions.

■   Contact CyberSource Customer Support to have your account configured for this feature. You must have a separate CyberSource merchant ID that you use only for cash advance transactions.

Process a cash advance transaction the same way you process a regular credit card transaction: with an authorization and a capture.

> You cannot process a cash advance and airline data in the same transaction.
>
> **Important**

Customer Profiles

See "Payment Tokenization," page 199.

Dynamic Currency Conversion for First Data

Services:

■   Authorization

■   Capture

■   Credit

Processors:

■   FDC Nashville Global

■   FDMS South

Card types:

■   Visa

■   Mastercard

The Dynamic Currency Conversion (DCC) service converts a foreign cardholder's purchase from your local currency to the cardholder's billing currency. This service can help you improve or create business relationships with customers who prefer to make purchases in their own currency.

Requirements and Limitations

The requirements for using the DCC service are:

■   Your local currency must be USD.

■   You must contact CyberSource Customer Support to have your account configured for this feature.

■   You must provide the customer with a receipt showing the US Dollar amount, the foreign currency amount, and the rate of exchange used to convert the transaction. You must also have the customer sign an acknowledgement that the customer had a choice to pay in US Dollars and that the choice of currency is final.

> **Note**   Partial authorizations cannot be performed with the DCC service.

When requesting the DCC service, do not request any of these services in the same request message:

- Tax calculation
- Authorization
- Capture
- Credit

Do not use Level II or Level III processing with DCC.

⚠️ **Important**	For DCC transactions, USD is the only supported currency for full authorization reversals. You can reverse an authorization when the DCC indicator is 2 or 3 because these values indicate that the transaction was in USD. When you request a full authorization reversal when the DCC indicator is 1, which indicates that the transaction was in a foreign currency, the reversed amount is incorrect.

Terminology

Table 32   DCC Terminology

Term	Definition
Billing currency or Cardholder billing currency	Cardholder's currency in which their card is denominated and in which transactions are posted to the cardholder's account.
Converted amount	Amount of the transaction, denominated in the cardholder's billing currency.
DCC disclosure	Legally required message that a customer must agree to before DCC can be used for the transaction. A typical message is "I acknowledge that I was offered a choice of currencies in which to perform this transaction and I understand that this choice is final."
Exchange rate or DCC exchange rate	Conversion factor used to convert an original amount to a converted amount.
Local currency or Merchant local currency	Your selling currency that you use for pricing your goods and in which you usually submit transactions for processing.
Original amount	Amount of the transaction, denominated in your local currency.
Prefix or Account prefix	First 6 to 10 digits of a Visa or Mastercard credit card number.

Using DCC

Step 1 Request the DCC service:

a Include the statement `ccDCCService_run=true` in your request.

b Include the required DCC fields in your request:
- card_accountNumber: first 6 to 10 digits of the credit card number
- item_#_unitPrice: original amount
- merchantID
- merchantReferenceCode
- purchaseTotals_currency: local currency

c Receive the DCC reply fields:
- ccDCCReply_dccSupported: flag that indicates whether DCC is supported for this transaction
- ccDCCReply_marginRatePercentage: currency selection fee
- purchaseTotals_exchangeRate: exchange rate
- purchaseTotals_exchangeRateTimeStamp: exchange rate timestamp
- purchaseTotals_foreignAmount: converted amount
- purchaseTotals_foreignCurrency: converted currency code

Step 2 If necessary, handle a lack of availability.

If the purchase is not eligible for DCC or DCC processing is not available, proceed with the transaction in your local currency:

- In your transaction requests (authorization, capture, credit), include the DCC indicator set to 2, which indicates that the transaction amount could not be converted.

- Do not perform the rest of this procedure.

Step 3   Query the customer.

If the purchase is eligible for DCC, you must get permission from the customer before you can proceed:

a   Explain to your customer that the transaction is a candidate for DCC.

b   Display the required DCC information to the customer. Contact your acquirer for these requirements.

c   Ask your customer if they would like to complete the transaction in their billing currency.

> ⚠️ **Important**   Before you can use DCC for a purchase, the cardholder must opt in to the process and explicitly choose to have the purchases subjected to DCC. Because of this requirement, you cannot use DCC for recurring payments or a recurring subscription.

Step 4   If necessary, proceed in the local currency.

If the customer does not opt in, proceed with the transaction in your local currency:

■   In your transaction requests (authorization, capture, credit), include the DCC indicator set to 3, which indicates that the cardholder declined the currency conversion.

■   Continue with this procedure.

Step 5   Authorize the payment.

The following table lists the DCC fields required for the authorization, capture, and credit services. These request field names are the same as the names of the DCC service reply fields.

Table 33   DCC Fields Required for the Authorization, Capture, and Credit Services

Request Field for the Authorization, Capture, and Credit Services	Reply Field for the DCC Service	Value
dcc_dccIndicator	No corresponding field.	DCC indicator: If the customer opted in, set the indicator to 1. If the customer did not opt in, set the indicator to 3.
purchaseTotals_exchangeRate	purchaseTotals_exchangeRate	Exchange rate
purchaseTotals_ exchangeRateTimeStamp	purchaseTotals_ exchangeRateTimeStamp	Exchange rate timestamp
purchaseTotals_foreignAmount	purchaseTotals_foreignAmount	Converted amount
purchaseTotals_foreignCurrency	purchaseTotals_ foreignCurrency	Converted currency code

Step 6   Display DCC information.

If the customer opted in, notify your customer that the transaction was successfully authorized and display required DCC information to the customer.

Step 7   Capture the authorization.

If DCC data was included in the authorization request, then DCC data must be included in the capture request:

- If the capture amount is the same as the authorization amount, submit a capture request that includes the same DCC values that were included in the authorization request.

- If the capture amount is different from the authorization amount, call the DCC service with the capture amount and then submit a capture request that includes the new DCC values.

Step 8   Optional: credit the payment.

If DCC data was included in the capture request, then DCC data must be included in the credit request:

- If this is a follow-on credit and if the credit amount is the same as the capture amount, submit a credit request that includes the same DCC values that were included in the capture request.

- If this is a follow-on credit and if the credit amount is different from the capture amount, call the DCC service with the credit amount and then submit a credit request that includes the new DCC values.

- If this is a stand-alone credit, call the DCC service with the credit amount and then submit a credit request that includes the new DCC values.

> **Note**   If the customer did not opt in, use the DCC values you already obtained.

Step 9   View the transaction results.

If the customer opted in, you can see the following DCC values in the transaction results that are displayed on the Business Center:

- Original amount
- Converted amount
- Exchange rate

You can also see the DCC values in the XML version of the Payment Submission Detail Report. For a description of this report, see the *Reporting Developer Guide*.

	DCC values are only in the XML version of the Payment Submission Detail Report. To see these values, you must subscribe to the Payment Submission Detail Report.
! **Important**	

Additional Information

For descriptions of the required fields and to see which fields are optional, see .

Encoded Account Numbers

Services:

- Authorization
- Credit

Processor:

- Chase Paymentech Solution's Credit Card Encryption program

Depending on your type of business, you might be eligible to acquire from an issuing bank a list of the customers who have credit cards issued by that bank. The list does not include the customers' credit card numbers, but instead includes encoded account numbers. Some processors refer to this type of program as issuer encryption and to the numbers as encrypted account numbers. This type of program is designed to protect customer information according to the provisions of the Gramm-Leach-Bliley Act.

When processing a payment or credit for one of these customers, you use the encoded account number instead of the customer's credit card number. The issuing bank then matches the encoded account number to the customer's credit card number when processing the payment.

You must contact your processor to obtain the information required for the Credit Card Encryption program and you must have a relationship with the bank in order to acquire their list of customers.

Final Authorization Indicator

Service:

■   Authorization

Processors:

■   Barclays

■   Chase Paymentech Solutions—Mastercard and Maestro (International) only. Chase Paymentech Solutions does not support this feature for Maestro (UK Domestic).

■   CyberSource through VisaNet

■   Elavon

■   FDC Nashville Global

■   GPN

■   HBoS

■   HSBC

■   Lloyds-OmniPay

■   LloydsTSB Cardnet

■   OmniPay Direct. The supported acquirers are:

●   Bank of America Merchant Services

●   First Data Merchant Solutions (Europe)

●   Global Payments International Acquiring

■   OmniPay-Ireland—Mastercard only. OmniPay-Ireland does not support Maestro (International) or Maestro (UK Domestic).

■   Streamline

■   TSYS Acquiring Solutions

Card types:

■   Mastercard

■   Maestro (International)

■   Maestro (UK Domestic)

This feature supports a mandate from Mastercard. The purpose of the mandate is to prevent a customer's funds from being unavailable when there is a risk that the order will not be fulfilled.

Europe, Russia, Middle East, and Africa

For an authorization with an amount greater than 0 (zero), Mastercard recommends that you indicate whether the authorization is a final authorization or a preauthorization.

Final Authorizations

For a final authorization:

■   Authorization amount is greater than zero.

■   Authorization amount is the final amount that the customer agrees to pay.

■   Authorization cannot be cancelled after it is approved except when a system failure occurs.

■   Authorization must be submitted for capture within seven calendar days of its request.

■   Capture amount and currency must be the same as the authorization amount and currency.

■   Chargeback protection is in effect for seven days following the authorization.

Preauthorizations

For a preauthorization:

■   Authorization amount is greater than zero.

■   Authorization amount can be an estimate when the final amount is unknown, which is typical for hotel, auto rental, e-commerce, and restaurant transactions.

■   Authorization must be submitted for capture within 30 calendar days of its request.

■   If you do not capture the authorization, you must reverse it.

■   Chargeback protection is in effect for 30 days following the authorization.

	Mastercard charges fees for preauthorizations.
Note	

To indicate whether an authorization is a final authorization or a preauthorization:

Step 1   Include the **authIndicator** field in your authorization request. See "Request Fields," page 234, for the field description.

Step 2   For a final authorization on CyberSource through VisaNet, your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

On Chase Paymentech Solutions and FDC Nashville Global, the **authIndicator** field is included in the reply message.

U.S., Canada, Latin America, and Asia Pacific

For an authorization with an amount greater than 0 (zero), Mastercard recommends that you indicate whether the authorization is a final authorization, a preauthorization, or an undefined authorization.

Final Authorizations

For a final authorization:

■   Authorization amount is greater than zero.

■   Authorization amount is the final amount that the customer agrees to pay.

■   Authorization cannot be cancelled after it is approved except when a system failure occurs.

■   Authorization must be submitted for capture within seven calendar days of its request.

■   Capture amount and currency must be the same as the authorization amount and currency.

■   Chargeback protection is in effect for seven days following the authorization.

Preauthorizations

For a preauthorization:

■   Authorization amount is greater than zero.

■   Authorization amount can be an estimate when the final amount is unknown, which is typical for hotel, auto rental, e-commerce, and restaurant transactions.

■   Authorization must be submitted for capture within 30 calendar days of its request.

■   If you do not capture the authorization, you must reverse it; otherwise, Mastercard charges an additional fee for the transaction.

■   Chargeback protection is in effect for 30 days following the authorization.

Undefined Authorizations

> ⚠️ **Important**
>
> Undefined authorizations are not supported on Chase Paymentech Solutions nor FDC Nashville Global.

For an undefined authorization:

■   Authorization amount is greater than zero.

■   Authorization amount can be different from the final transaction amount.

■   Authorization cannot be cancelled after it is approved except when a system failure occurs.

■   Authorization must be submitted for capture within seven calendar days of its request.

■   If you do not capture the authorization, you must reverse it; otherwise, Mastercard charges an additional fee for the transaction.

■   Chargeback protection is in effect for seven days following the authorization.

> ✏️ **Note**
>
> An authorization is undefined when you set the default authorization type in your CyberSource account to `undefined` and do not include the **authIndicator** field in the authorization request. To set the default authorization type in your CyberSource account, contact CyberSource Customer Support.

Unmarked Authorizations

> ⚠️ **Important**
>
> Unmarked authorizations are supported only on Chase Paymentech Solutions and FDC Nashville Global.

For an unmarked authorization:

- CyberSource does not set a mark or indicator for the type of authorization in the request that is sent to the processor.

- Authorization amount is greater than zero.

- Authorization amount can be different from the final transaction amount.

- Your acquirer processes an unmarked authorization as a final authorization, a preauthorization, or an undefined authorization. Contact your acquirer to find out how they process unmarked authorizations.

> 📝 **Note**
>
> An authorization is unmarked when the default authorization type is not set in your CyberSource account and you do not include the **authIndicator** field in the authorization request. To set the default authorization type in your CyberSource account, contact CyberSource Customer Support.

To indicate whether an authorization is a final authorization or a preauthorization:

Step 1   Include the **authIndicator** field in your authorization request. See "Request Fields," page 234, for the field description.

Step 2   For a final authorization on CyberSource through VisaNet, your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

On Chase Paymentech Solutions and FDC Nashville Global, the **authIndicator** field is included in the reply message.

Forced Captures

Service:

- Authorization

Processors:

- AIBMS
- American Express Direct
- Asia, Middle East, and Africa Gateway
- CCS (CAFIS)
- Chase Paymentech Solutions
- CyberSource through VisaNet. The supported acquirer is:
  - CTBC Bank Ltd.
- FDC Nashville Global
- FDMS Nashville
- FDMS South
- GPN
- JCN Gateway
- OmniPay Direct. The supported acquirers are:
  - Bank of America Merchant Services
  - First Data Merchant Solutions (Europe)
  - Global Payments International Acquiring
- TSYS Acquiring Solutions

Note Forced captures are not supported for Comercio Latino and CyberSource Latin American Processing.

CyberSource Latin American Processing is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this note is for the specific processing connections called *Comercio Latino* and *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.

A forced capture occurs when you process an authorization outside the CyberSource system but then capture the order through CyberSource.

To perform a forced capture:

After you process the authorization outside the CyberSource system, request the CyberSource authorization and capture services at the same time as described in "Creating an Authorization Request," page 34, and "Creating a Capture Request," page 50:

- Include the request fields that are required for the authorization.
- Include these fields in the request:

  `ccAuthService_authType=VERBAL`

  `ccAuthService_verbalAuthCode=` the authorization code you received in the response for the authorization that was processed outside the CyberSource system

- No additional fields are required for the capture.

For the American Express card type on FDMS South, you must include the **ccCaptureService_posData** and **ccCaptureService_transactionID** fields in the capture request to support the CAPN requirements. Obtain the values for these fields from the response for the authorization that was processed outside the CyberSource system.

Guaranteed Exchange Rates

See "Multi-Currency Service," page 183.

Installment Payments

Services:

- Authorization
- Capture—only on CyberSource through VisaNet with American Express or on FDC Nashville Global

Processors and card types:

- See the following table.

Table 34   Processors That Support Installment Payments

Processors	Credit Card Types
American Express Direct	American Express
	See "Installment Payments on American Express Direct," page 130.
Chase Paymentech Solutions	Visa
	See "Installment Payments on Chase Paymentech Solutions and FDC Compass," page 132.
Cielo	Visa, Mastercard, American Express, Diners Club, JCB, Elo, Aura
	On Cielo, installment payments are not supported for debit transactions.
	See "Installment Payments on Processors in Latin America," page 134.
Comercio Latino	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard
	To enable installment payments, contact CyberSource Customer Support to have your account configured for this feature. On Comercio Latino, the acquirer Banorte requires installment payments be submitted as an automatic capture. See "Automatic Captures," page 33.
	See "Installment Payments on Processors in Latin America," page 134.
CyberSource Latin American Processing	Visa
	See "Installment Payments on Processors in Latin America," page 134.
	Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.

Table 34   Processors That Support Installment Payments (Continued)

Processors	Credit Card Types
CyberSource through VisaNet	Visa, American Express
	Note Not all card types are supported for all acquirers.
	The supported acquirers are:
	• Arab African International Bank (AAIB)
	• Asia Commercial Bank (ACB)
	• Auckland Savings Bank (ASB)
	• Australia and New Zealand Banking Group Limited (ANZ)
	• Axis Bank Ltd. of India
	• Banco Nacional de México (Banamex)
	• Bangkok Bank Ltd.
	• Bank of Ayudhya (BAY)
	• Bank of China (BOC)
	• Banque Pour Le Commerce Exterieur Lao (BCEL)
	• Citibank Hongkong and Macau
	• Commercial Bank of Qatar
	• CrediMax (Bahrain)
	• CTBC Bank Ltd.
	• Habib Bank Ltd. (HBL)
	• HDFC Bank Ltd. of India
	• Mashreq
	• National Bank of Abu Dhabi (NBAD)
	• Overseas Chinese Banking Corp (OCBC)
	• United Overseas Bank (UOB) in Singapore and Vietnam
	• United Overseas Bank (UOB) in Thailand
	• Vantiv
	• Vietcombank
	• VietinBank
	• Wing Hang Bank
	• Wing Lung Bank
	See "Issuer-Funded Installment Payments on CyberSource through VisaNet," page 132, and "Merchant-Funded Installment Payments on CyberSource through VisaNet," page 133.

Table 34 Processors That Support Installment Payments (Continued)

Processors	Credit Card Types
FDC Compass	Visa
	See "Installment Payments on Chase Paymentech Solutions and FDC Compass," page 132.
FDC Nashville Global	Visa, Discover, Diners Club, JCB (US Domestic)
	For JCB cards, "US Domestic" means that the currency is USD and your location is the U.S., Puerto Rico, Guam, U.S. Virgin Islands, or Northern Mariana Islands.
	"Installment Payments on FDC Nashville Global," page 134.
FDMS Nashville	Visa
	See "Installment Payments on Other Processors," page 136.
FDMS South	Visa
	See "Installment Payments on Other Processors," page 136.
Litle	Visa
	See "Installment Payments on Other Processors," page 136.
OmniPay-Ireland	Visa
OmniPay-Ireland is the CyberSource name for HSBC International.	See "Installment Payments on Other Processors," page 136.
TSYS Acquiring Solutions	Visa
	See "Installment Payments on Other Processors," page 136.

Installment Payments on American Express Direct

The customer pays for goods or services using an installment plan agreed upon by the customer and you. The following table describes the types of installment payments that American Express Direct supports.

Table 35 Types of Installment Payments on American Express Direct

Type of Installment Payments	Features
Issuer installments American Express calls this arrangement a *deferred payment plan*.	■ You send one transaction to American Express. ■ American Express charges the amount to the cardholder in installments. ■ You receive one payment from American Express.
Merchant installments American Express calls this arrangement *Plan N*.	■ You send one transaction to American Express. ■ American Express charges the amount to the cardholder in installments. ■ You receive payment from American Express in installments.

The following table lists the countries and regions for which CyberSource supports installment payments on American Express Direct.

Table 36   Country-Specific Information for Installment Payments on American Express Direct

Country or Region	Notes
Argentina	■ Issuer installments and merchant installments are supported. ■ The currency for your installment transactions must be ARS.
Asia Pacific	■ Only issuer installments are supported. Merchant installments are not supported.
Australia	■ Only issuer installments are supported. Merchant installments are not supported.
Mexico	■ Issuer installments and merchant installments are supported. ■ The currency for your installment transactions must be MXN. ■ The purchase amount must be 250 MXN or more.

⚠ **Important**   If you submit an installment transaction that does not meet the American Express Direct requirements for installment payments, American Express Direct processes the transaction as a regular, non-installment transaction.

Before submitting installment transactions:

■ Contact American Express Direct to have your account configured for this feature.

■ Contact CyberSource Customer Support to have your account configured for this feature.

To indicate that a transaction on American Express Direct is an installment payment:

Step 1   You must include the **installment_totalCount** field in your authorization request.

Step 2   You can include the optional **ccAuthService_commerceIndicator** field in your authorization request. Set it to any valid value except `recurring` or `recurring_internet`. For information about the commerce indicator values, see Appendix G, "Commerce Indicators," on page 387.

Step 3   You must include the **installment_planType** field in your authorization request if the corresponding value is not set in your CyberSource account. If this value is set in your CyberSource account, you can include the field in your authorization request to override the value in your CyberSource account.

For information about these fields, see Appendix A, "API Fields," on page 232.

Installment Payments on Chase Paymentech Solutions and FDC Compass

The customer pays for goods or services using an installment plan agreed upon by the customer and you.

To indicate that a transaction on Chase Paymentech Solutions or FDC Compass is an installment payment:

Step 1 Set **ccAuthService_commerceIndicator** to `install`.

Step 2 Include the following required fields in your authorization request:

- invoiceHeader_merchantDescriptor
- invoiceHeader_merchantDescriptorContact

For information about these fields, see "Chase Paymentech Solutions Merchant Descriptors," page 145, and "FDC Compass Merchant Descriptors," page 156.

Step 3 You can include the following optional fields in your authorization request:

- installment_sequence
- installment_totalCount

For information about these fields, see Appendix A, "API Fields," on page 232.

Issuer-Funded Installment Payments on CyberSource through VisaNet

The customer pays for goods or services using an installment plan agreed upon by the customer and the issuing bank.

To indicate that a transaction on CyberSource through VisaNet is an installment payment with Visa, Mastercard, or American Express:

Step 1 You can include the optional **issuer_additionalData** field in your authorization request.

For information about this field, see Appendix A, "API Fields," on page 232.

Merchant-Funded Installment Payments on CyberSource through VisaNet

The customer pays for goods or services using an installment plan agreed upon by the customer and you.

To indicate that a transaction on CyberSource through VisaNet is a merchant-funded installment payment with American Express:

Step 1 Include **installment_planType** or **installment_totalCount** in your authorization or capture request.

For information about these fields, see Appendix A, "API Fields," on page 232.

To indicate that a transaction on CyberSource through VisaNet is a merchant-funded installment payment with Visa:

Step 1 Set **ccAuthService_commerceIndicator** to `install` or `install_internet`:
- `install`—U.S. transaction or non-U.S. mail order / telephone order (MOTO) transaction
- `install_internet`—non-U.S. e-commerce (internet) transaction

Step 2 Your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

Step 3 You can include the following optional fields in your authorization request:
- installment_amount
- installment_frequency
- installment_sequence
- installment_totalAmount
- installment_totalCount

For information about these fields, see Appendix A, "API Fields," on page 232.

Installment Payments on FDC Nashville Global

The customer pays for goods or services using an installment plan agreed upon by the customer and you.

To indicate that a transaction on FDC Nashville Global is an installment payment:

Step 1 When you request the authorization service, set **ccAuthService_commerceIndicator** to `install`.

Step 2 When you request the capture service, include the following required fields in the request:
- installment_sequence
- installment_totalCount

For information about these fields, see Appendix A, "API Fields," on page 232.

Installment Payments on Processors in Latin America

The customer pays for goods or services using an installment plan agreed upon by the customer and you.

Before submitting installment transactions, contact CyberSource Customer Support to have your account configured for this feature.

To indicate that a transaction on Cielo or Comercio Latino is an installment payment:

Step 1 You must include the **installment_totalCount** field in your authorization request.

Step 2 You can include the optional **ccAuthService_commerceIndicator** field in your authorization request. Set it to one of the following values:

- `install`—U.S. transaction or non-U.S. mail order / telephone order (MOTO) transaction

- `internet`—e-commerce transaction. This is the default value that CyberSource uses when you do not include the commerce indicator field in the request.

- `spa`—Mastercard SecureCode transaction.

- `vbv`—Verified by Visa transaction.

Step 3   You must include the **installment_planType** field in your authorization request if the corresponding value is not set in your CyberSource account. If this value is set in your CyberSource account, you can include the field in your authorization request to override the value in your CyberSource account.

For information about these fields, see Appendix A, "API Fields," on page 232.

To indicate that a transaction on CyberSource Latin American Processing is an installment payment:

Note *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this section is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.

Step 1   Set **ccAuthService_commerceIndicator** to `install`.

Step 2   For a transaction in Brazil, you can include the following optional fields in your authorization request:

- installment_planType
- installment_totalCount

For information about these fields, see Appendix A, "API Fields," on page 232.

Step 3   For a transaction in Mexico, installment payments are supported, but conditions vary, so contact CyberSource Customer Support or your CyberSource account manager.

Installment Payments on Other Processors

The customer pays for goods or services using an installment plan agreed upon by the customer and you.

To indicate that a transaction on any other supported processor is an installment payment:

Step 1   Set **ccAuthService_commerceIndicator** to `install`.

Step 2   Include the following required fields in your authorization request:
- installment_sequence
- installment_totalCount

For information about these fields, see Appendix A, "API Fields," on page 232.

Japanese Payment Options

Services:
- Authorization
- Capture
- Credit

Processors:
- CCS (CAFIS)
- JCN Gateway

Card types:
- Visa
- Mastercard
- American Express
- Diners Club
- JCB
- NICOS house card
- ORICO house card

In addition to standard single payments, Japanese acquirers support the following payment options:

- Bonus payment
- Installment payments (2 to 36 payments)
- Revolving repayments

Before using one of these payment options, you must sign a contract with your acquirer. Additionally, the funding cycle could differ when using these options. Contact your account provider for details about contracts and funding cycles.

Some acquirers might not support all of these payment options. Additionally, a card holder must sign a contract with an issuing bank before using one of these payment options. Therefore, not all card holders take advantage of these payment options. Confirm payment option availability with your account provider and the card holder before implementing one of these payment options.

> ⚠️ **Important**
> CyberSource accepts requests with these payment options independently of your agreements with acquirers. If you submit a request with one of these payment options but do not have the necessary contracts and agreements in place, an error might not occur until the acquirer processes the settlement file, which usually occurs only once a month.

The following table lists the API fields required for each payment option.

Table 37   API Fields for Japanese Payment Options

Payment Option	API Fields Required
Bonus payment	jpo_paymentMethod
Installment payments (2 to 36 payments)	jpo_paymentMethod, jpo_installments
Revolving repayments	jpo_paymentMethod

When you omit **jpo_paymentMethod** from your request, CyberSource processes the request as a single payment.

Verbal Authorizations

When you submit a capture request with a verbal authorization, if the initial authorization included Japanese payment option fields, the capture request also must include the Japanese payment option fields.

Stand-Alone Credits

When you perform a stand-alone credit for a transaction that included Japanese payment option fields, the request for the stand-alone credit must also include the Japanese payment option fields. When a request for a stand-alone credit is made with CCS (CAFIS) or JCN Gateway, most acquirers make inquiries about the purpose of such a request. CyberSource recommends using follow-on credits instead of stand-alone credits whenever possible.

Additional Information

For more information about the Japanese payment options, contact Customer Support of CyberSource KK (Japan).

JCB J/Secure

See "Payer Authentication," page 184.

Level II Data

See *Level II and Level III Processing Using the Simple Order API*.

Level III Data

See *Level II and Level III Processing Using the Simple Order API*.

Mastercard SecureCode

See "Payer Authentication," page 184.

Masterpass

Services:

■   Authorization

■   Credit—Chase Paymentech Solutions and CyberSource through VisaNet only

Processors:

■   Chase Paymentech Solutions

■   CyberSource through VisaNet

■   OmniPay Direct. The supported acquirers are:

●   Bank of America Merchant Services

●   First Data Merchant Solutions (Europe)

To indicate that a request is for a Masterpass transaction:

Before requesting Masterpass transactions, contact CyberSource Customer Support to have your account configured for this feature.

On Chase Paymentech Solutions or CyberSource through VisaNet, include the **wallet_ type** field in your authorization or credit request.

On OmniPay Direct, include the following fields in your authorization request:

■   wallet_type

■   paymentSolution

For details about these fields, see Appendix A, "API Fields," on page 232.

Merchant Descriptors

Processors:

- "AIBMS Merchant Descriptors," page 140
- "American Express Direct Merchant Descriptors," page 141
- "Chase Paymentech Solutions Merchant Descriptors," page 145
- "Cielo Merchant Descriptors," page 148
- "Comercio Latino Merchant Descriptors," page 149
- "CyberSource through VisaNet Merchant Descriptors," page 149
- "Elavon Merchant Descriptors," page 155
- "FDC Compass Merchant Descriptors," page 156
- "FDC Nashville Global Merchant Descriptors," page 160
- "FDMS South Merchant Descriptors," page 165
- "Ingenico ePayments Merchant Descriptors," page 167
- "GPN Merchant Descriptors," page 166
- "Litle Merchant Descriptors," page 168
- "OmniPay Direct Merchant Descriptors," page 171
- "OmniPay-Ireland Merchant Descriptors," page 173
- "Streamline Merchant Descriptors," page 175
- "TSYS Acquiring Solutions Merchant Descriptors," page 176

AIBMS Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests, check with your bank to find out whether you must pre-register your merchant descriptor information with them.

AIBMS supports the merchant descriptors listed in the following table.

Table 38   Merchant Descriptor Fields for AIBMS

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)
invoiceHeader_ merchantDescriptor Contact	Merchant contact information, such as a phone number, that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (13)

American Express Direct Merchant Descriptors

Services:

- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

- Contact American Express Direct to register to use merchant descriptors.
- Contact CyberSource Customer Support to have your account configured for this feature.

American Express Direct supports the merchant descriptors listed in the following table. Even though the following fields are supported, American Express Direct does not always include all these fields on the cardholder's statement.

Table 39   Merchant Descriptor Fields for American Express Direct

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. American Express displays this value on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1] When you include the merchant descriptor contact field in your request, you must provide a merchant descriptor in this field or in your CyberSource account. When you do not include the merchant descriptor contact in your request, the merchant descriptor is optional. ***Aggregator Merchants*** If you are an aggregator, see "Aggregator Support," page 101, for information about merchant descriptors for aggregator merchants.	ccCaptureService ccCreditService See the description.	String (27)
invoiceHeader_ merchantDescriptorCity	City or phone number for your business. American Express might display this value on the cardholder's statement. For card-present transactions, American Express recommends that this field contain the city in which your business is located. For card-not-present transactions, American Express recommends that this field contain the phone number for your business. It should be a toll free number or a local number. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	String (21)

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

Table 39 Merchant Descriptor Fields for American Express Direct (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Contact	Contact information for your business. American Express might display this value on the cardholder's statement. This value could be used to resolve billing inquiries and disputes. When you include more than one consecutive space, extra spaces are removed. For card-present transactions, American Express recommends that this field contain your phone number. For card-not-present transactions, American Express recommends that this field contain the URL for your web site. When you do not include this value in your request, CyberSource uses the URL or phone number in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	String (40)
invoiceHeader_ merchantDescriptor Country	Country code for your business location. American Express might display this value on the cardholder's statement. Use the standard *ISO Standard Country Codes*. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	String (2)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location. American Express might display this value on the cardholder's statement. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1] Before sending the postal code to the processor, CyberSource removes all non-alphanumeric characters and, if the remaining value is longer than nine characters, truncates the value starting from the right side.	ccCaptureService (O) ccCreditService (Required when you are an aggregator; otherwise, optional)	String (15)

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

Table 39   Merchant Descriptor Fields for American Express Direct (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor State	State code or region code for your business location. American Express might display this value on the cardholder's statement. For the U.S. and Canada, use the standard *State, Province, and Territory Codes for the United States and Canada*. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	String (3)
invoiceHeader_ merchantDescriptor Street	Street address for your business location. American Express might display this value on the cardholder's statement. If the street address is more than 38 characters, use meaningful abbreviations. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (Required when you are an aggregator; otherwise, optional)	String (38)

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

Chase Paymentech Solutions Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

> **Note**
>
> Chase Paymentech Solutions restricts the number of merchant descriptors you can use.

Before including merchant descriptors in your requests:

- Prepare a list of the merchant descriptors you plan to use.
- Contact Chase Paymentech Solutions for information about working with merchant descriptors.
- Contact CyberSource Customer Support to have your account enabled for this feature.

Chase Paymentech Solutions supports the merchant descriptors described in "API Fields," page 147. The information in that section supersedes the information in Appendix A, "API Fields," on page 232.

Merchant Descriptor Logic

> **Important**
>
> Some of the logic described in this section might not apply to your implementation depending on which parts of the merchant descriptor functionality are enabled in your CyberSource account.

The logic described in this section applies to the **invoiceHeader_merchantDescriptor** and **invoiceHeader_merchantDescriptorContact** fields. It does not apply to the Transaction Advice Addendum (TAA) fields.

For authorizations, CyberSource provides merchant descriptor information to Chase Paymentech Solutions only if you include merchant descriptor information in the authorization request.

For captures, CyberSource provides merchant descriptor information to Chase Paymentech Solutions if you provide merchant descriptor information in the capture request, authorization request, or your CyberSource account. When you do not include the merchant descriptor values in a capture request, CyberSource uses the values from

the authorization request. If you did not include the merchant descriptor values in the authorization request, CyberSource uses the corresponding values from your CyberSource account.

For follow-on credits, CyberSource provides merchant descriptor information to Chase Paymentech Solutions if you provide merchant descriptor information in the credit request, capture request, authorization request, or your CyberSource account. When you do not include the merchant descriptor values in a follow-on credit request, CyberSource uses the values from the capture request. If you did not include the merchant descriptor values in the capture request, CyberSource uses the values from the authorization request. If you did not include the merchant descriptor values in the authorization request, CyberSource uses the corresponding values from your CyberSource account.

For stand-alone credits, CyberSource provides merchant descriptor information to Chase Paymentech Solutions if you provide merchant descriptor information in the credit request or your CyberSource account. When you do not include the merchant descriptor values in a stand-alone credit request, CyberSource uses the corresponding values from your CyberSource account.

To add a merchant descriptor value to your CyberSource account, contact CyberSource Customer Support.

Characters

In the merchant descriptor fields, question marks are replaced with spaces.

Do not use the following punctuation characters in the merchant descriptor fields because they will cause the transaction to be rejected with reason code 233:

- caret (^)
- backslash (\ )
- open bracket ([ )
- close bracket ( ])
- tilde (~)
- accent (`)

API Fields

Table 40   Merchant Descriptor Fields for Chase Paymentech Solutions

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ amexDataTAA1 invoiceHeader_ amexDataTAA2 invoiceHeader_ amexDataTAA3 invoiceHeader_ amexDataTAA4	Four Transaction Advice Addendum (TAA) fields. These fields are used to display descriptive information about a transaction on the customer's American Express card statement. When you send TAA fields, start with **invoiceHeader_amexDataTAA1**, then **...TAA2**, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. These fields are frequently used for Level II transactions. See *Level II and Level III Processing Using the Simple Order API*.	ccCaptureService (O) ccCreditService (O)	String (40)
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. For an installment transaction, you must use one of the following formats: ■ <12-character merchant name>*PYMT<N> OF<M> ■ <7-character merchant name>*PYMT<N> OF<M> ■ <3-character merchant name>*PYMT<N> OF<M> where <N> is the payment number and <M> is the total number of payments. For example, for the third installment in a series of seven payments, the PYMT<N>OF<M> portion of the merchant descriptor would be PYMT3OF7. For other types of transactions, you must use one of the following formats: ■ <12-character merchant name>* <9-character product description> ■ <7-character merchant name>* <14-character product description> ■ <3-character merchant name>* <18-character product description> This field is supported only for Visa, Mastercard, and Discover.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)

Table 40   Merchant Descriptor Fields for Chase Paymentech Solutions (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Contact	Merchant contact information, such as a phone number, that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. You must use one of the following formats: ■ PCCCCCCCCCCCC ■ NNN-NNN-NNNN ■ NNN-NNN-NAAA ■ NNN-NNN-AAAA ■ NNN-AAAAAAA where: ■ A: Alphanumeric (alpha or numeric) ■ C: Character (alpha or blank) ■ N: Numeric ■ P: Alpha This field is supported only for Visa, Mastercard, and Discover.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor** is included in the request.	String (13)

Cielo Merchant Descriptors

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Services:

■ Authorization

Table 41   Merchant Descriptor Fields for Authorizations for Cielo

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you do not include this value in your authorization request, CyberSource uses the value from your CyberSource account.	ccAuthService (O)	String (13)

Comercio Latino Merchant Descriptors

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Services:

■ Authorization

	The merchant descriptor field is passed only to the Cielo acquirer.
Note	

Table 42 Merchant Descriptor Fields for Authorizations for Comercio Latino

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you do not include this value in your authorization request, CyberSource uses the value from your CyberSource account.	ccAuthService (O)	String (13)

CyberSource through VisaNet Merchant Descriptors

Services:

■ Authorization

■ Capture

■ Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

	Before using merchant descriptors in your requests, check with your bank to find out if you must pre-register your merchant descriptor information with them.
! **Important**	

CyberSource through VisaNet supports the merchant descriptors shown in Table 43, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 150, for authorizations, and the merchant descriptors shown in Table 44, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 152 for captures and credits.

CyberSource always provides merchant descriptor information to the acquirer for all your authorization, capture, and credit transactions. The field descriptions in the following two tables describe the values that CyberSource uses when you do not include merchant descriptor information in your requests.

Table 43   Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your authorization request, CyberSource uses the merchant name from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O)	String (23)
invoiceHeader_ merchantDescriptorCity	City for your business location. This value might be displayed on the cardholder's statement. When you do not include this value in your authorization request, CyberSource uses the merchant city from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O)	String (13)
invoiceHeader_ merchantDescriptor Contact	Telephone number for your business. This value might be displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your authorization request, CyberSource uses the merchant phone number from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O)	String (14)

**Table 43   Merchant Descriptor Fields for Authorizations for
CyberSource through VisaNet (Continued)**

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Country	Country code for your business location. Use the standard *ISO Standard Country Codes*. This value might be displayed on the cardholder's statement. When you do not include this value in your authorization request, CyberSource uses the merchant country from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O)	String (2)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location. This value might be displayed on the cardholder's statement. If your business is domiciled in the U.S., you can use a 5-digit or 9-digit postal code. A 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 If your business is domiciled in Canada, you can use a 6-digit or 9-digit postal code. A 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] **Example** A1B 2C3 When you do not include this value in your authorization request, CyberSource uses the merchant postal code from your CyberSource account. **Important** This value must consist of English characters. **Important** Mastercard requires a postal code for any country that uses postal codes. You can provide the postal code in your CyberSource account or you can include this field in your request.	ccAuthService (O)	String (14)

Table 43   Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor State	State code or region code for your business location. This value might be displayed on the cardholder's statement. For the U.S. and Canada, use the standard *State, Province, and Territory Codes for the United States and Canada*. When you do not include this value in your authorization request, CyberSource uses the merchant state from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O)	String (3)

Table 44   Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant name from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (23)

Table 44   Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Alternate	Alternate contact information for your business, such as an email address or URL. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the merchant URL from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (13)
invoiceHeader_ merchantDescriptorCity	City for your business location. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request for a card-present transaction, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant city from your CyberSource account. When you do not include this value in your capture or credit request for a card-not-present transaction, CyberSource uses the merchant city from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (13)
invoiceHeader_ merchantDescriptor Contact	Telephone number for your business. This value might be displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant phone number from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (14)

Table 44   Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Country	Country code for your business location. Use the standard *ISO Standard Country Codes*. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant country from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (2)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location. This value might be displayed on the cardholder's statement. If your business is domiciled in the U.S., you can use a 5-digit or 9-digit postal code. A 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 If your business is domiciled in Canada, you can use a 6-digit or 9-digit postal code. A 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] **Example** A1B 2C3 When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant postal code from your CyberSource account. **Important** This value must consist of English characters. **Important** Mastercard requires a postal code for any country that uses postal codes. You can provide the postal code in your CyberSource account or you can include this field in your request.	ccCaptureService (O) ccCreditService (O)	String (14)

Table 44   Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor State	State code or region code for your business location. This value might be displayed on the cardholder's statement. For the U.S. and Canada, use the standard *State, Province, and Territory Codes for the United States and Canada*. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant state from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (3)
invoiceHeader_ merchantDescriptor Street	Street address for your business location. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the merchant street name from your CyberSource account. **Important** This value must consist of English characters.	ccCaptureService (O) ccCreditService (O)	String (60)

Elavon Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that can be displayed on a cardholder's statement.

Before including merchant descriptors in your requests, check with your bank to find out whether you must pre-register your merchant descriptor information with them.

Elavon supports the merchant descriptor described in the following table for transactions with Diners Club.

Table 45   Merchant Descriptor Field for Elavon

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. This field is supported only for Diners Club.	ccAuthService ccCaptureService ccCreditService	String (22)

FDC Compass Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Note	FDC Compass restricts the number of merchant descriptors you can use.

Before including merchant descriptors in your requests:

- Prepare a list of the merchant descriptors you plan to use.
- Contact FDC Compass for information about working with merchant descriptors.
- Contact CyberSource Customer Support to have your account enabled for this feature.

FDC Compass supports the merchant descriptors described in "API Fields," page 157. The information in that section supersedes the information in Appendix A, "API Fields," on page 232.

Characters

In the merchant descriptor fields, question marks are replaced with spaces.

Do not use the following punctuation characters in the merchant descriptor fields because they will cause the transaction to be rejected with reason code 233:

- caret (^)
- backslash (\ )
- open bracket ([ )
- close bracket ( ])
- tilde (~)
- accent (`)

API Fields

Table 46   Merchant Descriptor Fields for FDC Compass

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ amexDataTAA1 invoiceHeader_ amexDataTAA2 invoiceHeader_ amexDataTAA3 invoiceHeader_ amexDataTAA4	Four Transaction Advice Addendum (TAA) fields. These fields are used to display descriptive information about a transaction on the customer's American Express card statement. When you send TAA fields, start with **invoiceHeader_amexDataTAA1**, then **...TAA2**, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. These fields are frequently used for Level II transactions. See *Level II and Level III Processing Using the Simple Order API*.	ccCaptureService (O) ccCreditService (O)	String (40)

Table 46   Merchant Descriptor Fields for FDC Compass (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. For an installment transaction, you must use one of the following formats: ■ <12-character merchant name>*PYMT<N> OF<M> ■ <7-character merchant name>*PYMT<N> OF<M> ■ <3-character merchant name>*PYMT<N> OF<M> where <N> is the payment number and <M> is the total number of payments. For example, for the third installment in a series of seven payments, the PYMT<N>OF<M> portion of the merchant descriptor would be PYMT3OF7. For other types of transactions, you must use one of the following formats: ■ <12-character merchant name>* <9-character product description> ■ <7-character merchant name>* <14-character product description> ■ <3-character merchant name>* <18-character product description>	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)

Table 46   Merchant Descriptor Fields for FDC Compass (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Contact	Merchant contact information, such as a phone number, that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. You must use one of the following formats: ■ PCCCCCCCCCCCC ■ NNN-NNN-NNNN ■ NNN-NNN-NAAA ■ NNN-NNN-AAAA ■ NNN-AAAAAAA where: ■ A: Alphanumeric (alpha or numeric) ■ C: Character (alpha or blank) ■ N: Numeric ■ P: Alpha	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor** is included in the request.	String (13)

FDC Nashville Global Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

- Contact FDC Nashville Global to register to use merchant descriptors.
- Contact CyberSource Customer Support to have your account enabled for this feature.

FDC Nashville Global supports the merchant descriptors described in "API Fields," page 162. The information in that section supersedes the information in Appendix A, "API Fields," on page 232.

Merchant Descriptor Logic

! **Important**	Some of the logic described in this section might not apply to your implementation depending on which parts of the merchant descriptor functionality are enabled in your CyberSource account.

! **Important**	You are responsible for ensuring that all the merchant descriptor location information that CyberSource sends to the processor is compatible. For example, if a request message includes one merchant descriptor location field, CyberSource might use the information in your CyberSource account to populate the remaining merchant descriptor location values that it sends to the processor. CyberSource does not check the merchant descriptor values to ensure that the combination of values from the request message and from your CyberSource account are compatible. To avoid a mismatch of merchant descriptor location values, CyberSource recommends that you include all the merchant descriptor location fields in a request or do not include any merchant descriptor location fields in a request.

For authorizations, CyberSource provides merchant descriptor information to FDC Nashville Global only if you include merchant descriptor information in the authorization request. For each merchant descriptor, when you do not include the merchant descriptor value in an authorization request, CyberSource does not send a merchant descriptor value to FDC Nashville Global.

For captures, CyberSource provides merchant descriptor information to FDC Nashville Global if you provide merchant descriptor information in the capture request, authorization request, or your CyberSource account. For each merchant descriptor, when you do not include the merchant descriptor value in a capture request, CyberSource uses the value from the authorization request. If you did not include the merchant descriptor value in the authorization request, CyberSource uses the corresponding value from your CyberSource account. If the value is not included in your CyberSource account, FDC Nashville Global uses the value from your First Data merchant master file.

For follow-on credits, CyberSource provides merchant descriptor information to FDC Nashville Global if you provide merchant descriptor information in the credit request, capture request, authorization request, or your CyberSource account. For each merchant descriptor, when you do not include the merchant descriptor value in a follow-on credit request, CyberSource uses the value from the capture request. If you did not include the merchant descriptor value in the capture request, CyberSource uses the value from the authorization request. If you did not include the merchant descriptor value in the authorization request, CyberSource uses the corresponding value from your CyberSource account. If the value is not included in your CyberSource account, FDC Nashville Global uses the value from your First Data merchant master file.

For stand-alone credits, CyberSource provides merchant descriptor information to FDC Nashville Global if you provide merchant descriptor information in the credit request or your CyberSource account. For each merchant descriptor, when you do not include the merchant descriptor value in a stand-alone credit request, CyberSource uses the corresponding value from your CyberSource account. If the value is not included in your CyberSource account, FDC Nashville Global uses the value from your First Data merchant master file.

To add a merchant descriptor value to your CyberSource account, contact CyberSource Customer Support.

API Fields

Table 47   Merchant Descriptor Fields for FDC Nashville Global

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Business description. This value must consist of your business name. When payments are made in installments, this value must also include installment information such as "1 of 5" or "3 of 7." This value is displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) If you include this field in a request, you must also include **invoiceHeader_ merchantDescriptor Contact** and **invoiceHeader_ merchantDescriptor State**.	String (22)
invoiceHeader_ merchantDescriptor Alternate	Alternate contact information for your business, such as an email address or URL. This value might be displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160. For authorizations, CyberSource does not provide this value to the processor. Instead, CyberSource stores this value and sends it to the processor for captures and follow-on credits.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (13)
invoiceHeader_ merchantDescriptor Contact	Contact information for your business. For a card-present request, this value must be the city in which your store or outlet is located. For a card-not-present request, this value must be your customer service telephone number. When you include more than one consecutive space, extra spaces are removed. This value might be displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) If you include this field in a request, you must also include **invoiceHeader_ merchantDescriptor** and **invoiceHeader_ merchantDescriptor State**.	String (11)

Table 47 Merchant Descriptor Fields for FDC Nashville Global (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Country	Country in which your business is located. Use the two-character *ISO Standard Country Codes*. This value might be displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (2)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location. This value might be displayed on the cardholder's statement. When the merchant descriptor country is the U.S., the postal code must consist of five digits or nine digits. A 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the merchant descriptor country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] **Example** A1B 2C3 For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (10)

Table 47   Merchant Descriptor Fields for FDC Nashville Global (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor State	State or territory in which your business is located. cardholder's statement. When the merchant descriptor country is the U.S. or Canada, use the *State, Province, and Territory Codes for the United States and Canada*. This value might be displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) If you include this field in a request, you must also include **invoiceHeader_ merchantDescriptor** and **invoiceHeader_ merchantDescriptor Contact**.	String (20)
invoiceHeader_ merchantDescriptor Street	Street address for your business location. When you include this value in your request, CyberSource recommends the following: ■ If you are located in the United States or Canada, also include the merchant descriptor country, merchant descriptor state, and merchant descriptor postal code in your request. ■ If you are not located in the United States or Canada, also include the merchant descriptor country and merchant descriptor postal code in your request. This value might be displayed on the cardholder's statement. For information about what happens when you do not include this value in your request, see "Merchant Descriptor Logic," page 160.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) FDC Nashville Global recommends that you include this value for debit card requests and for American Express credit card requests.	String (60)

FDMS South Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

- Contact FDMS South to register to use merchant descriptors.
- Contact CyberSource Customer Support to have your account configured for this feature.

FDMS South permits you to send a unique merchant descriptor with every transaction. This is useful if you want to include the order number as part of the merchant descriptor.

FDMS South supports the merchant descriptor described in the following table.

Table 48   Merchant Descriptor Field for FDMS South

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)

GPN Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests, contact your merchant account provider to register to use merchant descriptors.

GPN supports the merchant descriptors listed in the following table.

Table 49   Merchant Descriptor Fields for GPN

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)
invoiceHeader_ merchantDescriptor Contact	Merchant contact information, such as a phone number, that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (13)

Ingenico ePayments Merchant Descriptors

> **Note** Ingenico ePayments was previously called *Global Collect*.

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests, contact CyberSource Customer Support to have your account configured for this feature.

Ingenico ePayments supports the merchant descriptor described in the following table.

Table 50   Merchant Descriptor Field for Ingenico ePayments

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService ccCaptureService ccCreditService Required when **invoiceHeader_ merchantDescriptor Contact** is included in the request.	String (22)

Litle Merchant Descriptors

Services:

■ Authorization

■ Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

■ Contact Litle to register to use merchant descriptors.

■ Contact CyberSource Customer Support to have your account configured for this feature.

Note	Litle accepts merchant descriptors in authorization requests and stand-alone credit requests, not in capture requests or follow-on credit requests. Merchant descriptors included in capture or follow-on credit requests are not sent to Litle.

If merchant descriptors are enabled for your CyberSource account, CyberSource always provides merchant descriptor information to the processor for you for all authorization transactions. When you do not include merchant descriptor information in your authorization requests, CyberSource uses the default values in your CyberSource account.

American Express Direct supports the merchant descriptors listed in the following table. Even though the following fields are supported, American Express Direct does not always include all these fields on the cardholder's statement.

Table 51   Merchant Descriptor Fields for Litle

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.	ccAuthService ccCreditService See the description.	String (22)
	When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]		
	When you include the merchant descriptor contact field in your request, you must provide a merchant descriptor in this field or in your CyberSource account. When you do not include the merchant descriptor contact in your request, the merchant descriptor is optional.		
	You can use one of the following formats for the merchant descriptor field. You are not required to use these formats.		
	■ <12-character prefix>*<9-character product description>		
	■ <7-character prefix>*<14-character product description>		
	■ <3-character prefix>*<18-character product description>		
	When you use one of these formats:		
	■ The prefix in the merchant descriptor field must be exactly the same as the prefix set in your Litle account. Typically, the prefix is your merchant name.		
	■ The valid characters for the merchant descriptor are: ● Numbers ● Letters ● The following special characters: ampersand (&), asterisk (*), dash (-), pound sign (#), comma, and period		

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

Table 51   **Merchant Descriptor Fields for Litle (Continued)**

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Alternate	Alternate contact information for your business, such as an email address or URL. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the merchant URL from your CyberSource account.	ccAuthService (O) ccCreditService (O)	String (13)
invoiceHeader_ merchantDescriptorCity	City or phone number for your business. This value might be displayed on the cardholder's statement. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccAuthService (O) ccCreditService (O)	String (50)
invoiceHeader_ merchantDescriptor Contact	Contact information for your business. This value might be displayed on the cardholder's statement. This value could be used to resolve billing inquiries and disputes. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your request, CyberSource uses the URL or phone number in your CyberSource account.[1]	ccAuthService (O) ccCreditService (O)	String (13)

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

OmniPay Direct Merchant Descriptors

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Table 52   Merchant Descriptor Fields for OmniPay Direct

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. This name is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant name from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (23)
invoiceHeader_ merchantDescriptorCity	City for your business location. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant city from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (13)

Table 52   Merchant Descriptor Fields for OmniPay Direct (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor Country	Country code for your business location. Use the standard *ISO Standard Country Codes*. This value might be displayed on the cardholder's statement. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant country from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (2)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location. This value might be displayed on the cardholder's statement. If your business is domiciled in the U.S., you can use a 5-digit or 9-digit postal code. A 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 If your business is domiciled in Canada, you can use a 6-digit or 9-digit postal code. A 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] **Example** A1B 2C3 When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant postal code from your CyberSource account. **Important** This value must consist of English characters. **Important** Mastercard requires a postal code for any country that uses postal codes. You can provide the postal code in your CyberSource account or you can include this field in your request.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (10)

Table 52   Merchant Descriptor Fields for OmniPay Direct (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor State	State code or region code for your business location. This value might be displayed on the cardholder's statement. For the U.S. and Canada, use the standard *State, Province, and Territory Codes for the United States and Canada*. When you do not include this value in your capture or credit request, CyberSource uses the value from your authorization request. If you did not include this value in your authorization request, CyberSource uses the merchant state from your CyberSource account. **Important** This value must consist of English characters.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (3)

OmniPay-Ireland Merchant Descriptors

> **Note** OmniPay-Ireland is the CyberSource name for HSBC International.

Services:

- Authorization
- Capture
- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

■   Contact OmniPay-Ireland to register to use merchant descriptors.

■   Contact CyberSource Customer Support to have your account configured for this feature.

OmniPay-Ireland supports the merchant descriptor field listed in the following table.

Table 53   Merchant Descriptor Fields for OmniPay-Ireland

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed. You must use one of the following formats: ■ <12-character merchant name>* <10-character product description> ■ <7-character merchant name>* <15-character product description> ■ <3-character merchant name>* <19-character product description> This field is supported only for Visa, Mastercard, and Discover.	ccAuthService ccCaptureService ccCreditService	String (23)

Streamline Merchant Descriptors

Services:

■ Capture

■ Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests:

■ Contact Streamline to let them know the values you will be sending in these fields.

■ Contact CyberSource Customer Support to have your account configured for this feature.

Streamline supports the merchant descriptor fields listed in the following table. When you include any merchant descriptors in a request, you must include all the fields in the following table.

Table 54   Merchant Descriptor Fields for Streamline

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. When you include more than one consecutive space, extra spaces are removed.	ccCaptureService ccCreditService	String (22)
invoiceHeader_ merchantDescriptor Contact	Contact information for your business. When you include more than one consecutive space, extra spaces are removed. For card-present transactions, Streamline recommends that this field contain your city. For card-not-present transactions, Streamline recommends that this field contain the telephone number for your help desk or the URL for your web site. When you provide a telephone number in this field, the first three digits must be numeric.	ccCaptureService (O) ccCreditService (O)	String (13)
invoiceHeader_ merchantDescriptor PostalCode	Postal code for your business location.	ccCaptureService (O) ccCreditService (O)	String (10)
invoiceHeader_ merchantDescriptor Street	Street address for your business location.	ccCaptureService (O) ccCreditService (O)	String (26)

TSYS Acquiring Solutions Merchant Descriptors

Services:

- Capture

- Credit

This feature enables you to submit merchant descriptor values that are displayed on a cardholder's statement.

Before including merchant descriptors in your requests, contact CyberSource Customer Support to have your account configured for this feature.

TSYS Acquiring Solutions supports the merchant descriptor fields listed in the following table.

Table 55 Merchant Descriptor Fields for TSYS Acquiring Solutions

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor	Your business name. When you include more than one consecutive space, extra spaces are removed. When you do not include this value in your capture or credit request, CyberSource uses the business name from your CyberSource account.[1]	ccCaptureService ccCreditService Required when the merchant descriptor contact field is included in the request; otherwise, optional.	American Express card type: String (38) All other card types: String (23)
invoiceHeader_ merchantDescriptorCity	City for your business location. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	American Express card type: String (21) All other card types: String (13)
invoiceHeader_ merchantDescriptor Contact	For card-present transactions, TSYS Acquiring Solutions recommends that this field contain the street address for your business location. For card-not-present transactions, TSYS Acquiring Solutions recommends that this field contain the phone number for your business or the URL for your web site. When you do not include this value in your request, CyberSource uses the value that is in your CyberSource account.[1]	ccCaptureService (O) ccCreditService (O)	String (13)

1 To add this value to your CyberSource account, contact CyberSource Customer Support.

Merchant-Initiated Reversals and Voids

Services:

- Authorization
- Capture
- Credit

Processors:

- Chase Paymentech Solutions
- CyberSource through VisaNet
- FDC Nashville Global
- OmniPay Direct—merchant-initiated voids are not supported.

When you do not receive a reply message after sending a request to CyberSource, this feature enables you to reverse or void the transaction that you requested.

To use merchant-initiated reversals and voids on Chase Paymentech Solutions and FDC Nashville Global:

Step 1   Include the **merchantTransactionIdentifier** field in your original request for an authorization, capture, sale, follow-on credit, or stand-alone credit.

> **Note**   The value of the merchant transaction ID must be unique for 60 days.

Step 2 When you do not receive a reply message for your original transaction request, reverse or void the original transaction as described in the following table.

Transaction to Reverse or Void	Procedure
Authorization	Request the full authorization reversal service as described in "Creating a Full Authorization Reversal Request," page 46. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your reversal request to your original request.
Capture or sale	1 Request the void service as described in "Creating a Void Request," page 70. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your void request to your original request.
	2 Request the authorization reversal service as described in "Creating a Full Authorization Reversal Request," page 46. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your reversal request to your original request.
Credit	Request the void service as described in "Creating a Void Request," page 70. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your void request to your original request.

Step 3 If the original transaction failed, the reply message for the reversal or void request includes the following fields:

- originalTransaction_amount
- originalTransaction_reasonCode

To use merchant-initiated reversals and voids on CyberSource through VisaNet:

Step 1   Include the **merchantTransactionIdentifier** field in your original request for an authorization, capture, sale, follow-on credit, or stand-alone credit.

> **Note**   The value of the merchant transaction ID must be unique for 60 days.

Step 2   When you do not receive a reply message for your original transaction request, reverse or void the original transaction as described in the following table.

Transaction to Reverse or Void	Procedure
Authorization	Request the full authorization reversal service as described in "Creating a Full Authorization Reversal Request," page 46. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your reversal request to your original request.
Capture or sale	Request the void service as described in "Creating a Void Request," page 70. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your void request to your original request. CyberSource automatically handles authorization reversals on capture and sale requests.
Credit	Request the void service as described in "Creating a Void Request," page 70. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your void request to your original request.

Step 3   If the original transaction failed, the reply message for the reversal or void request includes the following fields:

- originalTransaction_amount
- originalTransaction_reasonCode

To use merchant-initiated reversals on OmniPay Direct:

Step 1 Include the **merchantTransactionIdentifier** field in your original request for an authorization, capture, or sale.

> **Note** The value of the merchant transaction ID must be unique for 60 days.

Step 2 When you do not receive a reply message for your original transaction request, reverse the original transaction as described in the following table.

Transaction to Reverse or Void	Procedure
Authorization	Request the full authorization reversal service as described in "Creating a Full Authorization Reversal Request," page 46. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your reversal request to your original request.
Capture or sale	1 Request the void service as described in "Creating a Void Request," page 70. Include the request ID in your request message.
	2 Request the authorization reversal service as described in "Creating a Full Authorization Reversal Request," page 46. Instead of including the request ID in your request message, include the **merchantTransactionIdentifier** field. The merchant transaction ID links your reversal request to your original request.
Credit	Request the void service as described in "Creating a Void Request," page 70. Include the request ID in your request message.

Step 3 If the original transaction failed, the reply message for the reversal request includes the following fields:

- originalTransaction_amount
- originalTransaction_reasonCode

Merchant-Initiated Transactions

Service:

■ Authorization

Processors:

■ CyberSource through VisaNet

Most authorizations are initiated by a customer in person, on the phone, or on a web site. A *merchant-initiated transaction*, also called a *card-on-file transaction*, *credentials-on-file transaction*, or *subsequent authorization*, is an authorization that you initiate when the customer is not present. A merchant-initiated transaction uses payment information that was provided in a customer-initiated transaction.

Specific kinds of merchant-initiated transactions are:

■ Account top up—is the result of instructions between you and customer to charge a specific or variable amount at specified or variable intervals.

■ Delayed charge—is associated with an agreement between you and the cardholder for services rendered. Delayed charges are typical for lodging transactions and auto rental transactions.

■ Final authorization—occurs when an estimated authorization was performed and you need to authorize the final amount. See "Final Authorization Indicator," page 121.

■ Incremental authorization—is a continuation of a purchase when the originally approved amount is modified to accommodate additional services. Incremental authorizations are typical for lodging transactions and auto rental transactions.

■ Installment payment—is the result of instructions governed by a contract between you and a customer. The instructions enable you to charge a specific amount at specified intervals. See "Merchant-Funded Installment Payments on CyberSource through VisaNet," page 133, for information about merchant-funded installment payments with Visa.

■ No show—occurs when you and a customer have an agreement for a purchase, but the customer does not meet the terms of the agreement. No show transactions are typically used in hotels and motels for a single-night stay.

■ Reauthorization for split shipment—a split shipment occurs when goods are not available for shipment when the customer purchases them. When the goods become available to ship, a new authorization is performed, either by you or by CyberSource, to make sure that the cardholder's funds are still available. The reauthorization is performed in one of the following scenarios:

● Before requesting a capture, you request an authorization using the saved cardholder credentials.

● You use the CyberSource split shipments feature. See "Split Shipments," page 214.

■ Recurring payment—is the result of instructions governed by a contract between you and a customer. The instructions enable you to charge a specific or variable amount at specified intervals. See "Recurring Payments," page 202.

■ Resubmission—occurs when a customer-initiated purchase occurred, but you could not obtain an authorization at that time. A resubmission is valid only when the original authorization was declined for insufficient funds and only for a limited number of days after the original purchase.

For a merchant-initiated transaction, the authorization request must include the following fields:

■ subsequentAuth

■ subsequentAuthFirst

■ subsequentAuthReason—not required for installment payments or recurring payments or when **subsequentAuthFirst** is `true`

■ subsequentAuthTransactionID

For descriptions of the preceding fields, see Appendix A, "API Fields," on page 232.

Micropayments

Services:

■ Authorization
■ Capture
■ Credit

Processors:

■ Most of the card types and processors that are supported by CyberSource

Micropayments are payments for less than one unit in the transaction's currency.

Multi-Currency Service

Services:

- Authorization
- Capture
- Credit

Processor:

- Chase Paymentech Solutions

If you sell your products in multiple countries, you might want to list your product prices in your customers' local currencies. The CyberSource multi-currency service provides current, guaranteed exchange rates, which enables customers to pay using their local currencies while enabling you to do business and settle transactions in your desired currency.

For more information about the CyberSource multi-currency service, see the *Multicurrency Service for Chase Paymentech Solutions Using the Simple Order API*.

Network Tokenization

See "Payment Network Tokenization," page 199.

Partial Shipments

See "Split Shipments," page 214.

Payer Authentication

	Before you implement payer authentication, you must contact CyberSource Customer Support to have your account configured for this feature.
! **Important**	

When you request an authorization using a supported card type and a supported processor, you can include payer authentication data in the request. You can use the CyberSource payer authentication services to add Verified by Visa, JCB J/Secure™, Mastercard® SecureCode™, or American Express SafeKey support to your web site without running additional software on your own server. The following table lists the cards supported for each type of payer authentication. For a description of the CyberSource payer authentication services, see the *Payer Authentication Using the Simple Order API*.

Table 56   Supported Card Types for Payer Authentication

Type of Payer Authentication	Card Types
Verified by Visa	Visa
JCB J/Secure	JCB
Mastercard SecureCode	Mastercard, Maestro (International), Maestro (UK Domestic)
American Express SafeKey	American Express

Verified by Visa

Service:

- Authorization

Processors:

- AIBMS
- Asia, Middle East, and Africa Gateway
- Atos
- Barclays
- CCS (CAFIS)
- Chase Paymentech Solutions
- Cielo
- Comercio Latino

■ CyberSource Latin American Processing: Verified by Visa is an emerging feature in the Latin American region. It is not fully supported in all countries. Contact CyberSource Customer Support for details.

> *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.
>
> **Note**

■ CyberSource through VisaNet: This feature is supported for acquirers that support the Visa card type.

■ Elavon

■ FDC Compass

■ FDC Germany

■ FDI Australia

■ FDC Nashville Global

■ FDMS Nashville

■ FDMS South

■ GPN

■ HBoS

■ HSBC: HSBC is the CyberSource name for HSBC U.K.

■ Ingenico ePayments

■ JCN Gateway

■ Litle

■ LloydsTSB Cardnet

■ Moneris

■ OmniPay Direct. The supported acquirers are:

  • Bank of America Merchant Services

  • First Data Merchant Solutions (Europe)

  • Global Payments International Acquiring

■ OmniPay-Ireland: OmniPay-Ireland is the CyberSource name for HSBC International.

■ RBS WorldPay Atlanta

■ Streamline

■ TSYS Acquiring Solutions

Verified by Visa reduces the risk of unauthorized use of a cardholder account. Verified by Visa enables you to verify a customer's identity through the use of a password, and provides results to you in real time during the checkout process. For details about signing up for and using Verified by Visa, contact your acquiring bank or go to the Visa web site:

http://visa.com/

> **Note**
>
> For Verified by Visa transactions, use card type `001`. Do not use card type `033`. For information about card type values, see Appendix F, "Card Types," on page 385.

> **Note**
>
> For Visa Checkout transactions, do not map the Verified by Visa data from the decrypt Visa Checkout data service reply message to the payer authentication fields in the authorization request. CyberSource maps the data for you. The transaction information that CyberSource sends to the processor includes the Verified by Visa data.

To request the authorization of a Verified by Visa transaction:

Step 1   Add the fields listed in the following table to your **ccAuthService** request. The values for these fields are in the reply from the validate authentication service **payerAuthValidateService**. When you request **payerAuthValidateService** and **ccAuthService** together, the data is automatically passed from one service to the other.

The authorization service returns a raw response code and a mapped response code:

- The *raw response code* is the value returned by the processor. CyberSource returns this value in the **ccAuthReply_cavvResponseCodeRaw** field.

- The *mapped response code* is the predefined CyberSource value that corresponds to the raw response code. CyberSource returns this value in the **ccAuthReply_ cavvResponseCode** field. Appendix R, "Verified by Visa Response Codes," on page 419 describes the mapped response codes.

Table 57   Request Fields for Verified by Visa and JCB J/Secure

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
CAVV—cardholder authentication verification value. This value is a transaction identifier generated by the issuing bank during Verified by Visa or JCB J/Secure payer authentication. Must be 28-character base64 or 40-character hex binary. ■ Used for all processors that support Verified by Visa and/or JCB J/Secure. ■ Required when the commerce indicator is `js`, `vbv`, or `vbv_attempted`. ■ Optional when the commerce indicator is `js_attempted`. ■ For Verified by Visa on FDC Nashville Global, CyberSource sets this field to the value for the transaction identifier (XID) if the XID is present in the authorization request and the CAVV is not present.	ccAuthService_cavv	payerAuthValidateReply_cavv

CAVV Algorithm—algorithm for generating the CAVV.
 	
■ Used only for these processors:
   ● Atos
   ● Ingenico ePayments when a third-party provider authenticates the transaction
 	
■ Required when you include the CAVV in your request.
 	
■ You must not include the CAVV algorithm value in your request when the CAVV is not included in your request or when your processor is not Atos or Ingenico ePayments.
 	
■ Possible values:
`0`: HMAC (hash-based message authentication code)
`1`: CVV
`2`: CVV with ATN
 	
Note Ingenico ePayments was previously called *Global Collect*.
	ccAuthService_cavvAlgorithm	payerAuthValidateReply_cavvAlgorithm

Table 57 Request Fields for Verified by Visa and JCB J/Secure (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field

ECI—electronic commerce indicator.
 	
■ Used for all processors that support Verified by Visa and/or JCB J/Secure.
 	
■ Always required.
 	
■ Possible values for a Verified by Visa or JCB J/Secure transaction:
  ● `js`: Successful JCB J/Secure transaction.
  ● `js_attempted`: JCB J/Secure transaction was attempted but not authenticated.
  ● `vbv`: Successful Verified by Visa transaction.
  ● `vbv_attempted`: Verified by Visa transaction was attempted but not authenticated.
  ● `vbv_failure`: Verified by Visa authentication failed. Available only for HSBC and Streamline.
	ccAuthService_ commerceIndicator	payerAuthValidateReply_ commerceIndicator

ECI Raw—raw electronic commerce indicator. ■ Used for all processors that support Verified by Visa and/or JCB J/Secure. ■ Required when the payer authentication validation service returns a raw ECI value. ■ Some processors require the raw ECI to guarantee chargeback protection. Contact CyberSource Customer Support for information about your processor's requirements.	ccAuthService_eciRaw	payerAuthValidateReply_ eciRaw

Table 57   Request Fields for Verified by Visa and JCB J/Secure (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
PARes Status—payer authentication response status.	ccAuthService_ paresStatus	payerAuthValidateReply_ paresStatus

- Used only for these processors:
  - Asia, Middle East, and Africa Gateway
  - Atos
  - Ingenico ePayments when a third-party provider authenticates the transaction
- For Atos and Ingenico ePayments: required for a successful Verified by Visa transaction, which is indicated when the commerce indicator is vbv.
- For the Asia, Middle East, and Africa Gateway: required unless all of the following are true:
  - You are requesting the payer authentication and the authorization in separate requests.
  - This is a successful or attempted Verified by Visa transaction, which is indicated when the commerce indicator is vbv or vbv_attempted.
  - The card is not enrolled, which is indicated when the VERes enrolled status is not Y.

    When all the preceding conditions are true, do not include the PARes status in the authorization request. If you do, CyberSource sends the value to the processor without modification. CyberSource does not decline the transaction; declines are generated by the processor.
- Possible values:
  - Y: Customer was successfully authenticated.
  - A: Proof of authentication attempt was generated.
  - N: Customer failed or cancelled authentication. Transaction denied.
  - U: Authentication not completed regardless of the reason.

Note Ingenico ePayments was previously called *Global Collect*.

Table 57 Request Fields for Verified by Visa and JCB J/Secure (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field

VERes Enrolled—verification response enrollment status.
 	
■ Used only for the Asia, Middle East, and Africa Gateway.
 	
■ Required for all payer authentication transactions.
 	
■ Possible values:
  ● Y: Authentication available.
  ● N: Cardholder not participating.
  ● U: Unable to authenticate regardless of the reason.
	ccAuthService_ veresEnrolled	payerAuthEnrollReply_ veresEnrolled

XID—transaction identifier. Must be 28-character base64 or 40-character hex binary. ■ Used for all processors that support Verified by Visa and/or JCB J/Secure. ■ For Atos: required for a successful Verified by Visa transaction, which is indicated when the commerce indicator is vbv. ■ For all other processors: required when the commerce indicator is js or vbv. ■ Optional when the commerce indicator is js_attempted or vbv_attempted. ■ For Verified by Visa on FDC Nashville Global, CyberSource sets the cardholder authentication verification value (CAVV) field to the XID value if the XID is present in the authorization request and the CAVV is not present.	ccAuthService_xid	payerAuthValidateReply_xid

JCB J/Secure

Service:

■ Authorization

Processors:

■ CCS (CAFIS)

■ CyberSource through VisaNet: supported for acquirers that support the JCB card type.

■ Ingenico ePayments

■ JCN Gateway

■ TSYS Acquiring Solutions

JCB J/Secure authenticates the customer by adding a password identification step to the online shopping process. For details about signing up for and using J/Secure, contact your acquiring bank or go to the JCB web site:

http://www.jcb-global.com/

To request the authorization of a JCB J/Secure transaction:

Step 1 Add the fields listed in Table 57, "Request Fields for Verified by Visa and JCB J/Secure," on page 187 to your **ccAuthService** request. The values for these fields are in the reply from the validate authentication service **payerAuthValidateService**. When you request **payerAuthValidateService** and **ccAuthService** together, the data is automatically passed from one service to the other.

Mastercard SecureCode

Service:

■ Authorization

Processors:

■ AIBMS

■ Asia, Middle East, and Africa Gateway

■ Atos

■ Barclays

■ Chase Paymentech Solutions

■ CCS (CAFIS)

■ Cielo

■ Comercio Latino

- CyberSource Latin American Processing: Mastercard SecureCode is an emerging feature in the Latin American region. It is not fully supported in all countries. Contact CyberSource Customer Support for details.

> **Note** — *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.

- CyberSource through VisaNet: This feature is supported for acquirers that support Mastercard.
- Elavon
- FDC Compass
- FDC Germany
- FDI Australia
- FDC Nashville Global
- FDMS Nashville
- FDMS South
- GPN
- HBoS
- HSBC: HSBC is the CyberSource name for HSBC U.K.
- Ingenico ePayments
- JCN Gateway
- Litle
- LloydsTSB Cardnet
- Moneris
- OmniPay Direct. The supported acquirers are:
    - Bank of America Merchant Services
    - First Data Merchant Solutions (Europe)
    - Global Payments International Acquiring

- OmniPay-Ireland: OmniPay-Ireland is the CyberSource name for HSBC International.
- RBS WorldPay Atlanta
- Streamline
- TSYS Acquiring Solutions

Mastercard SecureCode adds security to online transactions by authenticating SecureCode account holders for specific transactions. SecureCode generates a unique, 32-character transaction token, called the account authentication value (AAV), each time a SecureCode-enabled account holder makes an online purchase. The AAV binds the

account holder to a specific transaction. SecureCode transactions use the universal cardholder authentication field (UCAF) as a standard to collect and pass AAV data. For details about signing up for and using SecureCode or UCAF, contact your acquiring bank or go to the Mastercard web site:

http://www.mastercard.com/

To request the authorization of a Mastercard SecureCode transaction:

Step 1   Add the fields in Table 58, "Request Fields for Mastercard SecureCode," to your **ccAuthService** request. The values for these fields are in the reply from the validate authentication service **payerAuthValidateService**. When you request **payerAuthValidateService** and **ccAuthService** together, the data is automatically passed from one service to the other.

Table 58   Request Fields for Mastercard SecureCode

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field

CAVV Algorithm—algorithm for generating the UCAF authentication data.
 	
■ Used only for these processors:
   ● Atos
   ● Ingenico ePayments when a third-party provider authenticates the transaction
 	
■ Required when you include the UCAF authentication data in your request.
 	
■ You must not include the CAVV algorithm value in your request when the UCAF authentication data is not included in your request or when your processor is not Atos or Ingenico ePayments.
 	
■ Possible values:
0: HMAC (hash-based message authentication code)
1: CVV
2: CVV with ATN
3: Mastercard SPA (secure payment algorithm)
 	
Note Ingenico ePayments was previously called *Global Collect*.
	ccAuthService_ cavvAlgorithm	payerAuthValidateReply_ cavvAlgorithm

ECI—electronic commerce indicator.
 	
■ Used for all processors that support Mastercard SecureCode.
 	
■ Always required.
 	
■ Possible values for a Mastercard SecureCode transaction:
   ● `spa`: Mastercard SecureCode transaction.
   ● `spa_failure`: Mastercard SecureCode authentication failed. Available only for Elavon, HSBC, and Streamline.
	ccAuthService_ commerceIndicator	payerAuthValidateReply_ commerceIndicator

ECI Raw—raw electronic commerce indicator. ■ Used for all processors that support Mastercard SecureCode. ■ Required when the payer authentication validation service returns a raw ECI value. ■ Some processors require the raw ECI to guarantee chargeback protection. Contact CyberSource Customer Support for information about your processor's requirements.	ccAuthService_eciRaw	payerAuthValidateReply_ eciRaw

Table 58   Request Fields for Mastercard SecureCode (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
PARes Status—payer authentication response status. ■ Used only for these processors: ● Asia, Middle East, and Africa Gateway ● Atos ● Ingenico ePayments when a third-party provider authenticates the transaction ■ For Atos and Ingenico ePayments: required for a successful Mastercard SecureCode transaction, which is indicated when the UCAF collection indicator is 2. ■ For the Asia, Middle East, and Africa Gateway: required unless all of the following are true: ● You are requesting the payer authentication and the authorization in separate requests. ● This is a successful Mastercard SecureCode transaction, which is indicated when the commerce indicator is spa. ● The card is not enrolled, which is indicated when the VERes enrolled status is not Y. When all the preceding conditions are true, do not include the PARes status in the authorization request. If you do, CyberSource sends the value to the processor without modification. CyberSource does not decline the transaction; declines are generated by the processor. ■ Possible values: ● Y: Customer was successfully authenticated. ● A: Proof of authentication attempt was generated. ● N: Customer failed or cancelled authentication. Transaction denied. ● U: Authentication not completed regardless of the reason. **Note** Ingenico ePayments was previously called *Global Collect*.	ccAuthService_ paresStatus	payerAuthValidateReply_ paresStatus

Table 58   Request Fields for Mastercard SecureCode (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
UCAF Authentication Data—authentication data for the universal cardholder authentication field. ■ Used for all processors that support Mastercard SecureCode. ■ Required when the UCAF collection indicator is 2 or 5. Optional when the UCAF collection indicator is 1. Do not include the UCAF authentication data in the authorization request if the UCAF collection indicator is not 1, 2, or 5. **Important** Mastercard has indicated that an issuing bank can decline an authorization request for a Mastercard SecureCode transaction when the UCAF collection indicator is 1 and the UCAF authentication data is not present.	ucaf_authenticationData	payerAuthValidateReply_ ucafAuthenticationData
UCAF Collection Indicator—collection indicator for the universal cardholder authentication field. ■ Used for all processors that support Mastercard SecureCode. ■ Always required. ■ Possible values: ● 0: UCAF collection is not supported at your web site. ● 1: UCAF collection is supported at your web site and the UCAF might have been populated. ● 2: UCAF collection is supported at your web site and the UCAF was populated. This value indicates a successful Mastercard SecureCode transaction. ● 5: UCAF collection is supported at your web site, and the UCAF was populated based on the risk assessment that the issuer performed. This value is supported only for Masterpass transactions. ● 6: UCAF collection is supported at your web site, and the UCAF was populated based on the risk assessment that you performed. This value is supported only for Masterpass transactions.	ucaf_collectionIndicator	payerAuthValidateReply_ ucafCollectionIndicator

Table 58   Request Fields for Mastercard SecureCode (Continued)

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
VERes Enrolled—verification response enrollment status. ■ Used only for the Asia, Middle East, and Africa Gateway. ■ Required for all payer authentication transactions. ■ Possible values: • Y: Authentication available. • N: Cardholder not participating. • U: Unable to authenticate regardless of the reason.	ccAuthService_ veresEnrolled	payerAuthEnrollReply_ veresEnrolled
XID—transaction identifier. Must be 28-character base64 or 40-character hex binary. ■ Used for all processors that support Mastercard SecureCode. ■ For Atos: required for a successful Mastercard SecureCode transaction, which is indicated when the UCAF collection indicator is 2. ■ For all other processors: required when the payer authentication validation service returns an XID value.	ccAuthService_xid	payerAuthValidateReply_xid

American Express SafeKey

Service:

■ Authorization

Processors:

■ American Express Direct: mandatory for transactions that originate in Singapore.

■ CyberSource through VisaNet: supported for acquirers that support the American Express card type.

■ FDC Nashville Global

■ JCN Gateway

American Express SafeKey (AESK) authenticates the cardholder during an online purchase and protects payment information as it is transmitted over the Internet.

To request the authorization of an AESK transaction:

Step 1 Add the fields in the following table to your **ccAuthService** request. The values for these fields are in the reply from the validate authentication service **payerAuthValidateService**. When you request **payerAuthValidateService** and **ccAuthService** together, the data is automatically passed from one service to the other.

The authorization service returns a raw response code and a mapped response code:

■ The *raw response code* is the value returned by the processor. CyberSource returns this value in the **ccAuthReply_cavvResponseCodeRaw** field.

■ The *mapped response code* is the predefined CyberSource value that corresponds to the raw response code. CyberSource returns this value in the **ccAuthReply_ cavvResponseCode** field. Appendix D, "American Express SafeKey Response Codes," on page 380, describes the mapped response codes.

Table 59   Request Fields for American Express SafeKey

Value and Requirements	Request Field for the Authorization Service	Get the Value from this Payer Authentication Reply Field
CAVV—cardholder authentication verification value. This value is a transaction identifier generated by the issuing bank during American Express SafeKey payer authentication. This value is required.	ccAuthService_cavv	payerAuthValidateReply_ cavv
ECI—electronic commerce indicator. This value is required. Possible values: ■ `aesk`: Successful AESK transaction. ■ `aesk_attempted`: AESK transaction was attempted but not authenticated.	ccAuthService_ commerceIndicator	payerAuthValidateReply_ commerceIndicator
XID—transaction identifier. This value is optional.	ccAuthService_xid	payerAuthValidateReply_xid

Payment Network Tokenization

Note	*Payment network tokenization* and CyberSource *payment tokenization* are not the same feature.

■   With payment network tokenization, the token is created by a token service provider and can be used throughout the financial network.

■   With CyberSource payment tokenization, the token is created by CyberSource and can be used only with CyberSource services.

See *Payment Network Tokenization Using the Simple Order API*.

Payment Tokenization

Note	*Payment network tokenization* and CyberSource *payment tokenization* are not the same feature.

■   With payment network tokenization, the token is created by a token service provider and can be used throughout the financial network.

■   With CyberSource payment tokenization, the token is created by CyberSource and can be used only with CyberSource services.

When you use Payment Tokenization, you can process an authorization, capture, or credit by using information that is stored in a customer profile. CyberSource uses the subscription ID to reference the customer profile information in the CyberSource database. Instead of providing all the information that is normally required for a transaction, you only need to provide the following values:

■   Merchant ID

■   Merchant reference code

■   Amount of the payment or credit

■   Subscription ID

You can override most of the information stored in the customer profile by including the relevant API fields in the payment or credit request. For example, you could provide a different billing or shipping address in the request. You cannot override the credit card account number.

See *Payment Tokenization Using the Simple Order API*.

POS Transactions

See *Card-Present Processing Using the Simple Order API*.

Quasi-Cash

Services:

- Authorization
- Full authorization reversal
- Capture
- Credit
- Void

Processors:

- Atos: Full authorization reversals and automatic partial authorization reversals are not supported for Atos.
- CyberSource through VisaNet. The supported acquirers are:
    - Auckland Savings Bank (ASB)
    - Australia and New Zealand Banking Group Limited (ANZ)
    - Axis Bank Ltd. of India
    - Bangkok Bank Ltd.
    - Habib Bank Ltd. (HBL)
    - HDFC Bank Ltd. of India
    - United Overseas Bank (UOB) in Singapore and Vietnam
    - Vantiv
    - Westpac
- GPN
- TSYS Acquiring Solutions

Before processing quasi-cash transactions, contact CyberSource Customer Support to have your account configured for this feature. If you have questions about the supported card types, contact your processor.

A quasi-cash transaction is a cash-like transaction for the sale of items that are directly convertible to cash, such as:

■ Casino gaming chips

■ Money orders

■ Wire transfers

Automatic partial authorization reversals are supported for quasi-cash transactions. See "Automatic Partial Authorization Reversals," page 57.

Recipients

Service:

■ Authorization

Processors:

■ Barclays

■ Elavon

■ HBoS

■ LloydsTSB Cardnet

■ Streamline

In the United Kingdom there is a regulation that permits cardholders to use a debit card to pay outstanding debt for another person. This person is referred to as the payment *recipient*. For example, a cardholder can pay the entire balance or part of the balance on a recipient's credit card or payday loan. To help reduce the high levels of fraud that occur for these kinds of transactions, you must include information about the recipient in the authorization request. The following fields are required in the United Kingdom for Visa debit transactions that are characterized under merchant category code 6012:

■ recipient_accountID

■ recipient_dateOfBirth

■ recipient_lastName

■ recipient_postalCode

These fields are described in Appendix A, "API Fields," on page 232.

Recurring Billing

When you use Recurring Billing, you can process an authorization, capture, or credit by using information that is stored in a subscription. CyberSource uses the subscription ID to reference the subscription information in the CyberSource database. Instead of providing all the information that is normally required for a transaction, you only need to provide the following values:

- Merchant ID
- Merchant reference code
- Amount of the payment or credit
- Subscription ID

You can override most of the information stored in the subscription by including the relevant API fields in the payment or credit request. For example, you could provide a different billing or shipping address in the request. You cannot override the credit card account number.

See *Recurring Billing Using the Simple Order API*.

Recurring Payments

Service:

- Authorization

Processors and card types:

- See the following table.

Table 60   Processors That Support Recurring Payments

Processors	Credit Card Types
AIBMS	Visa, Mastercard, Maestro (International)
American Express Brighton	American Express
American Express Direct	American Express
Asia, Middle East, and Africa Gateway	Visa, Mastercard, American Express, Diners Club, JCB
Atos	Visa, Mastercard Before processing recurring payments on Atos, you must: - Contact your acquirer to ensure that you are permitted to accept recurring transactions. - Contact Atos to have your account configured to accept recurring transactions.

Table 60   Processors That Support Recurring Payments (Continued)

Processors	Credit Card Types
Barclays	Visa, Mastercard, JCB
Chase Paymentech Solutions	Visa, Mastercard, American Express, Discover
Cielo	Visa, Mastercard, American Express, Diners Club, Discover, JCB, Maestro (International), Elo, Aura
	On Cielo, recurring payments are not supported for debit transactions.
Comercio Latino	Visa, Mastercard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard
	If you are processing transactions in Mexico, you must include the **billTo_customerID** field in the authorization. Before you request the authorization you must inform the issuer of the customer contract numbers in advance.
	The supported acquirers are:
	■ Banorte—must be submitted as an automatic capture. See "Automatic Captures," page 33.
	■ Cielo

Table 60   Processors That Support Recurring Payments (Continued)

Processors	Credit Card Types
CyberSource through VisaNet	Visa, Mastercard, American Express, Diners Club, JCB, Discover **Note** Not all card types are supported for all acquirers. The supported acquirers are: - Arab African International Bank (AAIB) - Asia Commercial Bank (ACB) - Auckland Savings Bank (ASB) - Australia and New Zealand Banking Group Limited (ANZ) - Axis Bank Ltd. of India - Banco Nacional de México (Banamex) - Bangkok Bank Ltd. - Bank Muscat of Oman - Bank of Ayudhya (BAY) - Bank of China (BOC) - Banque Pour Le Commerce Exterieur Lao (BCEL) - Citibank Hongkong and Macau - Citibank Singapore Ltd. - Commercial Bank of Qatar - CrediMax (Bahrain) - CTBC Bank Ltd. - Global Payment Asia Pacific - Habib Bank Ltd. (HBL) - HDFC Bank Ltd. of India - I&M Bank - ICICI of India - Mashreq - National Bank of Abu Dhabi (NBAD) - National Bank of Kuwait (NBK) - Overseas Chinese Banking Corp (OCBC) - Qatar National Bank (QNB Group) - United Overseas Bank (UOB) in Singapore and Vietnam - United Overseas Bank (UOB) in Thailand - Vantiv - Vietcombank - VietinBank - Westpac - Wing Hang Bank - Wing Lung Bank

Table 60   Processors That Support Recurring Payments (Continued)

Processors	Credit Card Types
Elavon	Visa, Mastercard, Maestro (UK), Diners Club
FDC Compass	Visa, Mastercard, American Express, Discover, Diners Club, JCB
FDC Germany	Visa, Mastercard
FDC Nashville Global	Visa, Mastercard, American Express, Discover
FDI Australia	Visa, Mastercard
FDMS South	Visa, Mastercard, Discover On FDMS South, recurring payments are not supported for the CAD currency on the Visa card type.
FDMS Nashville	Visa, Mastercard, American Express, Discover
GPN	Visa, Mastercard, American Express, Discover, Diners Club, JCB
HBoS	Visa, Mastercard

HSBC

HSBC is the CyberSource name for HSBC U.K.

To process recurring payments with HSBC, contact the CyberSource European office. For the European office's phone number, go to the CyberSource web site and click the **Contact Us** link: www.cybersource.com

Ingenico ePayments	Visa, Mastercard, American Express, Carte Bleue
Litle	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Lloyds-OmniPay	Visa, Mastercard
LloydsTSB Cardnet	Visa, Mastercard
Moneris	Visa, Mastercard, American Express, Discover
OmniPay Direct	Bank of America Merchant Services: Visa, Mastercard First Data Merchant Solutions (Europe): Visa, Mastercard, Discover, Diners Club Global Payments International Acquiring: Visa, Mastercard
OmniPay-Ireland	Visa, Mastercard

OmniPay-Ireland is the CyberSource name for HSBC International.

To process recurring payments with OmniPay-Ireland, contact the CyberSource European office. For the European office's phone number, go to the CyberSource web site and click the **Contact Us** link: www.cybersource.com

Table 60   Processors That Support Recurring Payments (Continued)

Processors	Credit Card Types
RBS WorldPay Atlanta	Visa, Mastercard, American Express, Discover, Diners Club, JCB
Streamline	
To process recurring payments with Streamline, contact the CyberSource European office. For the European office's phone number, go to the CyberSource web site and click the **Contact Us** link: www.cybersource.com	
TSYS Acquiring Solutions	Visa, Mastercard, American Express, Discover

Note   American Express and Discover have programs that you must register for if you want to process recurring payments. Contact American Express and Discover for details about their programs.

Depending on the types of products and services you sell, you might want to process recurring payments for a customer. For example, you might want to charge a customer 19.95 USD each month to access a service that you offer.

Note   A customer's recurring payment does not have to be the same amount each time.

You must disclose clearly to customers when they make a purchase what the amount will be for the recurring payments. If the amount varies based on usage, make it clear.

To create a recurring payment:

Step 1   For the first payment, the type of request you need to send depends on which processor and card type you are using.

- For Mastercard and American Express transactions on FDC Nashville Global, include the following fields and values in the request for the first payment:

  ccAuthService_commerceIndicator=recurring

  ccAuthService_firstRecurringPayment=TRUE

  card_cvNumber

- For all card types on Atos, include the following fields and values in the request for the first payment:

  ccAuthService_commerceIndicator=recurring

  ccAuthService_firstRecurringPayment=Y

  card_cvNumber

■ For all card types on OmniPay Direct, request a non-recurring transaction and include the following field and value in the request for the first payment:

ccAuthService_firstRecurringPayment=Y

■ For all other processors and card types, request a non-recurring transaction for a credit card authorization.

If the first authorization is successful, you can submit subsequent authorizations for recurring payments using that card. If the first authorization is not successful, do not submit subsequent authorizations using that card.

> ⚠️
> **Important**
> You must perform Step 1 once per year to verify the account.

Step 2 For each subsequent recurring payment, send an authorization request using the e-commerce indicator to indicate that the payment is a recurring payment:

ccAuthService_commerceIndicator=recurring

On CyberSource through VisaNet, your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

CyberSource also offers services that enable you to create a subscription or customer profile for a customer in the CyberSource system and then use that subscription or customer profile later to manually or automatically bill the customer. The CyberSource system eliminates the need for you to handle or store the customer's sensitive credit card information or create your own system for billing the customer on a regular basis. For more information, see "Payment Tokenization," page 199, and "Recurring Billing," page 202.

AVS and Recurring Payments

> FDMS Nashville does not support AVS for recurring payments.
>
> **Note**

If AVS is supported for your processor and card type, AVS is run for every authorization request that you submit. For recurring payments, check the AVS result for the first payment to ensure that the payment information is accurate and to reduce the risk of fraud.

You must decide what to do with the AVS results for subsequent payments. You might want to ignore the AVS results for the these payments because you have already confirmed with the first payment that the credit card number is valid and not fraudulent.

When you need to change the credit card number used for a series of recurring payments, follow Step 1 in creating a recurring payment to verify the new account number. Closely evaluate the AVS results. If the first authorization is successful, you can submit subsequent authorizations for recurring payments using that card. If the first authorization is not successful, do not submit subsequent authorizations using that card. For subsequent payments, follow Step 2 in creating a recurring payment. You can choose to ignore the AVS results.

CVN and Recurring Payments

> FDMS Nashville does not support CVN for recurring payments.
>
> **Note**

With Ingenico ePayments, you must not include the CVN in a recurring payment request. If you do, CyberSource rejects the request because of invalid data.

> Ingenico ePayments was previously called *Global Collect*.
>
> **Note**

Replacement Expiration Dates for Recurring Payments

Service:

■ Authorization

Processors and card types:

■ See the following table.

**Table 61   Processors That Support Replacement Expiration Dates
for Recurring Payments**

Processors	Credit Card Types
AIBMS	Visa, Mastercard, Maestro (International)
American Express Brighton	American Express
	You must contact American Express Brighton to get approval for using replacement expiration dates before using this feature.
American Express Direct	American Express
Barclays	Visa, Mastercard, JCB
Chase Paymentech Solutions	Visa, Mastercard
CyberSource through VisaNet	Visa, Mastercard, American Express, Diners Club, JCB, Discover
	Note Not all card types are supported for all acquirers.
	If an acquirer is supported for recurring payments, the acquirer is also supported for replacement expiration dates for recurring payments. For the list of supported acquirers, see the entry for CyberSource through VisaNet in Table 34, "Processors That Support Installment Payments," on page 128.
FDC Compass	Visa, Mastercard, American Express, Discover, Diners Club
FDC Germany	Visa, Mastercard
FDI Australia	Visa, Mastercard
FDMS South	Visa, Mastercard
HBoS	Visa, Mastercard
HSBC HSBC is the CyberSource name for HSBC U.K.	Visa, Mastercard, Maestro (International)
Lloyds-OmniPay	Visa, Mastercard
LloydsTSB Cardnet	Visa, Mastercard
Streamline	To process recurring payments with Streamline, contact the CyberSource European office. For the European office's phone number, go to the CyberSource web site and click the **Contact Us** link: www.cybersource.com

Normally when you request a credit card authorization, you must provide a valid expiration date for the credit card. If you are processing a recurring payment, and the credit card that you have on file for the customer has expired, you might still be able to request the authorization depending on which processor you use. Instead of sending the out-of-date expiration date, you can include a replacement expiration date in your request.

> ⚠️ **Important**
>
> Do not use a replacement expiration date for cards that have not expired. Use a replacement expiration date only for cards that have expired and only for recurring payments.
>
> Using a replacement expiration date for a recurring payment does not guarantee that the authorization will be successful. The issuing bank determines whether a card is authorized; some issuing banks do not accept an expiration date that does not match the expiration date in the bank's database.

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

CyberSource supports the following replacement expiration dates:

- 12/2021
- 12/2099—This date is supported only for the processors listed in Table 62.

To use the12/2021 date, include these fields and values in your authorization request:

```
card_expirationMonth=12
card_expirationYear=2021
```

To use the 12/2099 date, include these fields and values in your authorization request:

```
card_expirationMonth=12
card_expirationYear=2099
```

The 12/2021 replacement expiration date has recently become a valid expiration date. Consequently, CyberSource is transitioning to a new replacement expiration date of 12/2099 and has implemented support for 12/2021 as a valid expiration date:

■   In March 2015, CyberSource will discontinue support for the 12/2021 replacement expiration date and will support only the 12/2099 replacement expiration date. The following table identifies the processors that support the 12/2099 replacement expiration date and the month and year that the replacement expiration date is supported.

Table 62   Processors that Support the 12/2099 Replacement Expiration Date

Processor	Month and Year 12/2099 Replacement Expiration Date Is Supported
AIBMS	October 2014
American Express Brighton	October 2014
American Express Direct	October 2014
Barclays	October 2014
Chase Paymentech Solutions	August 2014
FDC Compass	August 2014
FDC Germany	October 2014
FDMS South	October 2014
HSBC HSBC is the CyberSource name for HSBC U.K.	October 2014
HBoS	October 2014
Lloyds-OmniPay	October 2014
LloydsTSB Cardnet	October 2014
Streamline	October 2014

■   Effective August 2014, CyberSource supports 12/2021 as a valid expiration date for the following processors:

●   Chase Paymentech Solutions

●   FDC Compass

To enable 12/2021 as a valid expiration date, contact CyberSource Customer Support to have your account configured for this feature.

Recurring Profiles

See "Recurring Billing," page 202.

Report Groups

Services:

- Authorization
- Full authorization reversal
- Capture
- Credit

Processor:

- Litle

Report group values enable you to define custom groups for your processor reports. You can put your transactions into groups and then request processor reports for each group. This value is case sensitive and space sensitive.

Note	If you do not have a specific report group structure in mind, Litle recommends that you use your merchant ID as your report group value.

Important	To use multiple report groups for your transactions, you must contact Litle to have your Litle account configured for this feature. If you use one report group for all your transactions, you do not need to have your Litle account configured for this feature.

The following table describes the logic that CyberSource uses for each kind of request to determine which report group value to use.

Table 63   Determining Which Report Group Value to Use

Kind of Request	Report Group Value
Authorization or Stand-Alone Credit	CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds: ■ **reportGroup** field in the authorization or stand-alone credit request ■ Report group value in your CyberSource account: Your CyberSource account can have a different report group value for each currency that you process. CyberSource uses the report group value that corresponds to the currency for the transaction. To create a default report group value in your CyberSource account, contact CyberSource Customer Support. ■ Your Litle merchant ID
Capture or Full Authorization Reversal	CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds: ■ **reportGroup** field in the capture or full authorization reversal request ■ Report group value that was used for the authorization request
Follow-on Credit	CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds: ■ **reportGroup** field in the follow-on credit request ■ Report group value that was used for the capture that is being credited ■ Report group value that was used for the authorization request

Retail POS Data

See *Card-Present Processing Using the Simple Order API*.

Secure Data

See "Payment Tokenization," page 199.

Service Fees

See *Service Fee Processing Using the Simple Order API*.

Soft Descriptors

See "Merchant Descriptors," page 140.

Split Dial/Route

See "Forced Captures," page 126.

Split Shipments

Services:

- Authorization
- Capture

Processors:

- CyberSource through VisaNet

> **!**
> **Important**
>
> Split shipments are not available for Mastercard transactions in the IDR currency on CyberSource through VisaNet.

- GPN: only for acquiring merchants

The split shipment feature enables you to split an order into multiple shipments with multiple captures.

> **Note**
>
> *Multiple partial captures* and *split shipments* are not the same feature.
>
> - The multiple partial captures feature is provided by the processor. This feature enables you to request multiple partial captures for one authorization. For more information, see "Multiple Partial Captures," page 59.
>
> - The split shipments feature is provided by CyberSource. This feature supports three different scenarios: multiple authorizations, multiple captures, and multiple authorizations with multiple captures.

Benefits of Using Split Shipments

The benefits of using split shipments are:

- All the transactions for a split shipment are linked together in the Business Center and in reports.
- When you split an order into multiple shipments with multiple captures, you do not need to request additional authorizations; CyberSource takes care of the additional authorizations for you.

Requirements

The requirements for using split shipments are:

- You must be a GPN acquiring merchant or use CyberSource through VisaNet.
- You must contact CyberSource Customer Support to have your account configured for this feature.

How Split Shipments Work

Additional Authorizations

When you need an additional authorization for an order, you can use the link-to-request field to link the additional authorization to the first authorization. For the additional authorization, you must submit an authorization request that includes the link-to-request field in addition to the basic fields required for every authorization request. The additional authorization is linked to the original authorization in the Business Center and in reports. The captures for these authorizations are also linked to the original authorization in the Business Center and in reports.

For an additional authorization on CyberSource through VisaNet, your authorization request must include subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

For scenarios that use an additional authorization, see the following sections:

- "One Authorization and One Sale," page 216
- "Two Authorizations and One Capture," page 219

For examples that use an additional authorization, see:

- Name-value pair examples: "Split Shipment Examples," page 342
- XML examples: "Split Shipment Examples," page 365

Additional Captures

When you need an additional capture for an order, CyberSource performs a system-generated authorization for the additional capture request, using the payment data from the original authorization. The system-generated authorization is linked to the original authorization in the Business Center and in reports. The captures are linked to the authorizations in the Business Center and in reports through the request IDs as with any capture.

On GPN, the system-generated authorization uses the same authorization indicator as the original authorization. For more information, see "Final Authorization Indicator," page 121.

For scenarios that use an additional capture, see the following sections:

- "One Authorization and Two Captures," page 217
- "Multiple Captures in a Batch File," page 218

For examples that use an additional capture, see:

- Name-value pair examples: "Split Shipment Examples," page 342
- XML examples: "Split Shipment Examples," page 365

Split Shipment Scenarios

One Authorization and One Sale

In this scenario, your customer orders a product that is not available yet.

1 You request an authorization to ensure that funds are available.

The product is not available for immediate shipment, so you wait for the product to become available.

2 After the product becomes available, you ship the product and request a sale.

For the second authorization, you must submit an authorization request that includes the link-to-request field in addition to the basic fields required for every authorization request. Set the link-to-request field to the request ID from the first authorization's reply:

First Authorization Reply Message: `requestID=SWVdPS5IM`

Second Authorization Request: `linkToRequest=SWVdPS5IM`

Including the link-to-request field in your authorization request triggers the split shipment functionality. Because you are requesting the second authorization and capture together, you do not need to include the request ID in your capture request.

3   CyberSource tries to link the second authorization request to the first authorization:

- If the link-to-request value is valid, the second authorization is linked to the original authorization in the Business Center and in reports.

- If the link-to-request value is not valid, the second authorization is not linked to the original authorization in the Business Center and in reports.

4   CyberSource links the capture request:

- If the link-to-request value for the second authorization was valid, all three transactions (first authorization, second authorization, capture) are linked together in the Business Center and in reports.

- If the link-to-request value for the second authorization was not valid, the second authorization and capture are linked to each other in the Business Center and in reports, but they are not linked to the first authorization.

One Authorization and Two Captures

In this scenario, your customer orders multiple products, one of which is not available yet.

1   You request an authorization to ensure that funds are available.

2   You ship the available products and request a capture for the amount of the shipped products.

One of the products is not available for immediate shipment, so you ship the available products and wait for the remaining product to become available.

3   After the remaining product becomes available, you ship the product and request a capture for the amount of that product.

4   CyberSource performs a system-generated authorization for the second capture request.

Because your account is enabled for split shipment, instead of rejecting the capture request as a duplicate capture, CyberSource processes the capture request as a split shipment request.

The system-generated authorization is linked to the original authorization in the Business Center and in reports.

5   CyberSource links the capture request.

The capture is linked to the authorizations in the Business Center and in reports through the request IDs as with any capture. All four transactions (first authorization, system-generated authorization, first capture, second capture) are linked together in the Business Center and in reports.

6   You get the status of the second capture request and its associated system-generated authorization.

See "Obtaining the Status of a System-Generated Authorization," page 220.

Multiple Captures in a Batch File

You can also request authorizations in a batch file.

Note

1   You create and upload a batch file using one of these methods:

- Business Center Transaction Batch Functionality: This functionality is described in the *Offline Transaction File Submission Implementation Guide* and in the Online Help for the Business Center.

- Offline Transaction File Submission System: This system is described in the *Offline Transaction File Submission Implementation Guide*.

2   CyberSource processes the batch file.

3   You get the status of your batch requests by viewing the Batch Submission Detail Report.

Get the report by using one of these methods, both of which are described in the *Offline Transaction File Submission Implementation Guide:*

- View the report on the Business Center.
- Download the report programmatically.

4   You get the status of your split shipment transactions.

Two Authorizations and One Capture

In this scenario, your customer orders a product that is not available yet.

1 You request an authorization to ensure that funds are available.

The product is not available for immediate shipment, so you wait for the product to become available.

2 After the product becomes available, you request a second authorization to ensure that funds are still available. The authorization request must include:

  ■ Basic fields required for every authorization request.

  ■ Link-to-request field. Set the value for this field to the request ID from the first authorization's reply:

    First Authorization Reply Message: `requestID=SWVdPS5IM`

    Second Authorization Request: `linkToRequest=SWVdPS5IM`

    Including the link-to-request field in your authorization request triggers the split shipment functionality.

  ■ On CyberSource through VisaNet: subsequent authorization fields as described in "Merchant-Initiated Transactions," page 181.

3 CyberSource tries to link the second authorization request to the first authorization:

  ■ If the link-to-request value is valid, the second authorization is linked to the original authorization in the Business Center and in reports.

  ■ If the link-to-request value is not valid, the second authorization is not linked to the original authorization in the Business Center and in reports.

4 You ship the product and request a capture.

Set the request ID in the capture request to the request ID from the second authorization's reply:

Second Authorization Reply Message: `requestID=sl39cmdSlkJ`

Capture Request: `ccCaptureService_authRequestID=sl39cmdSlkJ`

5 CyberSource links the capture request:

  ■ If the link-to-request value for the second authorization was valid, all three transactions (first authorization, second authorization, capture) are linked together in the Business Center and in reports.

  ■ If the link-to-request value for the second authorization was not valid, the second authorization and capture are linked to each other in the Business Center and in reports, but they are not linked to the first authorization.

Obtaining the Status of a System-Generated Authorization

A system-generated authorization is not performed in real time. The reply message that you receive from CyberSource simply indicates that the request was received; it does not indicate whether the system-generated authorization was approved or declined. A system-generated authorization can be declined for the same reasons that a regular authorization can be declined.

CyberSource recommends that you use one of the methods described in the following table to get the status of the system-generated authorization request before shipping the product.

Table 64   Methods for Obtaining the Status of a System-Generated Authorization

Method	Description
Business Center	Use the capture request ID to search for the second capture. The details for all related transactions are displayed on the **Transaction Search Details** page. It can take a maximum of six hours for the status of the system-generated authorization request to be available.
On-Demand Single Transaction Report	This report is described in the *Reporting Developer Guide*. You must use version 1.3 or later and include the parameter **includeExtendedDetail** in your query. It can take a maximum of six hours for the status of the system-generated authorization request to be available.
Transaction Exception Detail Report	This report is described in the *Reporting Developer Guide*. CyberSource recommends that you use this report on a daily basis to identify transactions that have been declined.

Additional Information

For descriptions of the required fields for authorization and capture requests, and to see which fields are optional, see Appendix A, "API Fields," on page 232.

For examples of split shipment requests and replies, see:

- Name-value pair examples: "Split Shipment Examples," page 342
- XML examples: "Split Shipment Examples," page 365

Subscriptions

See "Recurring Billing," page 202.

Tokenization

> **Note**   *Payment network tokenization* and CyberSource *payment tokenization* are not the same feature.
>
> - With payment network tokenization, the token is created by a token service provider and can be used throughout the financial network.
>
> - With CyberSource payment tokenization, the token is created by CyberSource and can be used only with CyberSource services.

See "Payment Network Tokenization," page 199, and "Payment Tokenization," page 199.

Type II Cards

See *Level II and Level III Processing Using the Simple Order API*.

Verbal Authorizations

See "Verbal Authorizations," page 85.

Verified by Visa

See "Payer Authentication," page 184.

Visa Bill Payments

Services:

- Authorization
- Credit

Processors:

- Chase Paymentech Solutions
- FDC Compass
- FDC Nashville Global
- FDMS Nashville
- GPN
- OmniPay-Ireland: OmniPay-Ireland is the CyberSource name for HSBC International.
- TSYS Acquiring Solutions

Visa provides a Bill Payment program that enables customers to use their Visa cards to pay their bills. When you participate in this program, Visa requests that you flag the bill payments and credits so they can be easily identified. To flag these transactions, include the **ccAuthService_billPayment** field in your transaction requests.

Although CyberSource accepts the bill payment indicator no matter which processor you are using, do not use this indicator if you have not signed up with Visa to participate in the program.

Visa Checkout

See:

- *Getting Started with Visa Checkout*
- "Creating an Authorization Request," page 34
- "Visa Checkout Examples," page 348 (NVP)
- "Visa Checkout Examples," page 375 (XML)

Visa Debt Repayments

Services:

■ Authorization

■ Credit

Processors:

■ FDC Nashville Global

■ FDMS Nashville

■ GPN

Visa provides a Debt Repayment program that enables customers to use their Visa debit cards to make a payment towards an existing contractual loan. The types of loans that can qualify for this program are:

■ Consumer auto loans

■ Consumer credit cards

■ Consumer mortgages

■ Student loans

To participate in this program, contact your processor for details and requirements.

When you participate in this program, Visa requests that you flag the debt repayments and credits so they can be easily identified. To flag these transactions, include these fields in your transaction requests:

■ ccAuthService_billPayment

■ debtIndicator

Zero Amount Authorizations

Service:

- Authorization

Processors and card types:

- See the following table.

Table 65   Processors That Support Zero Amount Authorizations

Processor	AVS	CVN	Card Types and Notes
AIBMS	Yes	Yes	- Visa - Mastercard For zero amount authorizations on AIBMS, the commerce indicator must be `internet` or `moto`.
American Express Direct	Yes	No	- American Express All currencies that are supported for standard authorizations for American Express Direct are also supported for zero amount authorizations.
Barclays	Yes	Yes	- Visa - Mastercard All currencies that are supported for standard authorizations for Barclays are also supported for zero amount authorizations. CyberSource rounds the amount to the correct number of decimal places for the currency. For zero amount authorizations on Barclays, the commerce indicator must be `internet` or `moto`. Visa Electron cards are not supported for zero amount authorizations on Barclays.
Chase Paymentech Solutions	Yes	Yes	- Visa - Mastercard - Diners Club
CyberSource through VisaNet	Yes	Yes	- Visa - Mastercard For CyberSource through VisaNet, zero amount authorizations are supported for internet, moto, and card-present transactions. Do not try to perform a zero amount authorization for a recurring, installment, or payer authorization transaction.

Table 65   Processors That Support Zero Amount Authorizations (Continued)

Processor	AVS	CVN	Card Types and Notes
Elavon	Yes	Yes	■ Visa ■ Mastercard ■ Maestro (UK Domestic) ■ Maestro (International) All currencies that are supported for standard authorizations for Elavon are also supported for zero amount authorizations.
FDC Compass	Yes	Yes	■ Visa ■ Mastercard ■ American Express ■ Diners Club
FDC Nashville Global	Yes	Yes for all card types except American Express	■ Visa ■ Mastercard ■ American Express ■ Discover ■ Diners Club For a zero amount authorization on FDC Nashville Global: ■ For Visa, Mastercard, and American Express, all currencies that are supported for standard authorizations are also supported for zero amount authorizations. ■ For Discover and Diners Club, only USD is supported for zero amount authorizations.
FDMS Nashville	Yes	Yes	■ Visa
FDMS South	Yes	Yes for Visa. No for all other card types.	■ Visa ■ Mastercard ■ American Express ■ Diners Club ■ Discover
GPN	Yes	Yes for all card types except American Express	■ Visa ■ Mastercard ■ American Express: CVN is not supported for zero amount authorizations with American Express. ■ Discover ■ JCB

Table 65   Processors That Support Zero Amount Authorizations (Continued)

Processor	AVS	CVN	Card Types and Notes
HBoS	Yes	Yes	■ Visa ■ Mastercard For zero amount authorizations on HBoS, the commerce indicator must be `internet` or `moto`.
HSBC HSBC is the CyberSource name for HSBC U.K.	Yes	Yes	■ Visa ■ Mastercard ■ Maestro (UK Domestic) ■ Maestro (International) For zero amount authorizations on HSBC: ■ The commerce indicator must be `internet` or `moto`. ■ The authorization code is not returned.
JCN Gateway	No	Yes	■ Visa ■ Mastercard ■ American Express ■ Diners Club ■ JCB ■ NICOS house card ■ ORICO house card
Litle	Yes	Yes	■ Visa ■ Mastercard ■ American Express ■ Discover ■ Diners Club ■ JCB
Lloyds-OmniPay	Yes	Yes	■ Visa ■ Mastercard For zero amount authorizations on Lloyds-OmniPay, the commerce indicator must be `internet` or `moto`.
LloydsTSB Cardnet	Yes	Yes	■ Visa ■ Mastercard For zero amount authorizations on LloydsTSB Cardnet, the commerce indicator must be `internet` or `moto`.

Table 65   Processors That Support Zero Amount Authorizations (Continued)

Processor	AVS	CVN	Card Types and Notes
Moneris	Yes	Yes	■ Visa ■ Mastercard
OmniPay Direct	Yes	Yes	Bank of America Merchant Services: ■ Visa ■ Mastercard ■ Maestro (UK Domestic) ■ Maestro (International) First Data Merchant Solutions (Europe): ■ Visa ■ Mastercard ■ Discover ■ Diners Club ■ Maestro (UK Domestic) ■ Maestro (International) Global Payments International Acquiring: ■ Visa ■ Mastercard ■ Maestro (UK Domestic) ■ Maestro (International)
OmniPay-Ireland OmniPay-Ireland is the CyberSource name for HSBC International.	Yes	Yes	■ Visa ■ Mastercard
RBS WorldPay Atlanta	Yes	Yes	■ Visa ■ Mastercard ■ Diners Club

Table 65   Processors That Support Zero Amount Authorizations (Continued)

Processor	AVS	CVN	Card Types and Notes
Streamline	Yes	Yes	■ Visa ■ Mastercard ■ Maestro (International) ■ Maestro (UK Domestic) ■ Carte Bleue ■ Dankort All currencies that are supported for standard authorizations for Streamline are also supported for zero amount authorizations. For a zero amount authorization: ■ The commerce indicator must be `internet` or `moto`. ■ Payer authentication is not supported.
TSYS Acquiring Solutions	Yes	Yes for Visa and Mastercard. No for American Express and Discover.	■ Visa ■ Mastercard ■ American Express: CVN is not supported for zero amount authorizations with American Express. ■ Discover: CVN is not supported for zero amount authorizations with Discover.

Authorizing a payment for a zero amount shows whether a credit card account is valid and whether the card is lost or stolen. You cannot capture a zero amount authorization.

Testing the Credit Card Services

To ensure that your requests are processed correctly, you must test the basic success and error conditions for each CyberSource service you plan to use.

Requirements for Testing

⚠️ **Important**	Before you can test, you must contact CyberSource Customer Support to activate the credit card services and configure your account for testing. You must also contact your processor to set up your processor account.

- Use your regular CyberSource merchant ID when you test your system.

- Unless otherwise specified, use test credit card numbers, not real ones. See Table 66, "Test Credit Card Numbers," on page 230.

- Use a real combination for the city, state, and postal code.

- Use a real combination for the area code and telephone number.

- Use a nonexistent account and domain name for the customer's email address.

- When testing an Ingenico ePayments country-specific credit card, such as Italy's Carta Si, specify the appropriate country code when sending the customer's address and specify the currency used in that country.

✏️ **Note**	Ingenico ePayments was previously called *Global Collect*.

- When testing the Simple Order API, use the test URL:

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

Note	When you test captures on Ingenico ePayments, you must capture the full amount of the authorization. Although a capture request for a partial amount is not rejected during testing, it will be rejected by the processor in production. Ingenico ePayments was previously called *Global Collect*.

Testing the Services

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

Table 66   Test Credit Card Numbers

Credit Card Type	Test Account Number (Remove spaces when sending to CyberSource.)
American Express	3782 8224 6310 005
Discover	6011 1111 1111 1117
JCB	3566 1111 1111 1113
Maestro (International)	5033 9619 8909 17 5868 2416 0825 5333 38
Maestro (UK Domestic)	6759 4111 0000 0008 6759 5600 4500 5727 054 5641 8211 1116 6669 **Note** Effective May 2011, the issue number is no longer required for Maestro (UK Domestic) transactions.
Mastercard	5555 5555 5555 4444
UATP	1354 1234 5678 911
Visa	4111 1111 1111 1111

Using Amounts to Simulate Errors

You can simulate the CyberSource error messages by requesting authorization, capture, or credit services with specific amounts that trigger the error messages. These triggers work only on the test server, not on the production server. Each payment processor uses its own error messages.

For trigger amounts and responses, see *Simple Order API and SOAP Toolkit API Testing Information page*.

Testing American Express Card Verification

Before using CVN with American Express, CyberSource strongly recommends that you perform this procedure.

To test American Express card verification:

Step 1 Contact CyberSource Customer Support to have your account configured for CVN. Until you do this, you will receive a `1` in the **ccAuthReply_cvCode** reply field.

Step 2 Test your system in production using a small currency amount, such as one currency unit. Instead of using the test account numbers, use a real credit card account number, and send an incorrect CVN in the request for authorization. The card should be refused and the request declined.

API Fields

Formatting Restrictions

Unless otherwise noted, all field names are case sensitive and all fields accept special characters such as @, #, and %.

Note

The values of the **item_#_** fields must not contain carets (^) or colons (:) because these characters are reserved for use by the CyberSource services.

Values for request-level and item-level fields must not contain new lines or carriage returns. However, they can contain embedded spaces and any other printable characters. CyberSource removes all leading and trailing spaces.

Atos
The **billTo_** fields must not contain colons (:).

Moneris
Values for request-level and item-level fields must not contain these special characters: ampersands (&), single quotes ('), double quotes ("), less than signs (<), and greater than signs (>).

Data Type Definitions

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

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

Numbered Elements

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

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

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

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

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

XML Schema ElementNames	Corresponding Name-Value Pair Field Names

`<item id="0">`
`  <unitPrice>`
`  <quantity>`
`</item>`
	item_0_unitPrice
	item_0_quantity

`<item id="1">`
`  <unitPrice>`
`  <quantity>`
`</item>`
	item_1_unitPrice
	item_1_quantity

![!] **Important**

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

Request Fields

See *Getting Started with CyberSource Advanced for the Simple Order API* for a description of how name-value pair names relate to their corresponding XML element names.

> **Note**
> When you use Payment Tokenization or Recurring Billing and you include a subscription ID in your request, many of the fields in the following table that are normally required for an authorization or credit become optional. See "Payment Tokenization," page 199, and "Recurring Billing," page 202.

Table 67   Request Fields

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
authIndicator	Flag that specifies the purpose of the authorization. Possible values: ■ `0`: Preauthorization ■ `1`: Final authorization To set the default for this field, contact CyberSource Customer Support. See "Final Authorization Indicator," page 121. ***Barclays and Elavon*** The default for Barclays and Elavon is `1` (final authorization). To change the default for this field, contact CyberSource Customer Support. ***CyberSource through VisaNet*** When the value for this field is `0`, it corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR0 ■ Position: 164 ■ Field: Additional Authorization Indicators When the value for this field is `1`, it does not correspond to any data in the TC 33 capture file.	ccAuthService (Optional for Mastercard and Maestro transactions; not used for other card types)	String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
balanceInquiry	Flag indicating whether to return balance information. See "Balance Inquiries," page 111. Possible values: ■ `true` ■ `false`	ccAuthService (Required for a balance inquiry; otherwise, not used.)	String (5)
billTo_buildingNumber	Building number in the street address. For example, if the street address is: Rua da Quitanda 187 then the building number is 187. This field is supported only for: ■ Cielo transactions. ■ Redecard customer validation with CyberSource Latin American Processing.	ccAuthService (O for Cielo. R for Redecard customer validation with CyberSource Latin American Processing. Otherwise, not used.)	String (256)
billTo_city	City of the billing address. ***Atos*** This field must not contain colons (**:**). ***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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2] ccDCCService (O)	Atos: String (32) All other processors: String (50)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_company	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.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (60)
billTo_country	Country of the billing address. Use the two-character *ISO Standard Country Codes*. ***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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2] ccDCCService (O)	String (2)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_customerID	Your identifier for the customer. When a subscription or customer profile is being created, the maximum length for this field for most processors is 30. Otherwise, the maximum length is 100. *Comercio Latino* For recurring payments in Mexico, the value is the customer's contract number. **Note** Before you request the authorization, you must inform the issuer of the customer contract numbers that will be used for recurring transactions. *Litle* For a follow-on credit with Litle, CyberSource checks the following locations, in the order given, for a customer account ID value and uses the first value it finds: 1 **billTo_customerID** value in the follow-on credit request 2 Customer account ID value that was used for the capture that is being credited 3 Customer account ID value that was used for the original authorization If a customer account ID value cannot be found in any of these locations, then no value is used.	ccAuthService (Required for recurring transactions in Mexico on Comercio Latino; otherwise, optional.) ccCaptureService (O) ccCreditService (O)	Comercio Latino: String (20) All other processors: String (100)
billTo_district	Customer's neighborhood, community, or region (a *barrio* in Brazil) within the city or municipality. This field is available only on Cielo.	ccAuthService (O)	String (50)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_email	Customer's email address, including the full domain name. ***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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2] ccDCCService (O)	String (255)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_firstName	Customer's first name. This name must be the same as the name on the card. ***CyberSource Latin American Processing*** **Important** For an authorization request, CyberSource Latin American Processing concatenates **billTo_firstName** and **billTo_lastName**. If the concatenated value exceeds 30 characters, CyberSource Latin American Processing declines the authorization request. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this field description is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports. ***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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2] ccDCCService (O)	CyberSource Latin American Processing: see field description Litle: String (25) All other processors: String (60)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_hostname	DNS resolved hostname from **billTo_ipAddress**.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (60)
billTo_httpBrowserType	Customer's browser as identified from the HTTP header data. For example, Mozilla is the value that identifies the Netscape browser.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (40)
billTo_ipAddress	Customer's IP address.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_lastName	Customer's last name. This name must be the same as the name on the card. ***CyberSource Latin American Processing*** **Important** For an authorization request, CyberSource Latin American Processing concatenates **billTo_firstName** and **billTo_lastName**. If the concatenated value exceeds 30 characters, CyberSource Latin American Processing declines the authorization request. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.The information in this field description is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports. ***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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2] ccDCCService (O)	CyberSource Latin American Processing: see field description Litle: String (25) All other processors: String (60)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_personalID	Personal identifier. This field is supported only for Redecard in Brazil for CyberSource Latin American Processing. Set this field to the Cadastro de Pessoas Fisicas (CPF), which is required for AVS for Redecard in Brazil. **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.The information in this field description is for the specific processing connection called *CyberSource Latin American Processing.* It is not for any other Latin American processors that CyberSource supports.	ccAuthService (See the field description.)	String (26)
billTo_phoneNumber	Customer's phone number. CyberSource recommends that you include the country code when the order is from outside the U.S. ***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.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) ccDCCService (O)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_postalCode	Postal code for the billing address. The postal code must consist of 5 to 9 digits. When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] **Example** A1B 2C3 ***American Express Direct*** Before sending the postal code to the processor, CyberSource removes all non-alphanumeric characters and, if the remaining value is longer than nine characters, truncates the value starting from the right side. ***Atos*** This field must not contain colons (**:**). ***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.	ccAuthService (Required when the billing country is the U.S. or Canada; otherwise, optional.)[2] ccCaptureService (O) ccCreditService (Required when the billing country is the U.S. or Canada; otherwise, optional.)[1,2] ccDCCService (O)	Comercio Latino and CyberSource through VisaNet: String (9) All other processors: String (10)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_state	State or province of the billing address. Use the *State, Province, and Territory Codes for the United States and Canada*. ***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.	ccAuthService (Required when the billing country is the U.S. or Canada; otherwise, optional.)[2] ccCaptureService (O) ccCreditService (Required when the billing country is the U.S. or Canada; otherwise, optional.)[1,2] ccDCCService (O)	String (2)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_street1	First line of the billing street address as it appears on the credit card issuer's records. ***Atos*** This field must not contain colons (**:**). ***CyberSource through VisaNet*** **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 also affect risk decisions and chargebacks. 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.	ccAuthService (R)[2] ccCaptureService (O) ccCreditService (R)[1,2]	Atos: String (29) CyberSource through VisaNet: String (40) Litle: String (35) Moneris: String (50) All other processors: String (60)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_street2	Additional address information. **Example** Attention: Accounts Payable ***Atos*** This field must not contain colons (**:**). ***Chase Paymentech Solutions, FDC Compass, and TSYS Acquiring Solutions*** This value is used for AVS. ***CyberSource through VisaNet*** **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 also affect risk decisions and chargebacks. 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.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	Atos: String (29) CyberSource through VisaNet: String (40) Litle: String (35) Moneris: String (50) All other processors: String (60)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
businessRules_ declineAVSFlags	List of AVS flags that cause the request to be declined for AVS reasons. Use a space to separate the flags in the list. **Important** To receive declines for the AVS code N, include the value `N` in the list.	ccAuthService (O)	String (255)
businessRules_ ignoreAVSResult	Flag for a sale request that indicates whether to allow the capture service to run even when the authorization receives an AVS decline. Possible values: ▪ `true`: Ignore the results of AVS checking and run the capture service. ▪ `false` (default): If the authorization receives an AVS decline, do not run the capture service. When the value of this field is `true`, the list in the **businessRules_declineAVSFlags** field is ignored.	ccAuthService (O)	String (5)
businessRules_ ignoreCVResult	Flag for a sale request that indicates whether to allow the capture service to run even when the authorization receives a CVN decline, as indicated by a **ccAuthReply_cvCode** value of `D` or `N`. Possible values: ▪ `true`: Ignore the results of CVN checking and run the capture service. ▪ `false` (default): If the authorization receives a CVN decline, do not run the capture service.	ccAuthService (O)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_ accountEncoderID	Identifier for the issuing bank that provided the customer's encoded account number. Contact your processor for the bank's ID. See "Encoded Account Numbers," page 120.	ccAuthService (Required when processing encoded account numbers; otherwise, not used.) ccCreditService (Required when processing encoded account numbers; otherwise, not used.)[1]	String (3)
card_accountNumber	Customer's credit card number. ***Encoded Account Numbers*** When processing encoded account numbers, use this field for the encoded account number. ***DCC for First Data*** Set this to the first 6 to 10 digits of the credit card number.	ccAuthService (R) ccCreditService (R)[1] ccDCCService (R)	String with numbers only (20)
card_cardType	Type of card to authorize. See Appendix F, "Card Types," on page 385 for a list of valid values. To see which cards can be handled by each processor, see "Payment Processors," page 26.	ccAuthService ccCreditService[1] **Important** CyberSource strongly recommends that you send the card type even if it is optional for your processor and card type. Omitting the card type can cause the transaction to be processed with the wrong card type.	String (3)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67 **Request Fields (Continued)**

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_cvIndicator	Flag indicating whether a CVN code was sent. Possible values: ■ `0` (default): CVN service not requested. CyberSource uses this default value when you do not include **card_cvNumber** in the request. ■ `1` (default): CVN service requested and supported. CyberSource uses this default value when you include **card_cvNumber** in the request. ■ `2`: CVN on credit card is illegible. ■ `9`: CVN was not imprinted on credit card.	ccAuthService (O)	String with numbers only (1)
card_cvNumber	CVN. See "Card Verification Numbers (CVNs)," page 81, for a list of processors that support CVN. ***Ingenico ePayments*** Do not include this field when **ccAuthService_commerceIndicator**=`recurring`. **Note** Ingenico ePayments was previously called *Global Collect*.	ccAuthService (O)	String with numbers only (4)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_expirationMonth	Two-digit month in which the credit card expires. Format: MM. Possible values: 01 through 12. ***Barclays and Streamline*** For Maestro (UK Domestic) and Maestro (International) cards on Barclays and Streamline, this must be a valid value (01 through 12) but is not required to be a valid expiration date. In other words, an expiration date that is in the past does not cause CyberSource to reject the request. However, an invalid expiration date might cause the issuer to reject your request. ***Encoded Account Numbers*** For encoded account numbers (**card_cardType**=039), use 12 if there is no expiration date available.	ccAuthService (R)[2] ccCreditService (R)[1,2] ccDCCService (O)	String (2)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_expirationYear	Four-digit year in which the credit card expires. Format: YYYY. **Barclays and Streamline** For Maestro (UK Domestic) and Maestro (International) cards on Barclays and Streamline, this must be a valid value (`1900` through `3000`) but is not required to be a valid expiration date. In other words, an expiration date that is in the past does not cause CyberSource to reject the request. However, an invalid expiration date might cause the issuer to reject your request. **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. **Encoded Account Numbers** For encoded account numbers (**card_cardType**=`039`), if there is no expiration date available, use `2021`.	ccAuthService (R)[2] ccCreditService (R)[1,2] ccDCCService (O)	FDC Nashville Global and FDMS South: String (See description) All other processors: String (4)
card_issueNumber	Number of times a Maestro (UK Domestic) card has been issued to the account holder. The card might or might not have an issue number. The number can consist of one or two digits, and the first digit might be a zero. When you include this value in your request, 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. **Note** The issue number is not required for Maestro (UK Domestic) transactions.	ccAuthService (O) ccCreditService (O)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_startMonth	Month of the start of the Maestro (UK Domestic) card validity period. 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. **Note** The start date is not required for Maestro (UK Domestic) transactions.	ccAuthService (O) ccCreditService (O)	String (2)
card_startYear	Year of the start of the Maestro (UK Domestic) card validity period. Do not include the field, even with a blank value, if the card is not a Maestro (UK Domestic) card. Format: YYYY. **Note** The start date is not required for Maestro (UK Domestic) transactions.	ccAuthService (O) ccCreditService (O)	String (4)
ccAuthReversalService _authRequestID	Request ID for the authorization that you want to reverse.	ccAuthReversal Service (R)	String (26)
ccAuthReversalService _authRequestToken	Value of the request token returned from a previous request for **ccAuthService**. The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	ccAuthReversal Service (O)	String (256)
ccAuthReversalService _reversalReason	Reason for the authorization reversal. Possible value: ■ 34: Suspected fraud CyberSource ignores this field for processors that do not support this value.	ccAuthReversal Service (O)	String (3)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthReversalService _run	Whether to include **ccAuthReversalService** in your request. Possible values: ■ `true`: Include the service in your request. ■ `false` (default): Do not include the service in your request.	ccAuthReversal Service (R)	String (5)
ccAuthService_ aggregatorID	Value that identifies you as a payment aggregator. Get this value from the processor. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR6 ■ Position: 95-105 ■ Field: Mastercard Payment Facilitator ID ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: R for Mastercard aggregator transactions and for American Express aggregator authorizations; otherwise, not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (20) CyberSource through VisaNet with American Express: String (20) CyberSource through VisaNet with Mastercard: String (11) FDC Compass: String (20) FDC Nashville Global: String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ aggregatorName	Your payment aggregator business name. See "Aggregator Support," page 101. ***American Express Direct*** The maximum length of the aggregator name depends on the length of the sub-merchant name. The combined length for both values must not exceed 36 characters. ***CyberSource through VisaNet*** With American Express, the maximum length of the aggregator name depends on the length of the sub-merchant name. The combined length for both values must not exceed 36 characters. The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: R for American Express aggregator authorizations; otherwise, not used. FDC Compass: R for Mastercard aggregator transactions; otherwise, not used. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (see description) CyberSource through VisaNet: String (see description) FDC Compass: String (37) FDC Nashville Global: String (12)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ authType	Authorization type. Possible values: ■ AUTOCAPTURE: automatic capture; see "Automatic Captures," page 33. ■ STANDARDCAPTURE: standard capture; see "Automatic Captures," page 33. ■ VERBAL: forced capture; see "Forced Captures," page 126. ***Asia, Middle East, and Africa Gateway; Cielo; Comercio Latino; and CyberSource Latin American Processing*** Set this field to AUTOCAPTURE and include it in a bundled request to indicate that you are requesting an automatic capture. If your account is configured to enable automatic captures, set this field to STANDARDCAPTURE and include it in a standard authorization or bundled request to indicate that you are overriding an automatic capture. For more information, see "Automatic Captures," page 33. ***Forced Capture*** Set this field to VERBAL and include it in the authorization request to indicate that you are performing a forced capture; therefore, you receive the authorization code outside the CyberSource system. For more information, see "Forced Captures," page 126.	ccAuthService (See description)	Comercio Latino: String (15) All other processors: String (11)
ccAuthService_ billPayment	Flag indicating that this is a payment for a bill or for an existing contractual loan. See "Visa Bill Payments," page 222, and "Visa Debt Repayments," page 223, for lists of processors that support these features. This value is case sensitive. Possible values: ■ true: Bill payment or loan payment. ■ false (default): Not a bill payment or loan payment.	ccAuthService (O)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ captureDate	Date on which you want the capture to occur. This field is supported only for CyberSource through VisaNet. Format: MMDD	ccAuthService (O)	String (4)
ccAuthService_cavv	Cardholder authentication verification value (CAVV). For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (40)
ccAuthService_ cavvAlgorithm	Algorithm used to generate the CAVV for Verified by Visa or the UCAF authentication data for Mastercard SecureCode. For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (1)
ccAuthService_ commerceIndicator	Type of transaction. Some payment card companies use this information when determining discount rates. When you omit this field for Ingenico ePayments, the processor uses the default transaction type they have on file for you instead of the default value listed here. *Ingenico ePayments* Ingenico ePayments was previously called *Global Collect*. *Payer Authentication Transactions* For the possible values and requirements, see "Payer Authentication," page 184. *Other Types of Transactions* See Appendix G, "Commerce Indicators," on page 387.	ccAuthService (Required for payer authentication transactions; otherwise, optional.)	String (20)
ccAuthService_eciRaw	Raw electronic commerce indicator (ECI). For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (2)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ firstRecurringPayment	Flag indicating whether this transaction is the first in a series of recurring payments. See "Recurring Payments," page 202. This field is supported only for Atos, FDC Nashville Global, and OmniPay Direct. ***Atos and OmniPay Direct*** Possible values: ■ Y: Yes, this is the first payment in a series of recurring payments. ■ N (default): No, this is not the first payment in a series of recurring payments. ***FDC Nashville Global*** Possible values: ■ TRUE: Yes, this is the first payment in a series of recurring payments. ■ FALSE (default): No, this is not the first payment in a series of recurring payments.	ccAuthService (O)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67 Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ overridePayment Method	Flag that specifies the type of account associated with the card. The cardholder provides this information during the payment process. ***Cielo and Comercio Latino*** Possible values: ■ `CR`: Credit card ■ `DB`: Debit card ***CyberSource through VisaNet*** Possible values: ■ `CH`: Checking account ■ `CR`: Credit card account ■ `SA`: Savings account This field is required for: ■ Debit transactions on Cielo and Comercio Latino. ■ Transactions with Brazilian-issued cards on CyberSource through VisaNet. **Note** Combo cards in Brazil contain credit and debit functionality in a single card. Visa systems use a credit bank identification number (BIN) for this type of card. Using the BIN to determine whether a card is debit or credit can cause transactions with these cards to be processed incorrectly. CyberSource strongly recommends that you include this field for combo card transactions.	ccAuthService (O)	String (2)
ccAuthService_ paresStatus	Payer authentication response status. For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ partialAuthIndicator	Flag indicating whether the transaction is enabled for partial authorization. When the request includes this field, this value overrides the information in your CyberSource account. Possible values: ■ `true`: Enable the transaction for partial authorization. ■ `false`: Do not enable the transaction for partial authorization. See "Partial Authorizations," page 89. ***CyberSource through VisaNet*** To set the default for this field, contact CyberSource Customer Support. The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR0 ■ Position: 164 ■ Field: Additional Authorization Indicators	ccAuthService (O)	String (5)
ccAuthService_run	Whether to include **ccAuthService** in your request. Possible values: ■ `true`: Include the service in your request. ■ `false` (default): Do not include the service in your request.	ccAuthService (R)	String (5)
ccAuthService_ verbalAuthCode	Authorization code you received from an authorization that you performed outside the CyberSource system. See "Forced Captures," page 126.	ccAuthService (Required for a forced capture; otherwise, not used.)	String (6)
ccAuthService_ veresEnrolled	Verification response enrollment status. For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (1)
ccAuthService_xid	Transaction identifier. For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (40)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67 Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_ aggregatorID	Value that identifies you as a payment aggregator. Get this value from the processor. See "Aggregator Support," page 101. **FDC Compass** This value must consist of uppercase characters.	ccCaptureService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (20) FDC Compass: String (20) FDC Nashville Global: String (15)
ccCaptureService_ aggregatorName	Your payment aggregator business name. See "Aggregator Support," page 101. **American Express Direct** The maximum length of the aggregator name depends on the length of the sub-merchant name. The combined length for both values must not exceed 36 characters. **FDC Compass** This value must consist of uppercase characters.	ccCaptureService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: not used. FDC Compass: R for Mastercard aggregator transactions; otherwise, not used. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (see description) FDC Compass: String (37) FDC Nashville Global: String (12)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_ authRequestID	Value of the request ID returned from a previous **ccAuthReply**.	ccCaptureService Required unless **ccAuthService** and **ccCaptureService** are both called in the same request.	String (26)
ccCaptureService_ authRequestToken	Value of the request token returned from a previous request for **ccAuthService**. The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	ccCaptureService (Required for Atos; otherwise, optional.) *Atos* When you request the authorization and capture services together, the capture request does not require a request token.	String (256)
ccCaptureService_ authType	Authorization type. When the transaction contains a verbally authorized transaction, this field must contain the value VERBAL.	ccCaptureService (O)	String (6)
ccCaptureService_ dpdeBillingMonth	Dynamic payment descriptor extension (DPDE) that specifies the month for which you are billing the cardholder. Depending on your business model, you might bill for a service that has already been provided, such as a telephone service, or you might bill for a service that is going to be provided, such as a subscription to investment information. This value lets the cardholder know which month the payment is for. Format: YYMM This field is supported only for JCN Gateway and is not supported for all Japanese acquirers.	ccCaptureService (O)	String (4)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_ posData	Point-of-sale data. On FDMS South, this field is required for verbal authorizations and forced captures with the American Express card type to comply with the CAPN requirements: ■ Forced capture: Obtain the value for this field from the authorization response. ■ Verbal authorization: You cannot obtain a value for this field so CyberSource uses the default value. The default value is generated by CyberSource based on various factors of the transaction such as e-commerce or not, card present or not, and swiped or keyed. See "Verbal Authorizations," page 85.	ccCaptureService (See the field description.)	String (12)
ccCaptureService_run	Whether to include **ccCaptureService** in your request. Possible values: ■ `true`: Include the service in your request. ■ `false` (default): Do not include the service in your request.	ccCaptureService (R)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_ sequence	Capture number when requesting multiple partial captures for one authorization. Used along with **ccCaptureService_totalCount** to track which capture is being processed. For example, the second of five captures would be passed to CyberSource as **ccCaptureService_sequence** = 2 and **ccCaptureService_totalCount** = 5. See "Special Request Fields for Multiple Partial Captures," page 60.	ccCaptureService (Required for multiple captures on Barclays and TSYS Acquiring Solutions. Optional for multiple captures on FDC Compass and OmniPay Direct. Otherwise, not used.)	Integer (2)
ccCaptureService_ totalCount	Total number of captures when requesting multiple partial captures for one authorization. Used along with **ccCaptureService_ sequence** to track which capture is being processed. For example, the second of five captures would be passed to CyberSource as **ccCaptureService_sequence** = 2 and **ccCaptureService_totalCount** = 5. See "Special Request Fields for Multiple Partial Captures," page 60.	ccCaptureService (Required for multiple captures on Barclays and TSYS Acquiring Solutions. Optional for multiple captures on FDC Compass and OmniPay Direct. Otherwise, not used.)	Integer (2)
ccCaptureService_ transactionID	Transaction ID (TID). On FDMS South, this field is required for verbal authorizations and forced captures with the American Express card type to comply with the CAPN requirements: ■ Forced capture: Obtain the value for this field from the authorization response. ■ Verbal authorization: You cannot obtain a value for this field so CyberSource uses the default value of 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (15 zeros). See "Verbal Authorizations," page 85, for important information about using this default value.	ccCaptureService (See the field description.)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67 Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_ verbalAuthCode	Verbally received authorization code.	ccCaptureService (O)	CCS (CAFIS): String (7) JCN Gateway: String (7) All other processors: String (6)
ccCreditService_ aggregatorID	Value that identifies you as a payment aggregator. Get this value from the processor. See "Aggregator Support," page 101. *FDC Compass* This value must consist of uppercase characters.	ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (20) FDC Compass: String (20) FDC Nashville Global: String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCreditService_ aggregatorName	Your payment aggregator business name. See "Aggregator Support," page 101. ***American Express Direct*** The maximum length of the aggregator name depends on the length of the sub-merchant name. The combined length for both values must not exceed 36 characters. ***FDC Compass*** This value must consist of uppercase characters.	ccCaptureService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: not used. FDC Compass: R for Mastercard aggregator transactions; otherwise, not used. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (see description) FDC Compass: String (37) FDC Nashville Global: String (12)
ccCreditService_ billPayment	Flag indicating whether this is a credit for a bill that the customer paid with a Visa card. See "Visa Bill Payments," page 222, for a list of processors that support bill payments with Visa. This value is case sensitive. Possible values: ▪ `true`: Credit for a bill payment. ▪ `false` (default): Not a credit for a bill payment	ccCreditService (O)	String (5)
ccCreditService_ captureRequestID	Value of the request ID returned from a previous request for **ccCaptureService**. Creates a follow-on credit by linking the credit to the previous capture. When you send this field, you do not need to send several other credit request fields. See "Crediting a Payment," page 63, for a description of follow-on credits.	ccCreditService (O)	String (26)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCreditService_ captureRequestToken	Value of the request token returned from a previous request for **ccCaptureService**. The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	ccCreditService (Required for Atos; otherwise, optional)	String (256)
ccCreditService_ commerceIndicator	Type of transaction. Use with stand-alone credits. Some payment card companies use this information when determining discount rates. Possible values: ▪ `internet` (default) ▪ `moto` ▪ `recurring` ▪ `recurring_internet` For details about these values, see Appendix G, "Commerce Indicators," on page 387.	ccCreditService (O)	String (13)
ccCreditService_ dpdeBillingMonth	Dynamic payment descriptor extension (DPDE) that specifies the month for which you are billing the cardholder. Depending on your business model, you might bill for a service that has already been provided, such as a telephone service, or you might bill for a service that is going to be provided, such as a subscription to investment information. This value lets the cardholder know which month the payment is for. Format: YYMM This field is supported only for JCN Gateway and is not supported for all Japanese acquirers.	ccCreditService (O)	String (4)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCreditService_run	Whether to include **ccCreditService** in your request. Possible values: ■ `true`: Include the service in your request. ■ `false` (default): Do not include the service in your request.	ccCreditService (R)	String (5)
ccDCCService_run	*DCC for First Data* Flag indicating whether **ccDCCService** must be called for your request. Possible values: ■ `true:` The service is included in your request. ■ `false` (default): The service is not included in your request.	ccDCCService (R)	String (5)
dcc_dccIndicator	*DCC for First Data* Flag indicating whether DCC is being used for the transaction. Possible values: ■ `1:` Converted: DCC is being used. ■ `2:` Nonconvertible: DCC cannot be used. ■ `3:` Declined: DCC could be used, but the customer declined it. For details, see "Dynamic Currency Conversion for First Data," page 115.	*DCC for First Data* ccAuthService (R if you called the DCC service for the purchase) ccCaptureService (R if you called the DCC service for the purchase) ccCreditService (R if you called the DCC service for the purchase)	String (1)
debtIndicator	Flag indicating whether this is a payment towards an existing contractual loan. See "Visa Debt Repayments," page 223, for a list of processors that support this feature. Possible values: ■ `true`: Loan payment ■ `false` (default): Not a loan payment	ccAuthService (O) ccCreditService (O)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
extendedCreditTotal Count	Number of months over which the cardholder can pay for the purchase. You can use this field when offering extended credit to a cardholder at a retail location. The cardholder provides this value. The issuer pays you for the purchase in one payment, and then the cardholder pays the issuer in the number of monthly payments specified by this value. **Note** This field is supported only for acquirers in South Africa and only for CyberSource through VisaNet.	ccAuthService (O)	String (2)
installment_amount	Amount for the current installment payment. This field is supported only for CyberSource through VisaNet. See "Installment Payments," page 128.	ccAuthService (O)	String (12)
installment_frequency	Frequency of the installment payments. This field is supported only for CyberSource through VisaNet. Possible values: ■ B: Biweekly ■ M: Monthly ■ W: Weekly See "Installment Payments," page 128.	ccAuthService (O)	String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
installment_planType	***American Express Direct, Cielo, and CyberSource Latin American Processing*** Flag indicating the type of funding for the installment plan associated with the payment. Possible values: ■ `1`: Merchant-funded installment plan ■ `2`: Issuer-funded installment plan If you do not include this field in the request, CyberSource uses the value in your CyberSource account. To change the value in your CyberSource account, contact CyberSource Customer Service. See "Installment Payments," page 128. ***CyberSource through VisaNet*** American Express-defined code that indicates the type of installment plan for this transaction. Contact American Express for: ■ Information about the kinds of installment plans that American Express provides ■ Values for this field See "Installment Payments," page 128.	ccAuthService (O) ccCaptureService (O)	CyberSource through VisaNet: String (2) All other processors: String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
installment_sequence	Installment number when making payments in installments. Used along with **installment_ totalCount** to track which payment is being processed. For example, the second of 5 payments would be passed to CyberSource as **installment_sequence** = 2 and **installment_ totalCount** = 5. See "Installment Payments," page 128. ***Chase Paymentech Solutions and FDC Compass*** This field is optional because this value is required in the merchant descriptors. See "Chase Paymentech Solutions Merchant Descriptors," page 145, and "FDC Compass Merchant Descriptors," page 156.	ccAuthService Chase Paymentech Solutions, CyberSource through VisaNet, and FDC Compass: Optional. CyberSource Latin American Processing in Brazil: Not used. All other processors: Required for installment payments	Integer (2)
installment_totalAmount	Total amount of the loan that is being paid in installments. This field is supported only for CyberSource through VisaNet. See "Installment Payments," page 128.	ccAuthService (O)	String (12)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
installment_totalCount	Total number of installments when making payments in installments. See"Installment Payments," page 128. ***Chase Paymentech Solutions and FDC Compass*** This field is optional because this value is required in the merchant descriptors. See "Chase Paymentech Solutions Merchant Descriptors," page 145, and "FDC Compass Merchant Descriptors," page 156. ***American Express Direct, Cielo, and Comercio Latino*** This value is the total number of installments you approved. ***CyberSource Latin American Processing in Brazil*** This value is the total number of installments that you approved. The default is 1. ***All Other Processors*** This value is used along with **installment_ sequence** to track which payment is being processed. For example, the second of 5 payments would be passed to CyberSource as **installment_sequence** = 2 and **installment_ totalCount** = 5.	ccAuthService Chase Paymentech Solutions, CyberSource Latin American Processing, CyberSource through VisaNet, and FDC Compass: Optional. All other processors: Required for installment payments.	Integer (2)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ amexDataTAA1 invoiceHeader_ amexDataTAA2 invoiceHeader_ amexDataTAA3 invoiceHeader_ amexDataTAA4	Four Transaction Advice Addendum (TAA) fields. These fields are used to display descriptive information about a transaction on the customer's American Express card statement. When you send TAA fields, start with **invoiceHeader_amexDataTAA1**, then **...TAA2**, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. To use these fields, contact CyberSource Customer Support to have your account enabled for this feature. For information about merchant descriptors, including which processors support this field, see "Merchant Descriptors," page 140. These fields are frequently used for Level II transactions. See *Level II and Level III Processing Using the Simple Order API*.	ccCaptureService (O) ccCreditService (O)	String (40)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ merchantDescriptor invoiceHeader_ merchantDescriptor Alternate invoiceHeader_ merchantDescriptor City invoiceHeader_ merchantDescriptor Contact invoiceHeader_ merchantDescriptor Country invoiceHeader_ merchantDescriptor PostalCode invoiceHeader_ merchantDescriptor Street	For the descriptions, used-by information, data types, and lengths for these fields, see "Merchant Descriptors," page 140.		
invoiceHeader_ salesOrganizationID	Company ID assigned to an independent sales organization. Get this value from Mastercard. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR6 ■ Position: 106-116 ■ Field: Mastercard Independent Sales Organization ID	ccAuthService (Required for Mastercard aggregator transactions on CyberSource through VisaNet; otherwise, not used.)	Nonnegative integer (11)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantCity	Sub-merchant's city. See "Aggregator Support," page 101. **_CyberSource through VisaNet_** The value for this field does not map to the TC 33 capture file[5]. **_FDC Compass_** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: R for American Express aggregator authorizations; otherwise, not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (14) CyberSource through VisaNet: String (14) FDC Compass: String (21) FDC Nashville Global: String (11)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see _Getting Started with CyberSource Advanced for the Simple Order API_.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantCountry	Sub-merchant's country. Use the two-character *ISO Standard Country Codes*. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for American Express aggregator authorizations; otherwise, not used. FDC Compass: O for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	String (3)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantEmail	Sub-merchant's email address. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** With American Express, the value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCRB ■ Position: 25-64 ■ Field: American Express Seller E-mail Address	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for all aggregator transactions with American Express; otherwise, not used. FDC Compass: O for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (40) CyberSource through VisaNet: String (40) FDC Compass: String (40) FDC Nashville Global: String (19)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantID	The ID you assigned to your sub-merchant. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** With American Express, the value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCRB ■ Position: 65-84 ■ Field: American Express Seller ID With Mastercard, the value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR6 ■ Position: 117-131 ■ Field: Mastercard Sub-Merchant ID ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: ■ O for all American Express aggregator transactions; ■ R for all Mastercard aggregator authorizations; ■ otherwise, not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.W	American Express Direct: String (20) CyberSource through VisaNet with American Express: String (20) CyberSource through VisaNet with Mastercard: String (15) FDC Compass: String (20) FDC Nashville Global: String (14)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchant MerchantID	Unique identifier assigned by the payment card company to the sub-merchant. See "Aggregator Support," page 101.	ccAuthService American Express Direct: not used. CyberSource through VisaNet: not used. FDC Compass: not used. FDC Nashville Global: O for American Express aggregator authorizations; otherwise, not used.	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantName	Sub-merchant's business name. See "Aggregator Support," page 101. ***American Express Direct*** The maximum length of the sub-merchant name depends on the length of the aggregator name. The combined length for both values must not exceed 36 characters. ***CyberSource through VisaNet*** With American Express, the maximum length of the sub-merchant name depends on the length of the aggregator name. The combined length for both values must not exceed 36 characters. The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters. ***FDC Nashville Global*** With Mastercard, the maximum length of the sub-merchant name depends on the length of the aggregator name: ■ If aggregator name length is 1 through 3, maximum sub-merchant name length is 21. ■ If aggregator name length is 4 through 7, maximum sub-merchant name length is 17. ■ If aggregator name length is 8 through 12, maximum sub-merchant name length is 12.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: R for American Express aggregator authorizations; otherwise, not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (see description) CyberSource through VisaNet: String (see description) FDC Compass with American Express: String (19) FDC Compass with Mastercard: String (37) FDC Nashville Global with American Express: String (12) FDC Nashville Global with Mastercard: String (see description)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantPostal Code	Partial postal code for the sub-merchant's address. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for American Express aggregator authorizations; otherwise, not used. FDC Compass: O for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (10) CyberSource through VisaNet: String (10) FDC Compass: String (15) FDC Nashville Global: String (9)
invoiceHeader_ submerchantRegion	Sub-merchant's region. **Example** NE indicates that the sub-merchant is in the northeast region. See "Aggregator Support," page 101.	ccAuthService American Express Direct: not used. CyberSource through VisaNet: not used. FDC Compass: not used. FDC Nashville Global: O for all aggregator authorizations; otherwise, not used.	String (3)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantState	Sub-merchant's state or province. Use the *State, Province, and Territory Codes for the United States and Canada*. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for American Express aggregator authorizations; otherwise, not used. FDC Compass: O for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	String (3)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantStreet	First line of the sub-merchant's street address. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field does not map to the TC 33 capture file[5]. ***FDC Compass*** This value must consist of uppercase characters.	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: R for American Express aggregator authorizations; otherwise, not used. FDC Compass: O for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (29) CyberSource through VisaNet: String (29) FDC Compass: String (38) FDC Nashville Global: String (25)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ submerchantTelephone Number	Sub-merchant's telephone number. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** With American Express, the value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCRB ■ Position: 5-24 ■ Field: American Express Seller Telephone Number ***FDC Compass*** This value must consist of uppercase characters. Use one of these recommended formats: NNN-NNN-NNNN NNN-AAAAAAA	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for all aggregator transactions with American Express; otherwise, not used. FDC Compass: R for all aggregator transactions. FDC Nashville Global: R for all aggregator transactions.	American Express Direct: String (20) CyberSource through VisaNet: String (20) FDC Compass: String (13) FDC Nashville Global: String (10)
issuer_additionalData	Data defined by the issuer. For more information, see Appendix K, "Formats for Discretionary Data," on page 395. This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (O) ccAuthReversalService (O) ccCaptureService (O)	String (255)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_productCode	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is `default`. See Table 84, "Product Codes," on page 409 for a list of valid values. For **ccAuthService**, when you set this field to a value other than `default` or any of the values related to shipping and/or handling, the **item_#_quantity**, **item_#_productName**, and **item_#_productSKU** fields are required. See "Numbered Elements," page 233.	ccAuthService (O) ccCaptureService (O) ccCreditService (O) ccDCCService (O)	String (255)
item_#_productName	For **ccAuthService** and **ccCaptureService**, this field is required when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling. See "Numbered Elements," page 233.	ccAuthService (See the field description.) ccCaptureService (See the field description.) ccDCCService (O)	String (255)
item_#_productSKU	Identification code for the product. For **ccAuthService** and **ccCaptureService**, this field is required when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling. See "Numbered Elements," page 233.	ccAuthService (See the field description.) ccCaptureService (See the field description.) ccDCCService (O)	String (255)
item_#_quantity	The default is `1`. For **ccAuthService** and **ccCaptureService**, this field is required when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling. See "Numbered Elements," page 233.	ccAuthService (See the field description.) ccAuthReversal Service (O) ccCaptureService (See the field description.) ccCreditService (O) ccDCCService (O)	Integer (10)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length

item_#_taxAmount	Total tax to apply to the product. This value cannot be negative. The tax amount and the unit price must be in the same currency.
	
	The tax amount field is additive. The following example uses a two-exponent currency such as USD:
	
	1 You include the following items in your request:
	`item_0_unitPrice=10.00`
	`item_0_quantity=1`
	`item_0_taxAmount=0.80`
	`item_1_unitPrice=20.00`
	`item_1_quantity=1`
	`item_1_taxAmount=1.60`
	
	2 The total amount authorized will be 32.40, not 30.00 with 2.40 of tax included.
	
	If you want to include the tax amount and also request the **taxService** service, see *Tax Calculation Service Using the Simple Order API*.
	
	This field is frequently used for Level II and Level III transactions. See *Level II and Level III Processing Using the Simple Order API*.
	
	See "Numbered Elements," page 233.
		ccAuthService (O)
		
		ccCaptureService (O)
		
		ccCreditService (O)
			String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitPrice	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 233. **Important** Some processors have specific requirements and limitations, such as maximum amounts and maximum field lengths. This information is covered in: ■ Table 12, "Authorization Information for Specific Processors," on page 37 ■ Table 16, "Capture Information for Specific Processors," on page 52 ■ Table 20, "Credit Information for Specific Processors," on page 66 *DCC for First Data* This value is the original amount in your local currency. You must include this field. You cannot use **purchaseTotals_ grandTotalAmount**. See "Dynamic Currency Conversion for First Data," page 115. *FDMS South* If you accept IDR or CLP currencies, see the entry for FDMS South in Table 12, "Authorization Information for Specific Processors," on page 37. *Zero Amount Authorizations* If your processor supports zero amount authorizations, you can set this field to 0 for the authorization to check if the card is lost or stolen. See "Zero Amount Authorizations," page 224.	ccAuthService[3] ccAuthReversal Service[3] ccCaptureService[3] ccCreditService[3]	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
jpo_bonusAmount	Japanese payment option bonus amount: Amount of the payment during the bonus month. The value must be greater than 0.	ccAuthService ccCaptureService ccCreditService Required when **jpo_paymentMethod** is 6; otherwise, not used.	Nonnegative integer (8)
jpo_bonuses	Japanese payment option bonuses: Number of bonus payments.	ccAuthService ccCaptureService ccCreditService Required when **jpo_paymentMethod** is 3 or 6; otherwise, not used.	Integer (2)
jpo_installments	Japanese payment option installments: Number of installment payments.	ccAuthService ccCaptureService ccCreditService Required when **jpo_paymentMethod** is 4 or 6; otherwise, not used.	Integer (2)
jpo_paymentMethod	Japanese payment option payment method: type of payment option. Possible values: ■ 1 (default): Single payment ■ 2: Bonus payment ■ 3: Installment bonus payment ■ 4: Installment ■ 5: Revolving repayment ■ 6: Combination of installment and bonus payment See "Japanese Payment Options," page 136.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	Integer (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
linkToRequest	Value that links the current authorization request to the original authorization request. Set this value to the request ID that was returned in the reply message from the original authorization request. This value is used for: ■ Partial authorizations: see "Partial Authorizations," page 89. ■ Split shipments: see "Split Shipments," page 214.	ccAuthService (O)	String (26)
merchantCategoryCode	Four-digit number that the payment card industry uses to classify merchants into market segments. Visa assigned one or more of these values to your business when you started accepting Visa cards. If you do not include this field in your request, CyberSource uses the value in your CyberSource account. See "Aggregator Support," page 101. ***CyberSource through VisaNet*** The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR4 ■ Position: 150-153 ■ Field: Merchant Category Code	ccAuthService ccCaptureService ccCreditService American Express Direct: R for all aggregator transactions. CyberSource through VisaNet: O for all aggregator transactions. FDC Compass: O for all aggregator authorizations; otherwise, not used. FDC Nashville Global: R for all aggregator transactions.	Integer (4)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
merchantDefinedData_ field1 to merchantDefinedData_ field20	Fields that you can use to store information. **Important** These fields have been replaced by **merchantDefinedData_mddField_1** to **100**. CyberSource recommends that you update your order management system to use the new fields. **Warning** Merchant-defined fields *must not* be used to capture personally identifying information as stated in the warning under the following field description for **merchantDefinedData_mddField_1** to **100**.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (255)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
merchantDefinedData_ mddField_1 to merchantDefinedData_ mddField_100	Fields that you can use to store information. **Important** These fields override the old merchant-defined data fields. For example, if you use the obsolete field **merchantDefinedData_field15** and the new field **merchantDefinedData_mddField_15** in the same request, the value for the new field overwrites the value for the obsolete field. **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, address, credit card number, social security number, driver's license number, state-issued identification number, passport number, and card verification numbers (CVV, CVC2, CVV2, CID, CVN). In the event CyberSource discovers that a merchant is capturing and/or transmitting personally identifying information via the merchant-defined data fields, whether or not intentionally, CyberSource will immediately suspend the merchant's account, which will result in a rejection of any and all transaction requests submitted by the merchant after the point of suspension.	ccAuthService (O) ccCaptureService (O) ccCreditService (O)	String (255)
merchantID	Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required for all credit card services.	String (30)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
merchantReference Code	Merchant-generated order reference or tracking number. CyberSource recommends that you send a unique value for each transaction so that you can perform meaningful searches for the transaction. For information about tracking orders, see *Getting Started with CyberSource Advanced for the Simple Order API*. ***FDC Nashville Global*** Certain circumstances can cause the processor to truncate this value to 15 or 17 characters for Level II and Level III processing, which can cause a discrepancy between the value you submit and the value included in some processor reports.	Required for all credit card services.	Asia, Middle East, and Africa Gateway: String (40) Atos: String (32) All other processors: String (50)
merchantTransaction Identifier	Identifier that you assign to the transaction. See "Merchant-Initiated Reversals and Voids," page 177.	ccAuthService (O) ccAuthReversal Service (O) ccCaptureService (O) ccCreditService (O) voidService (O)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
nationalNetDomestic Data	Supplementary domestic transaction information provided by the acquirer for National Net Settlement Service (NNSS) transactions. NNSS is a settlement service that Visa provides. For transactions on CyberSource through VisaNet in countries that subscribe to NNSS: ■ VisaNet clears transactions; VisaNet transfers funds to the acquirer after deducting processing fees and interchange fees. ■ VisaNet settles transactions in the local currency through a local financial institution. This field is supported only on CyberSource through VisaNet for domestic data in Colombia.	ccAuthService (O) ccAuthReversal Service (O) ccCaptureService (O) ccCreditService (O)	String (123)
orderRequestToken	The request token value returned from a previous request. This value links the previous request to the current follow-on request. This field is an encoded string that does not contain any confidential information, such as account numbers or card verification numbers. The string can contain a maximum of 256 characters.	ccAuthReversal Service (O) ccCaptureService (Required for Atos; otherwise, optional. When you request the authorization and capture services together, the capture request does not require a request token.) ccCreditService (Required for Atos; otherwise, optional.) voidService (Required for Atos; otherwise, optional.)	String (256)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
paymentSolution	Type of payment solution that is being used for the transaction. Possible Values: ■ `005`: Masterpass. This value is required for Masterpass transactions on OmniPay Direct. See "Masterpass," page 139. ■ `visacheckout`: Visa Checkout. This value is required for Visa Checkout transactions. See *Visa Checkout Using the Simple Order API*.	ccAuthService (See description.) ccAuthReversal Service[4] ccCaptureService[4] ccCreditService[4]	Masterpass: String (3) Visa Checkout: String (12)
personalID_number	Identifier for the customer. This field is supported only on the processors listed in this description. ***Comercio Latino*** Set this field to the Cadastro de Pessoas Fisicas (CPF).	ccAuthService (R)	String (18)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_environment	Operating environment. Possible values: ■ `0`: No terminal used or unknown environment. ■ `1`: On merchant premises, attended. ■ `2`: On merchant premises, unattended, or cardholder terminal. Examples: oil, kiosks, self-checkout, home computer, mobile telephone, personal digital assistant (PDA). Cardholder terminal is supported only for MasterCard transactions on CyberSource through VisaNet. ■ `3`: Off merchant premises, attended. Examples: portable POS devices at trade shows, at service calls, or in taxis. ■ `4`: Off merchant premises, unattended, or cardholder terminal. Examples: vending machines, home computer, mobile telephone, PDA. Cardholder terminal is supported only for MasterCard transactions on CyberSource through VisaNet. ■ `5`: On premises of cardholder, unattended. ■ `9`: Unknown delivery mode. ■ `S`: Electronic delivery of product. Examples: music, software, or eTickets that are downloaded over the internet. ■ `T`: Physical delivery of product. Examples: music or software that is delivered by mail or by a courier. This field is supported only for American Express Direct and CyberSource through VisaNet. *CyberSource through VisaNet* For MasterCard transactions, the only valid values are `2` and `4`.	ccAuthService (O)	String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
processorID	Value that identifies the processor/acquirer to use for the transaction. This value is supported only for CyberSource through VisaNet. Contact CyberSource Customer Support to get the value for this field.	ccAuthService (O) ccCreditService (O for stand-alone credits; otherwise, not used.)	String (3)
purchaseTotals_additionalAmount0 purchaseTotals_additionalAmount1 purchaseTotals_additionalAmount2 purchaseTotals_additionalAmount3 purchaseTotals_additionalAmount4	Additional amount. This field is supported only for American Express Direct. See "Additional Amounts," page 100.	ccCaptureService (O) ccCreditService (O)	String (12)
purchaseTotals_additionalAmountType0 purchaseTotals_additionalAmountType1 purchaseTotals_additionalAmountType2 purchaseTotals_additionalAmountType3 purchaseTotals_additionalAmountType4	Additional amount type. This field is supported only for American Express Direct. See "Additional Amounts," page 100, for a description of this feature. For the possible values for this field, see Appendix C, "Additional Amount Types," on page 377.	ccCaptureService (O) ccCreditService (O)	String (3)
purchaseTotals_currency	Currency used for the order. Use the three-character *ISO Standard Currency Codes*. For **ccAuthReversalService** and **ccCaptureService**, you must use the same currency that you used in your request for **ccAuthService**. *DCC for First Data* Your local currency. See "Dynamic Currency Conversion for First Data," page 115.	ccAuthService (R) ccAuthReversal Service (R) ccCaptureService (R) ccCreditService (R) ccDCCService (R)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_ exchangeRate	**DCC for First Data** Exchange rate returned by the DCC service. Includes a decimal point and a maximum of 4 decimal places. For details, see "Dynamic Currency Conversion for First Data," page 115.	**DCC for First Data** ccAuthService (R for DCC transactions) ccCaptureService (R for DCC transactions) ccCreditService (R for DCC transactions)	DCC for First Data: String (13)
purchaseTotals_ exchangeRateTime Stamp	**DCC for First Data** Time stamp for the exchange rate. This value is returned by the DCC service. Format: YYYYMMDD~HH:MM where ~ denotes a space. For details, see "Dynamic Currency Conversion for First Data," page 115.	**DCC for First Data** ccAuthService (R for DCC transactions) ccCaptureService (R for DCC transactions) ccCreditService (R for DCC transactions)	String (14)
purchaseTotals_ foreignAmount	**DCC for First Data** Converted amount returned by the DCC service. For details, see "Dynamic Currency Conversion for First Data," page 115.	**DCC for First Data** ccAuthService (R for DCC transactions) ccCaptureService (R for DCC transactions) ccCreditService (R for DCC transactions)	String (15)
purchaseTotals_ foreignCurrency	**DCC for First Data** Billing currency returned by the DCC service. For the possible values, see the *ISO Standard Currency Codes*. For details about DCC, see "Dynamic Currency Conversion for First Data," page 115.	**DCC for First Data** ccAuthService (R for DCC transactions) ccCaptureService (R for DCC transactions) ccCreditService (R for DCC transactions)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_ grandTotalAmount	Grand total for the order. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. **Important** Some processors have specific requirements and limitations, such as maximum amounts and maximum field lengths. This information is covered in: ■ Table 12, "Authorization Information for Specific Processors," on page 37 ■ Table 16, "Capture Information for Specific Processors," on page 52 ■ Table 20, "Credit Information for Specific Processors," on page 66 If your processor supports zero amount authorizations, you can set this field to 0 for the authorization to check if the card is lost or stolen. See "Zero Amount Authorizations," page 224. ***DCC for First Data*** Not used. ***FDMS South*** If you accept IDR or CLP currencies, see the entry for FDMS South in Table 12, "Authorization Information for Specific Processors," on page 37.	ccAuthService[3] ccAuthReversal Service[3] ccCaptureService[3] ccCreditService[3]	Comercio Latino: String (19) All other processors: String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
recipient_accountID	Identifier for the recipient's account. Use the first six digits and last four digits of the recipient's account number. This field is a *pass-through*, which means that CyberSource does not verify the value or modify it in any way before sending it to the processor. If the field is not required for the transaction, CyberSource does not forward it to the processor. See "Recipients," page 201.	ccAuthService (Required in recipient transactions; otherwise, not used)	String with numbers only (10)
recipient_dateOfBirth	Recipient's date of birth. Format: YYYYMMDD. This field is a *pass-through*, which means that CyberSource ensures that the value is eight numeric characters but otherwise does not verify the value or modify it in any way before sending it to the processor. If the field is not required for the transaction, CyberSource does not forward it to the processor. See "Recipients," page 201.	ccAuthService (Required in recipient transactions; otherwise, not used)	String with numbers only (8)
recipient_lastName	Recipient's last name. This field is a *pass-through*, which means that CyberSource does not verify the value or modify it in any way before sending it to the processor. If the field is not required for the transaction, CyberSource does not forward it to the processor. See "Recipients," page 201.	ccAuthService (Required in recipient transactions; otherwise, not used)	String with letters and numbers only (6)
recipient_postalCode	Partial postal code for the recipient's address. For example, if the postal code is NN5 7SG, the value for this field should be the first part of the postal code: NN5. This field is a *pass-through*, which means that CyberSource does not verify the value or modify it in any way before sending it to the processor. If the field is not required for the transaction, CyberSource does not forward it to the processor. See "Recipients," page 201.	ccAuthService (Required in recipient transactions; otherwise, not used)	String with letters and numbers only (6)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
recurringSubscription Info_subscriptionID	When you use Payment Tokenization or Recurring Billing and you include this value in your request, many of the fields that are normally required for an authorization or credit become optional. See "Payment Tokenization," page 199, and "Recurring Billing," page 202.	ccAuthService (O) ccCreditService (O)	String (26)
reportGroup	Attribute that lets you define custom grouping for your processor reports. This field is supported only for Litle. See "Report Groups," page 212.	ccAuthService (O) ccAuthReversal Service (O) ccCaptureService (O) ccCreditService (O)	String (25)
shipFrom_postalCode	Postal code for the address from which the goods are shipped, which is used to establish nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits. When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] **Example** A1B 2C3 This field is frequently used for Level II and Level III transactions. See *Level II and Level III Processing Using the Simple Order API*. ***American Express Direct*** Before sending the postal code to the processor, CyberSource removes all non-alphanumeric characters and, if the remaining value is longer than nine characters, truncates the value starting from the right side.	ccCaptureService (O) ccCreditService (O)	String (10)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_buildingNumber	Building number in the street address. For example, the building number is 187 in the following address: Rua da Quitanda 187	ccAuthService (O)	String (15)
shipTo_city	City of the shipping address.	ccAuthService Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.	String (50)
shipTo_country	Country of the shipping address. Use the two-character *ISO Standard Country Codes*.	ccAuthService ccCaptureService ccCreditService Required if any shipping address information is included in the request; otherwise, optional.	String (2)
shipTo_district	Neighborhood, community, or region within a city or municipality.	ccAuthService (O)	String (50)
shipTo_firstName	First name of the recipient.	ccAuthService (O)	Litle: String (25) All other processors: String (60)
shipTo_lastName	Last name of the recipient.	ccAuthService (O)	Litle: String (25) All other processors: String (60)
shipTo_phoneNumber	Phone number for the shipping address.	ccAuthService (O)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.
2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.
4 Required for Visa Checkout transactions. Otherwise, not used.
5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Postal code for the shipping address. The postal code must consist of 5 to 9 digits. When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] **Example** A1B 2C3 *American Express Direct* Before sending the postal code to the processor, CyberSource removes all non-alphanumeric characters and, if the remaining value is longer than nine characters, truncates the value starting from the right side.	ccAuthService ccCaptureService ccCreditService Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.	String (10)
shipTo_shippingMethod	Shipping method for the product. Possible values: ■ `lowcost`: Lowest-cost service ■ `sameday`: Courier or same-day service ■ `oneday`: Next-day or overnight service ■ `twoday`: Two-day service ■ `threeday`: Three-day service ■ `pickup`: Store pick-up ■ `other`: Other shipping method ■ `none`: No shipping method because product is a service or subscription	ccAuthService (O)	String (10)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_state	State or province of the shipping address. Use the *State, Province, and Territory Codes for the United States and Canada*.	ccAuthService Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.	String (2)
shipTo_street1	First line of the shipping address.	ccAuthService Required if any shipping address information is included in the request; otherwise, optional.	String (60)
shipTo_street2	Second line of the shipping address.	ccAuthService (O)	String (60)
subsequentAuth	Flag indicating whether the transaction is a merchant-initiated transaction. Possible values: ■ `true`: Merchant-initiated transaction ■ `false`: Not a merchant-initiated transaction See "Merchant-Initiated Transactions," page 181. The value for this field does not correspond to any data in the TC 33 capture file[5]. This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (R for merchant-initiated transactions; otherwise, not used)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
subsequentAuthFirst	Flag indicating whether the transaction is the first merchant-initiated transaction in a series, which means that the customer initiated the previous transaction. Possible values: ■ true: First merchant-initiated transaction ■ false: Not the first merchant-initiated transaction See "Merchant-Initiated Transactions," page 181. The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR1 ■ Position: 136 ■ Field: POS Environment This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (R for merchant-initiated transactions; otherwise, not used)	String (5)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67 Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
subsequentAuthReason	Reason for the merchant-initiated transaction. Possible values: ■ `1`: Resubmission ■ `2`: Delayed charge ■ `3`: Reauthorization for split shipment ■ `4`: No show ■ `5`: Account top up This field is not required for installment payments or recurring payments or when **subsequentAuthFirst** is `true`. It is required for all other merchant-initiated transactions. See "Merchant-Initiated Transactions," page 181. The value for this field corresponds to the following data in the TC 33 capture file5: ■ Record: CP01 TCR0 ■ Position: 160-163 ■ Field: Message Reason Code This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (R for merchant-initiated transactions except recurring payments and installment payments; otherwise, not used)	String (1)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
subsequentAuth TransactionID	Network transaction identifier that was returned in the **ccAuthReply_ paymentNetworkTransactionID** field in the reply message for either the original merchant-initiated authorization in the series or the previous merchant-initiated authorization in the series. If the current authorization request includes a token instead of an account number, the following time limits apply for the value of this field: ■ For a resubmission, the transaction ID must be less than 14 days old. ■ For a delayed charge or reauthorization, the transaction ID must be less than 30 days old. See "Merchant-Initiated Transactions," page 181. The value for this field does not correspond to any data in the TC 33 capture file[5]. This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (R for merchant-initiated transactions; otherwise, not used)	String (15)
surchargeAmount	The surcharge amount is included in the total transaction amount but is passed in a separate field to the issuer and acquirer for tracking. The issuer can provide information about the surcharge amount to the customer. This field is supported only for CyberSource through VisaNet.	ccAuthService (O)	String (15)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
surchargeSign	Sign for the surcharge amount. Possible values: ■ C: The surcharge amount will be credited to the customer's account. ■ D: The surcharge amount will be debited from the customer's account. This field is supported only for CyberSource through VisaNet.	ccAuthService (O)	String (1)
transactionLocalDate Time	Local date and time at your physical location. Include both the date and time in this field or leave it blank. This field is supported only for CyberSource through VisaNet. Format: YYYYMMDDhhmmss where: ■ YYYY = year ■ MM = month ■ DD = day ■ hh = hour ■ mm = minutes ■ ss = seconds	ccAuthService (O)	String (14)
ucaf_ authenticationData	Universal cardholder authentication field (UCAF) data. For the description and requirements, see "Payer Authentication," page 184.	ccAuthService	String (32)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ucaf_collectionIndicator	Universal cardholder authentication field (UCAF) collection indicator. For the description and requirements, see "Payer Authentication," page 184. ***CyberSource through VisaNet*** The value for this field corresponds to the following data in the TC 33 capture file[5]: ■ Record: CP01 TCR7 ■ Position: 5 ■ Field: Mastercard Electronic Commerce Indicators—UCAF Collection Indicator	ccAuthService	String with numbers only (1)
vc_orderID	Identifier for the Visa Checkout order. Visa Checkout provides a unique order ID for every transaction in the Visa Checkout **callID** field. See *Visa Checkout Using the Simple Order API*.	ccAuthService[4] ccAuthReversalService[4] ccCaptureService[4] ccCreditService[4]	String (48)
voidService_run	Whether to include **voidService** in your request. Possible values: ■ `true`: Include the service in your request. ■ `false` (default): Do not include the service in your request.	voidService (R)	String (5)
voidService_ voidRequestID	Request ID of the capture or credit you want to void.	voidService (R)	String (26)
voidService_ voidRequestToken	Value of the request token returned from a previous request for a service that you want to void. The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	voidService (Required for Atos; otherwise, optional.)	String (256)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
wallet_type	Type of wallet. For possible values, see Appendix S, "Values for the Wallet Type Field," on page 420.	***Masterpass (101, 102, 103, 216, and 217)*** ccAuthService (O) ccCreditService (O on Chase Paymentech Solutions and CyberSource through VisaNet. Not used for credits on OmniPay Direct.)	String (5)
	For Visa Checkout transactions, the way CyberSource processes the value for this field depends on the processor. See the Visa Checkout section below.		
	For all other values, this field is a *passthrough*; therefore, CyberSource does not verify the value or modify it in any way before sending it to the processor.	***Staged Digital Wallet (SDW)*** ccAuthService (O) ccCreditService (O)	
	Payment card companies can introduce new values without notice. Your order management system should be able to process new values without problems.	***Visa Checkout (VCIND)*** ccAuthService (See description) ccCreditService (O for stand-alone credits. Not used for follow-on credits.)	
	CyberSource through VisaNet This field is supported only for authorizations. It is not supported for credits.		
	When the value for this field is `101`, `102`, `103`, `216`, or `217`, it corresponds to the following data in the TC 33 capture file[5]:		
	■ Record: CP01 TCR6		
	■ Position: 88-90		
	■ Field: Mastercard Wallet Identifier		
	When the value for this field is `VCIND`, it corresponds to the following data in the TC 33 capture file[5]:		
	■ Record: CP01 TCR8		
	■ Position: 72-76		
	■ Field: Agent Unique ID		

(*continued on next page*)

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Table 67   Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
wallet_type (*continued*)	***Masterpass (101, 102, 103, 216, and 217)*** The Masterpass platform generates the wallet type value and passes it to you along with the customer's checkout information. ***Visa Checkout*** This field is optional for Visa Checkout authorizations on FDI Australia. For all other processors, this field is required for Visa Checkout authorizations. For Visa Checkout transactions on the following processors, CyberSource sends the value that the processor expects for this field: ■ FDC Compass ■ FDC Nashville Global ■ FDI Australia ■ TSYS Acquiring Solutions For all other processors, this field is a *passthrough*; therefore, CyberSource does not verify the value or modify it in any way before sending it to the processor.		

1 Optional for a follow-on credit request, which must include **ccCreditService_captureRequestID**.

2 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 75. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

3 You must include either **item_#_unitPrice** or **purchaseTotals_grandTotalAmount** in your request. For information about items and grand totals, see *Getting Started with CyberSource Advanced for the Simple Order API*.

4 Required for Visa Checkout transactions. Otherwise, not used.

5 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment card companies.

Reply Fields

Table 68   Reply Fields

Field	Description	Returned By	Data Type & Length
additionalData	This field might contain information about a decline. This field is supported only for CyberSource through VisaNet.	ccAuthReply	String (255)
additionalProcessor Response	Processor-defined response category code. The associated detail error code is in the **ccAuthReply_processorResponse** field or the **ccAuthReversalReply_processorResponse** field depending on which service you requested. This field is supported only for: ■ Japanese issuers ■ Domestic transactions in Japan ■ Comercio Latino—processor transaction ID required for troubleshooting	ccAuthReply ccAuthReversal Reply	Comercio Latino: Integer (32) All other processors: Integer (3)
authIndicator	Flag indicating the type of authorization that was performed. Possible values: ■ `0`: Preauthorization ■ `1`: Final authorization See "Final Authorization Indicator," page 121. This field is not returned for unmarked authorizations. This field is returned only for Chase Paymentech Solutions and FDC Nashville Global.	ccAuthReply	String (1)
ccAuthReply_ accountBalance	Remaining balance on the account. See "Balance Responses," page 95, and "Balance Inquiries," page 111.	ccAuthReply	String (12)
ccAuthReply_ accountBalanceCurrency	Currency of the remaining balance on the account. For the possible values, see the *ISO Standard Currency Codes.* Also see "Balance Responses," page 95, and "Balance Inquiries," page 111.	ccAuthReply	String (5)
ccAuthReply_ accountBalanceSign	Sign for the remaining balance on the account. Returned only when the processor returns this value. See "Balance Inquiries," page 111. Possible values: ■ `positive` ■ `negative`	ccAuthReply	String (8)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ accountType	Type of account. This value is returned only if you requested a balance inquiry. See "Balance Inquiries," page 111. Possible values: ■ 00: Not applicable or not specified ■ 10: Savings account ■ 20: Checking account ■ 30: Credit card account ■ 40: Universal account	ccAuthReply	String (2)
ccAuthReply_ affluenceIndicator	***Chase Paymentech Solutions*** Indicates whether a customer has high credit limits. This information enables you to market high cost items to these customers and to understand the kinds of cards that high income customers are using. This field is supported for Visa, Mastercard, Discover, and Diners Club. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112. ***Litle*** Flag indicating that a Visa cardholder or Mastercard cardholder is in one of the affluent categories. Possible values: ■ AFFLUENT: High income customer with high spending pattern (>100k USD annual income and >40k USD annual card usage). ■ MASS AFFLUENT: High income customer (>100k USD annual income).	ccAuthReply	Chase Paymentech Solution: String (1) Litle: String (13)
ccAuthReply_amount	Amount that was authorized. ***FDMS South*** If you accept IDR or CLP currencies on FDMS South, see the entry for FDMS South in Table 12, "Authorization Information for Specific Processors," on page 37.	ccAuthReply	String (15)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ amountType	Type of amount. This value is returned only if you requested a balance inquiry. The issuer determines the value that is returned. See "Balance Inquiries," page 111. Possible values for deposit accounts: ■ 01: Current ledger (posted) balance. ■ 02: Current available balance, which is typically the ledger balance less outstanding authorizations. Some depository institutions also include pending deposits and the credit or overdraft line associated with the account. Possible values for credit card accounts: ■ 01: Credit amount remaining for customer (open to buy). ■ 02: Credit limit.	ccAuthReply	String (2)
ccAuthReply_ authorizationCode	Authorization code. Returned only when the processor returns this value. ***Elavon Encrypted Account Number Program*** The returned value is OFFLINE. See "Encoded Account Numbers," page 120. ***TSYS Acquiring Solutions*** The returned value for a successful zero amount authorization is 000000. See "Zero Amount Authorizations," page 224.	ccAuthReply	String The length of this value depends on your processor.
ccAuthReply_ authorizedDateTime	Time of authorization. Format: YYYY-MM-DDThh:mm:ssZ **Example** 2016-08-11T22:47:57Z equals August 11, 2016, at 22:47:57 (10:47:57 p.m.). The T separates the date and the time. The Z indicates UTC.	ccAuthReply	String (20)
ccAuthReply_avsCode	AVS results. See "Address Verification System (AVS)," page 72, for a description of AVS. See Appendix E, "AVS Codes," on page 381, for the list of AVS codes.	ccAuthReply	String (1)
ccAuthReply_ avsCodeRaw	AVS result code sent directly from the processor. Returned only when the processor returns this value. **Important** Do not use this field to evaluate the result of AVS. Use for debugging purposes only.	ccAuthReply	String (10)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ cardCategory	***CyberSource through VisaNet*** Visa product ID. For the possible values, see "Visa Product IDs," page 410. ***GPN*** Visa or Mastercard product ID. For the possible values, see Appendix P, "Product IDs," on page 410. ***Litle*** Type of card used in the transaction. The only possible value is: ■ PREPAID: Prepaid Card ***RBS WorldPay Atlanta*** Type of card used in the transaction. Possible values: ■ B: Business Card ■ O: Noncommercial Card ■ R: Corporate Card ■ S: Purchase Card ■ Blank: Purchase card not supported	ccAuthReply	CyberSource through VisaNet: String (3) GPN: String (3) Litle: String (7) RBS WorldPay Atlanta: String (1)
ccAuthReply_ cardCommercial	Indicates whether the card is a commercial card, which enables you to include Level II data in your transaction requests. This field is supported for Visa and Mastercard on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cardGroup	Type of commercial card. This field is supported only for CyberSource through VisaNet. Possible values: ■ B: Business card ■ R: Corporate card ■ S: Purchasing card ■ O: Noncommercial card	ccAuthReply	String (1)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Table 68 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ cardHealthcare	Indicates whether the card is a healthcare card. This field is supported for Visa and Mastercard on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cardIssuerCountry	Country in which the card was issued. This information enables you to determine whether the card was issued domestically or internationally. Use the two-character *ISO Standard Country Codes*. This field is supported for Visa, Mastercard, Discover, Diners Club, JCB, and Maestro (International) on Chase Paymentech Solutions. See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (3)
ccAuthReply_ cardLevel3Eligible	Indicates whether the card is eligible for Level III interchange fees, which enables you to include Level III data in your transaction requests. This field is supported for Visa and Mastercard on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cardPayroll	Indicates whether the card is a payroll card. This field is supported for Visa, Discover, Diners Club, and JCB on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ cardPINlessDebit	Indicates whether the card is a PINless debit card. This field is supported for Visa and Mastercard on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cardPrepaid	Indicates whether the card is a prepaid card. This information enables you to determine when a gift card or prepaid card is presented for use when establishing a new recurring, installment, or deferred billing relationship. This field is supported for Visa, Mastercard, Discover, Diners Club, and JCB on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cardRegulated	Indicates whether the card is regulated according to the Durbin Amendment. If the card is regulated, the card issuer is subject to price caps and interchange rules. This field is supported for Visa, Mastercard, Discover, Diners Club, and JCB on Chase Paymentech Solutions. Possible values: ■ Y: Yes (assets greater than 10B USD) ■ N: No (assets less than 10B USD) ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ cardSignatureDebit	Indicates whether the card is a signature debit card. This information enables you to alter the way an order is processed. For example, you might not want to reauthorize a transaction for a signature debit card, or you might want to perform reversals promptly for a signature debit card. This field is supported for Visa, Mastercard, and Maestro (International) on Chase Paymentech Solutions. Possible values: ■ Y: Yes ■ N: No ■ X: Not applicable / Unknown See "Card Type Indicators (CTIs)," page 112.	ccAuthReply	String (1)
ccAuthReply_ cavvResponseCode	Mapped response code for Verified by Visa and American Express SafeKey: ■ See "Verified by Visa," page 184, and Appendix R, "Verified by Visa Response Codes," on page 419. ■ See "American Express SafeKey," page 197, and Appendix D, "American Express SafeKey Response Codes," on page 380.	ccAuthReply	String (3)
ccAuthReply_ cavvResponseCode Raw	Raw response code sent directly from the processor for Verified by Visa and American Express SafeKey: ■ See "Verified by Visa," page 184. ■ See "American Express SafeKey," page 197.	ccAuthReply	String (3)
ccAuthReply_cvCode	CVN result code. See "Card Verification Numbers (CVNs)," page 81, for a description of the card verification check. See Appendix H, "CVN Codes," on page 389 for the list of CVN codes.	ccAuthReply	String (1)
ccAuthReply_ cvCodeRaw	CVN result code sent directly from the processor. Returned only when the processor returns this value. **Important** Do not use this field to evaluate the result of card verification. Use for debugging purposes only.	ccAuthReply	String (10)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_evEmail	Mapped Electronic Verification response code for the customer's email address. See Appendix J, "Electronic Verification Response Codes," on page 394.	ccAuthReply	String (1)
ccAuthReply_ evEmailRaw	Raw Electronic Verification response code from the processor for the customer's email address.	ccAuthReply	String (1)
ccAuthReply_evName	Mapped Electronic Verification response code for the customer's name. See Appendix J, "Electronic Verification Response Codes," on page 394.	ccAuthReply	String (1)
ccAuthReply_ evNameRaw	Raw Electronic Verification response code from the processor for the customer's last name.	ccAuthReply	String (1)
ccAuthReply_ evPhoneNumber	Mapped Electronic Verification response code for the customer's phone number. See Appendix J, "Electronic Verification Response Codes," on page 394.	ccAuthReply	String (1)
ccAuthReply_ evPhoneNumberRaw	Raw Electronic Verification response code from the processor for the customer's phone number.	ccAuthReply	String (1)
ccAuthReply_ evPostalCode	Mapped Electronic Verification response code for the customer's postal code. See Appendix J, "Electronic Verification Response Codes," on page 394.	ccAuthReply	String (1)
ccAuthReply_ evPostalCodeRaw	Raw Electronic Verification response code from the processor for the customer's postal code.	ccAuthReply	String (1)
ccAuthReply_evStreet	Mapped Electronic Verification response code for the customer's street address. See Appendix J, "Electronic Verification Response Codes," on page 394.	ccAuthReply	String (1)
ccAuthReply_ evStreetRaw	Raw Electronic Verification response code from the processor for the customer's street address.	ccAuthReply	String (1)
ccAuthReply_ forwardCode	Name of the Japanese acquirer that processed the transaction. Returned only for CCS (CAFIS) and JCN Gateway. Please contact the CyberSource Japan Support Group for more information.	ccAuthReply	String (32)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ merchantAdviceCode	Reason the recurring payment transaction was declined. For some processors, this field is used only for Mastercard. For other processors, this field is used for Visa and Mastercard. And for other processors, this field is not implemented. Possible values: ■ 00: Response not provided. ■ 01: New account information is available. Obtain the new information. ■ 02: Try again later. ■ 03: Do not try again. Obtain another type of payment from the customer. ■ 04: Problem with a token or a partial shipment indicator. ■ 21: Recurring payment cancellation service. ■ 99: An unknown value was returned from the processor.	ccAuthReply	String (2)
ccAuthReply_ merchantAdviceCode Raw	Raw merchant advice code sent directly from the processor. This field is used only for Mastercard. ***CyberSource through VisaNet*** The value for this field corresponds to the following data in the TC 33 capture file[1]: ■ Record: CP01 TCR7 ■ Position: 96-99 ■ Field: Response Data—Merchant Advice Code	ccAuthReply	String (2)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ ownerMerchantID	Merchant ID that was used to create the subscription or customer profile for which the service was requested. ***Payment Tokenization*** When your account is enabled for Payment Tokenization, this field is returned only when you use profile sharing and when your merchant ID is in the same merchant ID pool as the owner merchant ID. See the profile sharing information in *Payment Tokenization Using the Simple Order API*. ***Recurring Billing*** When your account is enabled for Recurring Billing, this field is returned only when you use subscription sharing and when your merchant ID is in the same merchant ID pool as the owner merchant ID. See the subscription sharing information in *Recurring Billing Using the Simple Order API*.	ccAuthReply	String (30)
ccAuthReply_ paymentNetwork TransactionID	Network transaction identifier (TID). You can use this value to identify a specific transaction when you are discussing the transaction with your processor. Not all processors provide this value. ***Cielo*** For Cielo, this value is the non-sequential unit (NSU) and is supported for all transactions. The value is generated by Cielo or the issuing bank. ***Comercio Latino*** For Comercio Latino, this value is the proof of sale or non-sequential unit (NSU) number generated by the acquirers Cielo and Rede, or the issuing bank. ***CyberSource through VisaNet and GPN*** For details about this value for CyberSource through VisaNet and GPN, see Appendix N, "Network Transaction Identifiers," on page 407.	ccAuthReply	Comercio Latino: String (20) All other processors: String (15)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ personalIDCode	Personal identifier result. This field is supported only for Redecard in Brazil for CyberSource Latin American Processing. If you included **billTo_personalID** in the request, this value indicates whether or not **billTo_personalID** matched a value in a record on file. Returned only when the personal ID result is returned by the processor. Possible values: ■ `Y`: Match ■ `N`: No match ■ `K`: Not supported ■ `U`: Unknown ■ `Z`: No response returned **Note** *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America.The information in this field description is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.	ccAuthReply	String (1)
ccAuthReply_posData	Point-of-sale details for the transaction. This value is returned only for American Express Direct. CyberSource generates this value, which consists of a series of codes that identify terminal capability, security data, and specific conditions present at the time the transaction occurred. To comply with the CAPN requirements, this value must be included in all subsequent follow-on requests, such as captures and follow-on credits. When you perform authorizations, captures, and credits through CyberSource, CyberSource passes this value from the authorization service to the subsequent services for you. However, when you perform authorizations through CyberSource and perform subsequent services through other financial institutions, you must ensure that your requests for captures and credits include this value. See "Authorization Only," page 111.	ccAuthReply	String (12)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ processorResponse	For most processors, this is the error message sent directly from the bank. Returned only when the processor returns this value.	ccAuthReply	JCN Gateway: String (3)
	Important Do not use this field to evaluate the result of the authorization.		All other processors: String (10)
	AIBMS If this value is `08`, you can accept the transaction if the customer provides you with identification.		
	Atos This value is the response code sent from Atos and it might also include the response code from the bank.		
	Format: aa,bb with the two values separated by a comma and where:		
	▪ aa is the two-digit error message from Atos.		
	▪ bb is the optional two-digit error message from the bank.		
	Comercio Latino This value is the status code and the error or response code received from the processor separated by a colon.		
	Format: [status code]:E[error code] or [status code]:R[response code]		
	Example 2:R06		
	JCN Gateway Processor-defined detail error code. The associated response category code is in the **additionalProcessorResponse** field.		

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ processorTransactionID	Processor transaction ID. ***Cielo and CyberSource Latin American Processing*** This value is a unique identifier for the transaction. ***Moneris*** This value identifies the transaction on a host system. It contains the following information: ■ Terminal used to process the transaction ■ Shift during which the transaction took place ■ Batch number ■ Transaction number within the batch You must store this value. If you give the customer a receipt, display this value on the receipt. **Example** For the value `66012345001069003`: ■ Terminal ID = `66012345` ■ Shift number = `001` ■ Batch number = `069` ■ Transaction number = `003`	ccAuthReply	Cielo and CyberSource Latin American Processing: String (50) Moneris: Positive Integer (18)
ccAuthReply_ reasonCode	Numeric value corresponding to the result of the credit card authorization request. See Appendix Q, "Reason Codes," on page 415.	ccAuthReply	Integer (5)
ccAuthReply_ reconciliationID	Reference number for the transaction. This value is not returned for all processors. See Table 7, "Fields for Reconciliation IDs," on page 25 for the list of processors for which this value is returned. See *Getting Started with CyberSource Advanced for the Simple Order API* for information about order tracking and reconciliation.	ccAuthReply	Atos: Integer (6) All other processors: String (60)
ccAuthReply_ reconciliationReference Number	Unique number generated by CyberSource that identifies the transaction. You can use this value to identify transactions in the Ingenico ePayments Collections Report, which provides settlement information. This field is supported only on Ingenico ePayments.	ccAuthReply	String (20)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_referralResponseNumber	Referral response number for a verbal authorization with FDMS Nashville when using an American Express card. Give this number to American Express when you call them for the verbal authorization.	ccAuthReply	String (6)
ccAuthReply_requestAmount	Amount you requested to be authorized. This value is returned for partial authorizations as described in "Partial Authorizations," page 89.	ccAuthReply	String (15)
ccAuthReply_requestCurrency	Currency for the amount you requested to be authorized. This value is returned for partial authorizations as described in "Partial Authorizations," page 89. For the possible values, see the ISO Standard Currency Codes.	ccAuthReply	String (5)
ccAuthReply_transactionID	Transaction identification (TID) that is used to identify and track a transaction throughout its life cycle. This value is returned only for American Express Direct. American Express generates this value. To comply with the CAPN requirements, this value must be included in all subsequent follow-on requests, such as captures and follow-on credits. When you perform authorizations, captures, and credits through CyberSource, CyberSource passes this value from the authorization service to the subsequent services for you. However, when you perform authorizations through CyberSource and perform subsequent services through other financial institutions, you must ensure that your requests for captures and credits include this value. See "Authorization Only," page 111.	ccAuthReply	String (15)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReply_ transactionIntegrity	Transaction integrity classification provided by Mastercard. This value specifies Mastercard's evaluation of the transaction's safety and security. This field is returned only for CyberSource through VisaNet.	ccAuthReply	String (2)
	For card-present transactions, possible values:		
	■ `A1`: EMV or token in a secure, trusted environment		
	■ `B1`: EMV or chip equivalent		
	■ `C1`: Magnetic stripe		
	■ `E1`: Key entered		
	■ `U0`: Unclassified		
	For card-not-present transactions, possible values:		
	■ `A2`: Digital transactions		
	■ `B2`: Authenticated checkout		
	■ `C2`: Transaction validation		
	■ `D2`: Enhanced data		
	■ `E2`: Generic messaging		
	■ `U0`: Unclassified		
	For information about these values, contact Mastercard or your acquirer.		
	CyberSource through VisaNet The value for this field corresponds to the following data in the TC 33 capture file[1]:		
	■ Record: CP01 TCR6		
	■ Position: 136-137		
	■ Field: Mastercard Transaction Integrity Classification		
ccAuthReversalReply_ amount	Amount that was reversed.	ccAuthReversal Reply	String (15)
ccAuthReversalReply_ authorizationCode	Authorization code. Returned only when the authorization code is returned by the processor.	ccAuthReversal Reply	String (6)
ccAuthReversalReply_ forwardCode	Name of the Japanese acquirer that processed the transaction. Returned only for CCS (CAFIS) and JCN Gateway. Please contact the CyberSource Japan Support Group for more information.	ccAuthReversal Reply	String (32)

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Table 68 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReversalReply_ processorResponse	Processor response code. ***JCN Gateway*** Processor-defined detail error code. The associated response category code is in the **additionalProcessorResponse** field.	ccAuthReversal Reply	JCN Gateway: String (3) All other processors: String (10)
ccAuthReversalReply_ processorTransactionID	Processor transaction ID. This field is supported only for Moneris. This value identifies the transaction on a host system. It contains the following information: ■ Terminal used to process the transaction ■ Shift during which the transaction took place ■ Batch number ■ Transaction number within the batch You must store this value. If you give the customer a receipt, display this value on the receipt. **Example** For the value `66012345001069003:` ■ Terminal ID = `66012345` ■ Shift number = `001` ■ Batch number = `069` ■ Transaction number = `003`	ccAuthReversal Reply	Positive Integer (18)
ccAuthReversalReply_ reasonCode	Numeric value corresponding to the result of the full authorization reversal request. See Appendix Q, "Reason Codes," on page 415.	ccAuthReversal Reply	Integer (5)
ccAuthReversalReply_ reconciliationID	Reference number for the transaction. This value is not returned for all processors. See Table 7, "Fields for Reconciliation IDs," on page 25 for the list of processors for which this value is returned. See *Getting Started with CyberSource Advanced for the Simple Order API* for information about order tracking and reconciliation.	ccAuthReversal Reply	String (60)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccAuthReversalReply_ requestDateTime	Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ **Example** 2016-08-11T22:47:57Z equals August 11, 2016, at 22:47:57 (10:47:57 p.m.). The T separates the date and the time. The Z indicates UTC.	ccAuthReversal Reply	String (20)
ccCaptureReply_ amount	Amount that was captured.	ccCaptureReply	String (15)
ccCaptureReply_ processorTransactionID	Processor transaction ID. This value identifies the transaction on a host system. This value is supported only for Moneris. It contains this information: ■ Terminal used to process the transaction ■ Shift during which the transaction took place ■ Batch number ■ Transaction number within the batch You must store this value. If you give the customer a receipt, display this value on the receipt. **Example** For the value `66012345001069003`: ■ Terminal ID = `66012345` ■ Shift number = `001` ■ Batch number = `069` ■ Transaction number = `003`	ccCaptureReply	Positive Integer (18)
ccCaptureReply_ reasonCode	Numeric value corresponding to the result of the capture request. See Appendix Q, "Reason Codes," on page 415.	ccCaptureReply	Integer (5)
ccCaptureReply_ reconciliationID	Reference number that you use to reconcile your CyberSource reports with your processor reports. See *Getting Started with CyberSource Advanced for the Simple Order API* for information about order tracking and reconciliation.	ccCaptureReply	Atos: Integer (6) FDC Nashville Global: String (8) All other processors: String (60)

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Table 68 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccCaptureReply_reconciliationReferenceNumber	Unique number generated by CyberSource that identifies the transaction. You can use this value to identify transactions in the Ingenico ePayments Collections Report, which provides settlement information. This field is supported only on Ingenico ePayments.	ccCaptureReply	String (20)
ccCaptureReply_requestDateTime	Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ **Example** 2016-08-11T22:47:57Z equals August 11, 2016, at 22:47:57 (10:47:57 p.m.). The T separates the date and the time. The Z indicates UTC.	ccCaptureReply	String (20)
ccCreditReply_amount	Amount that was credited.	ccCreditReply	String (15)
ccCreditReply_forwardCode	Name of the Japanese acquirer that processed the transaction. Returned only for CCS (CAFIS) and JCN Gateway. Please contact the CyberSource Japan Support Group for more information.	ccCreditReply	String (32)
ccCreditReply_ownerMerchantID	Merchant ID that was used to create the subscription or customer profile for which the service was requested. ***Payment Tokenization*** When your account is enabled for Payment Tokenization, this field is returned only when you use profile sharing and when your merchant ID is in the same merchant ID pool as the owner merchant ID. See the profile sharing information in *Payment Tokenization Using the Simple Order API*. ***Recurring Billing*** When your account is enabled for Recurring Billing, this field is returned only when you use subscription sharing and when your merchant ID is in the same merchant ID pool as the owner merchant ID. See the subscription sharing information in *Recurring Billing Using the Simple Order API*.	ccCreditReply	String (30)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccCreditReply_ processorTransactionID	Processor transaction ID. This value identifies the transaction on a host system. This value is supported only for Moneris. It contains this information: ■ Terminal used to process the transaction ■ Shift during which the transaction took place ■ Batch number ■ Transaction number within the batch You must store this value. If you give the customer a receipt, display this value on the receipt. **Example** For the value `66012345001069003`: ■ Terminal ID = `66012345` ■ Shift number = `001` ■ Batch number = `069` ■ Transaction number = `003`	ccCreditReply	Positive Integer (18)
ccCreditReply_ reasonCode	Numeric value corresponding to the result of the credit request. See Appendix Q, "Reason Codes," on page 415.	ccCreditReply	Integer (5)
ccCreditReply_ reconciliationID	Reference number that you use to reconcile your CyberSource reports with your processor reports. See *Getting Started with CyberSource Advanced for the Simple Order API* for information about order tracking and reconciliation.	ccCreditReply	Atos: Integer (6) FDC Nashville Global: String (8) All other processors: String (60)
ccCreditReply_ reconciliationReference Number	Unique number generated by CyberSource that identifies the transaction. You can use this value to identify transactions in the Ingenico ePayments Collections Report, which provides settlement information. This field is supported only on Ingenico ePayments.	ccCreditReply	String (20)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
ccCreditReply_ requestDateTime	Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ **Example** 2016-08-11T22:47:57Z equals August 11, 2016, at 22:47:57 (10:47:57 p.m.). The T separates the date and the time. The Z indicates UTC.	ccCreditReply	String (20)
ccDCCReply_ dccSupported	***DCC for First Data*** Flag indicating whether DCC can be used for the transaction. Possible values: ■ TRUE: DCC can be used. ■ FALSE: DCC cannot be used.	ccDCCReply	String (5)
ccDCCReply_ marginRate Percentage	***DCC for First Data*** Exchange rate surcharge that is applied to the wholesale exchange rate. Includes a decimal point and 4 decimal places. For details, see "Dynamic Currency Conversion for First Data," page 115.	ccDCCReply	String (7)
ccDCCReply_ reasonCode	***DCC for First Data*** Numeric value corresponding to the result of the DCC request. See Appendix Q, "Reason Codes," on page 415.	ccDCCReply	Integer (5)
decision	Summarizes the result of the overall request. Possible values: ■ ACCEPT ■ ERROR ■ REJECT ■ REVIEW: Returned only when you use CyberSource Decision Manager. For details about these values, see the information about handling replies in *Getting Started with CyberSource Advanced for the Simple Order API*.	All credit card services	String (6)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
invalidField_0...N	Fields in the request that have invalid data. For information about missing or invalid fields, see *Getting Started with CyberSource Advanced for the Simple Order API*. **Note** These fields are included as an aid to software developers only. Do not use these fields to interact with your customers.	All credit card services	String (100)
issuer_additionalData	Data defined by the issuer. The value for this reply field will probably be the same as the value that you submitted in the authorization request, but it is possible for the processor, issuer, or acquirer to modify the value. For more information, see Appendix K, "Formats for Discretionary Data," on page 395. This field is supported only for Visa transactions on CyberSource through VisaNet.	ccAuthService (O) ccAuthReversalService (O) ccCaptureService (O)	String (255)
merchantReference Code	Order reference or tracking number that you provided in the request. If you included multi-byte characters in this field in the request, the returned value might include corrupted characters. ***FDC Nashville Global*** There are some special circumstances in which the processor truncates this value to 15 or 17 characters for Level II and Level III processing. This can cause a discrepancy between the value you submit and the value included in some processor reports.	All credit card services	String (50)
missingField_0...N	Required fields that were missing from the request. For information about missing or invalid fields, see *Getting Started with CyberSource Advanced for the Simple Order API*. **Note** These fields are included as an aid to software developers only. Do not use these fields to interact with your customers.	All credit card services	String (100)
originalTransaction_ amount	Amount of the original transaction. See "Merchant-Initiated Reversals and Voids," page 177.	ccAuthReversal Reply voidReply	String (15)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
originalTransaction_ reasonCode	Reason code for the original transaction. See "Merchant-Initiated Reversals and Voids," page 177.	ccAuthReversal Reply voidReply	String (50)
purchaseTotals_ currency	Currency used for the order. For the possible values, see the *ISO Standard Currency Codes*. ***DCC for First Data*** Your local currency. For details, see "Dynamic Currency Conversion for First Data," page 115.	ccAuthReply ccAuthReversal Reply ccCaptureReply ccCreditReply ccDCCReply	String (5)
purchaseTotals_ exchangeRate	***DCC for First Data*** Exchange rate. Includes a decimal point and a maximum of 4 decimal places. For details, see "Dynamic Currency Conversion for First Data," page 115.	ccDCCReply	String (13)
purchaseTotals_ exchangeRateTime Stamp	***DCC for First Data*** Time stamp for the exchange rate. For details, see "Dynamic Currency Conversion for First Data," page 115. Format: YYYYMMDD~HH:MM where ~ denotes a space.	ccDCCReply	String (14)
purchaseTotals_ foreignAmount	***DCC for First Data*** Converted amount. For details, see "Dynamic Currency Conversion for First Data," page 115.	ccDCCReply	String (15)
purchaseTotals_ foreignCurrency	***DCC for First Data*** Billing currency. For the possible values, see the *ISO Standard Currency Codes*. For details about DCC, see "Dynamic Currency Conversion for First Data," page 115.	ccDCCReply	String (5)
reasonCode	Numeric value corresponding to the result of the overall request. See Appendix Q, "Reason Codes," on page 415.	All credit card services	Integer (5)

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Table 68   Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
receiptNumber	This field is returned only for American Express Direct and CyberSource through VisaNet. ***American Express Direct*** System trace audit number (STAN). This value identifies the transaction and is useful when investigating a chargeback dispute. ***CyberSource through VisaNet*** System trace number that must be printed on the customer's receipt.	ccAuthReply	String (6)
requestID	Identifier for the request.	All credit card services	String (26)
requestToken	Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information such as an account or card verification number. The string can contain a maximum of 256 characters. When you request the authorization and capture services together, the request token is for the capture reply only. ***Atos*** You must store the contents of this field so that you can retrieve and send it in follow-on requests.	All credit card services	String (256)
voidReply_amount	Amount that was voided.	voidReply	String (15)
voidReply_currency	Currency used for the order. For the possible values, see the *ISO Standard Currency Codes*.	voidReply	String (5)
voidReply_reasonCode	Numeric value corresponding to the result of the void request. See Appendix Q, "Reason Codes," on page 415.	voidReply	Integer (5)
voidReply_ requestDateTime	Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ **Example** 2016-08-11T22:47:57Z equals August 11, 2016, at 22:47:57 (10:47:57 p.m.). The T separates the date and the time. The Z indicates UTC.	voidReply	String (20)

1 The TC 33 Capture file contains information about the purchases and refunds that a merchant submits to CyberSource. CyberSource through VisaNet creates the TC 33 Capture file at the end of the day and sends it to the merchant's acquirer, who uses this information to facilitate end-of-day clearing processing with payment networks.

Examples

Name-Value Pair Examples

Basic Credit Card Examples

Example 3   Credit Card Authorization Request

```
ccAuthService_run=true
merchantID=Napa Valley Vacations
merchantReferenceCode=482046C3A7E94F5
billTo_firstName=John
billTo_lastName=Doe
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_postalCode=94043
billTo_country=US
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
```

Example 4   Credit Card Authorization Reply

```
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5
purchaseTotals_currency=USD
ccAuthReply_reasonCode=100
ccAuthReply_amount=49.95
ccAuthReply_accountBalance=50.05
ccAuthReply_authorizationCode=123456
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_processorResponse=A
```

Example 5   Credit Card Capture Request

```
ccCaptureService_authRequestID=0305782650000167905080
merchantID=Napa Valley Vacations
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
ccCaptureService_run=true
item_0_unitPrice=49.95
purchaseTotals_currency=USD
```

Example 6   Credit Card Capture Reply

```
requestID=1019827520348290570293
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
decision=ACCEPT
reasonCode=100
ccCaptureReply_amount=49.95
purchaseTotals_currency=USD
ccCaptureReply_reasonCode=100
ccCaptureReply_reconciliationID=1094820975023470
```

Example 7   Credit Card Follow-on Credit Request

```
merchantID=Napa Valley Vacations
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
purchaseTotals_grandTotalAmount=1694.00
purchaseTotals_currency=EUR
ccCreditService_run=true
ccCreditService_captureRequestID=1019827520348290570293
```

Example 8   **Credit Card Follow-on Credit Reply**

```
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
requestID=1019827520348290570293
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=EUR
ccCreditReply_reasonCode=100
ccCreditReply_amount=1694.00
ccCreditReply_reconciliationID=C3A7E94F5BD1FE3C64820466C
```

Asia, Middle East, and Africa Gateway Examples

Example 9   **Credit Card Authorization Request with Payer Authentication Data**

```
shipTo_firstName=Jane
shipTo_lastName=Smith
shipTo_street1=1234 ABCD Street
shipTo_city=Mountain View
shipTo_state=CA
shipTo_country=US
shipTo_postalCode=94043
billTo_firstName=John
billTo_lastName=Doe
billTo_street1=1295 Charleston Road
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
billTo_ipAddress=10.7.7.7
billTo_email=jdoe@example.com
billTo_phoneNumber=650-965-6000
merchantReferenceCode=0123456789
purchaseTotals_currency=USD
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2020
card_cardType=001
ccAuthService_commerceIndicator=vbv
ccAuthService_xid=WhPlErd9WE2pb12345HlewUIQwQ
ccAuthService_veresEnrolled=Y
ccAuthService_paresStatus=Y
ccAuthService_cavv=PpmBUYXt2uyt12345mAb8XgnOk
ccAuthService_run=true
item_0_unitPrice=12.34
item_1_unitPrice=56.78
```

Example 10   Credit Card Authorization Reply

```
ccAuthReply_avsCode=2
ccAuthReply_amount=69.12
ccAuthReply_reasonCode=100
ccAuthReply_reconciliationID=19119123440
ccAuthReply_processorResponse=0
ccAuthReply_authorizationCode=ABC12345
requestID=1921371701234567904567
reasonCode=100
decision=ACCEPT
merchantReferenceCode=0123456789
purchaseTotals_currency=USD
```

Cielo Examples

Example 11   Automatic Capture Request with Elo

```
merchantID=Foster City Flowers
merchantReferenceCode=Transaction-Cielo-NTA-3
billTo_firstName=Júlia
billTo_lastName=Fernández
billTo_buildingNumber=1024
billTo_street1=R. Augustã
billTo_street2=Bloco 01
billTo_city=São Paulo
billTo_district=Bela Vista
billTo_state=SP
billTo_postalCode=01310-000
billTo_country=BR
billTo_phoneNumber=999-999-9999
billTo_email=jfernandez@example.com
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=104.00
card_accountNumber=1234567812345678
card_expirationMonth=03
card_expirationYear=2031
card_cardType=054
ccAuthService_run=true
ccAuthService_authType=AUTOCAPTURE
ccCaptureService_run=true
```

Example 12   Automatic Capture Reply with Elo

```
merchantReferenceCode=Transaction-Cielo-NTA-3
requestID=4231489930765000001540
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=104.00
ccAuthReply_authorizationCode=123456
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=CC
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=Auth12345678
ccAuthReply_paymentNetworkTransactionID=333138
ccAuthReply_processorTransactionID=00142308609746028231
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=104.00
ccCaptureReply_reconciliationID=Auth12345678
```

Example 13   Debit Card Request with Maestro (International)

```
merchantID=Foster City Flowers
merchantReferenceCode=Transaction-Cielo-NTA-4
billTo_firstName=Júlia
billTo_lastName=Fernández
billTo_buildingNumber=1024
billTo_street1=R. Augustã
billTo_street2=Bloco 01
billTo_city=São Paulo
billTo_district=Bela Vista
billTo_state=SP
billTo_postalCode=01310-000
billTo_country=BR
billTo_phoneNumber=999-999-9999
billTo_email=jfernandez@example.com
purchaseTotals_currency=brl
purchaseTotals_grandTotalAmount=106.00
card_accountNumber=123456781234567812
card_expirationMonth=03
card_expirationYear=2031
card_cvIndicator=1
card_cvNumber=123
card_cardType=042
ucaf_authenticationData=WhPlErd9WE2pb1yFjFHlewUIQwQ=
ucaf_collectionIndicator=2
ccAuthService_run=true
ccAuthService_commerceIndicator=spa
ccAuthService_xid=lEmYpm61EduaVZjPG1/HsgkAAQc=
ccAuthService_overridePaymentMethod=DB
ccCaptureService_run=true
```

Example 14   Debit Card Reply with Maestro (International)

```
merchantReferenceCode=Transaction-Cielo-NTA-4
requestID=4231489990775000001540
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=brl
ccAuthReply_reasonCode=100
ccAuthReply_amount=106.00
ccAuthReply_authorizationCode=123456
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=CC
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=Auth12345678
ccAuthReply_paymentNetworkTransactionID=333138
ccAuthReply_processorTransactionID=00142308609746028231
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=106.00
ccCaptureReply_reconciliationID=Auth12345678
```

Example 15   Installment Request with Visa

```
merchantID=Foster City Flowers
merchantReferenceCode=Transaction-Cielo-NTA-1
billTo_firstName=Júlia
billTo_lastName=Fernández
billTo_buildingNumber=1024
billTo_street1=R. Augustã
billTo_street2=Bloco 01
billTo_city=São Paulo
billTo_district=Bela Vista
billTo_state=SP
billTo_postalCode=01310-000
billTo_country=BR
billTo_phoneNumber=999-999-9999
billTo_email=jfernandez@example.com
item_0_unitPrice=51025.00
item_0_quantity=1
purchaseTotals_currency=brl
installment_totalCount=4
installment_planType=1
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2018
card_cardType=001
ccAuthService_run=true
```

Example 16   Installment Reply with Visa

```
merchantReferenceCode=Transaction-Cielo-NTA-1
requestID=4231493140785000001540
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=brl
ccAuthReply_reasonCode=100
ccAuthReply_amount=51025.00
ccAuthReply_authorizationCode=123456
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=CC
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=Auth12345678
ccAuthReply_paymentNetworkTransactionID=333138
ccAuthReply_processorTransactionID=00142308609746028231
```

CyberSource Latin American Processing Examples

> **Note**
>
> *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. These examples are for the specific processing connection called *CyberSource Latin American Processing.* They are not for any other Latin American processors that CyberSource supports.

Example 17   Credit Card Authorization Request for Redecard in Brazil with AVS

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=1234567890
billTo_firstName=Adriana
billTo_lastName=Tavares da Silva
billTo_street1=Rua da Quitanda 187
billTo_buildingNumber=187
billTo_city=Rio de Janeiro
billTo_postalCode=20091-005
billTo_country=BR
billTo_phoneNumber=+552121114700
billTo_email=asilva@example.com
billTo_personalID=987654321
item_0_quantity=1
item_0_unitPrice=49.95
purchaseTotals_currency=BRL
card_cardType=052
card_accountNumber=5432543254325432
card_expirationMonth=12
card_expirationYear=2015
```

Example 18   Credit Card Authorization Reply

```
decision=ACCEPT
reasonCode=100
requestID=12345678901234567890
merchantReferenceCode=1234567
purchaseTotals_currency=BRL
ccAuthReply_reasonCode=100
ccAuthReply_personalIDCode=Y
ccAuthReply_amount=49.95
ccAuthReply_authorizationCode=123456
ccAuthReply_reconciliationID=1911912456
ccAuthReply_avsCode=V
```

Partial Authorization Examples

Fully Approved Request

The following two examples consist of an authorization request that is fully approved and the subsequent authorization reply, which includes balance information:

- Original request amount: 1500.00 USD
- Approved amount: 1500.00 USD
- Balance amount: 23.62 USD positive

Example 19   Fully Approved Authorization Request

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=AB1234.1-1
billTo_firstName=John
billTo_lastName=Smith
billTo_street1=201 S. Division St.
billTo_street2=Suite 500
billTo_city=Ann Arbor
billTo_state=MI
billTo_country=US
billTo_postalCode=48104-2201
billTo_email=okgo@example.com
billTo_phoneNumber=123-456-7890
card_accountNumber=4111111111111111
card_cardType=001
card_cvNumber=xxx
card_expirationMonth=12
card_expirationYear=2015
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=1500.00
```

Example 20   Fully Approved Authorization Reply

```
merchantReferenceCode=AB1234.1-1
requestID=2688497722340000852964
decision=ACCEPT
reasonCode=100
ccAuthReply_reasonCode=100
ccAuthReply_amount=1500.00
ccAuthReply_avsCode=A
ccAuthReply_avsCodeRaw=A
ccAuthReply_authorizationCode=831000
ccAuthReply_processorResponse=000
ccAuthReply_accountBalance=23.62
ccAuthReply_accountBalanceCurrency=USD
ccAuthReply_accountBalanceSign=positive
ccAuthReply_cardCategory=J1
ccAuthReply_cvCode=3
ccAuthReply_merchantAdviceCode=00
purchaseTotals_currency=USD
```

Partially Approved Request

The following two examples consist of an authorization request that is partially approved and the subsequent authorization reply:

- Original request amount: 1401.00 USD

- Approved amount: 500.00 USD

Example 21   Partially Approved Authorization Request

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=AB1234.1-1
billTo_firstName=John
billTo_lastName=Smith
billTo_street1=201 S. Division St.
billTo_street2=Suite 500
billTo_city=Ann Arbor
billTo_state=MI
billTo_country=US
billTo_postalCode=48104-2201
billTo_email=okgo@example.com
billTo_phoneNumber=123-456-7890
card_accountNumber=4111111111111111
card_cardType=001
card_cvNumber=xxx
card_expirationMonth=12
card_expirationYear=2015
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=1401.00
```

Example 22   Partially Approved Authorization Reply

```
merchantReferenceCode=AB1234.1-1
requestID=2688497722340000852964
decision=REJECT
reasonCode=110
ccAuthReply_reasonCode=110
ccAuthReply_amount=500.00
ccAuthReply_avsCode=A
ccAuthReply_avsCodeRaw=A
ccAuthReply_authorizationCode=831000
ccAuthReply_processorResponse=010
ccAuthReply_requestAmount=1401.00
ccAuthReply_requestCurrency=USD
ccAuthReply_cardCategory=J1
ccAuthReply_cvCode=3
ccAuthReply_merchantAdviceCode=00
purchaseTotals_currency=USD
```

Split Shipment Examples

One Authorization and One Sale

Example 23   Credit Card Authorization Request

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
billTo_firstName=John
billTo_lastName=Doe
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 24   Credit Card Authorization Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=0305782650000167905080
ccAuthReply_reasonCode=100
ccAuthReply_amount=49.95
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_authorizationCode=123456
ccAuthReply_processorResponse=A
purchaseTotals_currency=USD
```

Example 25   Sale Request

```
ccAuthService_run=true
ccCaptureService_run=true
linkToRequest=0305782650000167905080
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
billTo_firstName=John
billTo_lastName=Doe
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 26   Sale Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=1416783769994859
ccAuthReply_reasonCode=100
ccAuthReply_amount=49.95
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_authorizationCode=123456
ccAuthReply_processorResponse=A
purchaseTotals_currency=USD
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=49.95
ccCaptureReply_reconciliationID=02850840187309570
```

One Authorization and Two Captures

Example 27   Credit Card Authorization Request

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
billTo_firstName=John
billTo_lastName=Doe
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
item_0_unitPrice=52.00
item_0_quantity=1
item_1_unitPrice=16.00
item_1_quantity=1
purchaseTotals_currency=USD
```

Example 28   Credit Card Authorization Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=0305782650000167905080
ccAuthReply_reasonCode=100
ccAuthReply_amount=68.00
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_authorizationCode=123456
ccAuthReply_processorResponse=A
purchaseTotals_currency=USD
```

Example 29   First Credit Card Capture Request

```
ccCaptureService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
ccCaptureService_authRequestID=0305782650000167905080
item_0_unitPrice=52.00
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 30   First Credit Card Capture Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=1019827520348290570293
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=52.00
ccCaptureReply_reconciliationID=02850840187309570
purchaseTotals_currency=USD
```

Example 31   Second Credit Card Capture Request

```
ccCaptureService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
ccCaptureService_authRequestID=0305782650000167905080
item_0_unitPrice=16.00
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 32   Second Credit Card Capture Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=49601835arbl569cj
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=16.00
ccCaptureReply_reconciliationID=sl59vu2nh4ek9lq
purchaseTotals_currency=USD
```

Two Authorizations and One Capture

Example 33   First Credit Card Authorization Request

```
ccAuthService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
billTo_firstName=John
billTo_lastName=Doe
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 34   First Credit Card Authorization Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=0305782650000167905080
ccAuthReply_reasonCode=100
ccAuthReply_amount=49.95
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_authorizationCode=123456
ccAuthReply_processorResponse=A
purchaseTotals_currency=USD
```

Example 35   Second Credit Card Authorization Request

```
ccAuthService_run=true
linkToRequest=0305782650000167905080
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
billTo_firstName=John
billTo_lastName=Doe
billTo_phoneNumber=650-965-6000
billTo_email=jdoe@example.com
billTo_street1=1295 Charleston Rd.
billTo_city=Mountain View
billTo_state=CA
billTo_country=US
billTo_postalCode=94043
card_expirationMonth=12
card_expirationYear=2015
card_accountNumber=4111111111111111
card_cardType=001
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 36   Second Credit Card Authorization Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=1416783769994859
ccAuthReply_reasonCode=100
ccAuthReply_amount=49.95
ccAuthReply_avsCode=Y
ccAuthReply_avsCodeRaw=YYY
ccAuthReply_authorizationCode=123456
ccAuthReply_processorResponse=A
purchaseTotals_currency=USD
```

Example 37   Credit Card Capture Request

```
ccCaptureService_run=true
merchantID=Foster City Flowers
merchantReferenceCode=482046C3A7E94F5BD1
ccCaptureService_authRequestID=1416783769994859
item_0_unitPrice=49.95
item_0_quantity=1
purchaseTotals_currency=USD
```

Example 38   Credit Card Capture Reply

```
decision=ACCEPT
reasonCode=100
merchantReferenceCode=482046C3A7E94F5BD1
requestID=1019827520348290570293
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=49.95
ccCaptureReply_reconciliationID=02850840187309570
purchaseTotals_currency=USD
```

Visa Checkout Examples

Example 39   Credit Card Authorization Request

```
ccAuthService_run=true
merchantID=Foster_City_Flowers
merchantReferenceCode=123456
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=25.00
paymentSolution=visacheckout
vc_orderID=335161017227386762
```

Example 40   Credit Card Authorization Reply

```
ccAuthReply_amount=25.00
ccAuthReply_avsCode=Y
ccAuthReply_authorizationCode=831000
ccAuthReply_processorResponse=00
ccAuthReply_avsCodeRaw=Y
ccAuthReply_reasonCode=100
purchaseTotals_currency=USD
decision=ACCEPT
reasonCode=100
merchantReferenceCode=123456
requestID=4068437426340172492292
```

XML Examples

Basic Credit Card Examples

Example 41   Credit Card Authorization Request

```xml
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
    <merchantID>Napa Valley Vacations</merchantID>
    <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>1295 Charleston Rd.</street1>
        <city>Mountain View</city>
        <state>CA</state>
        <postalCode>94043</postalCode>
        <country>US</country>
        <phoneNumber>650-965-6000</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>001</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 42   Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.23">
    <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
    <c:requestID>0305782650000167905080</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>49.95</c:amount>
        <c:authorizationCode>123456</c:authorizationCode>
        <c:avsCode>Y</c:avsCode>
        <c:avsCodeRaw>YYY</c:avsCodeRaw>
        <c:processorResponse>A</c:processorResponse>
        <c:accountBalance>50.05</c:accountBalance>
    </c:ccAuthReply>
</c:replyMessage>
```

Example 43   Credit Card Capture Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.37">
    <merchantID>Napa Valley Vacations</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1FE3C66C</merchantReferenceCode>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <ccCaptureService run="true">
        <authRequestID>0305782650000167905080</authRequestID>
    </ccCaptureService>
</requestMessage>
```

Example 44   Credit Card Capture Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.37">
    <c:merchantReferenceCode>482046C3A7E94F5BD1FE3C66C</c:merchantReferenceCode>
    <c:requestID>1019827520348290570293</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccCaptureReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>49.95</c:amount>
        <c:reconciliationID>1094820975023470</c:reconciliationID>
    </c:ccCaptureReply>
</c:replyMessage>
```

Example 45   Credit Card Follow-on Credit Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
    <merchantID>Napa Valley Vacations</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BDC66C</merchantReferenceCode>
    <purchaseTotals>
        <currency>EUR</currency>
        <grandTotalAmount>1694.00</grandTotalAmount>
    </purchaseTotals>
    <ccCreditService run="true">
        <captureRequestID>1019827520348290570293</captureRequestID>
    </ccCreditService>
</requestMessage>
```

Example 46   Credit Card Follow-on Credit Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
    <c:merchantReferenceCode>482046C3A75BD1FE3C66C</c:merchantReferenceCode>
    <c:requestID>9057101982752034820293</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>EUR</c:currency>
    </c:purchaseTotals>
    <c:ccCreditReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>1694.00</c:amount>
        <c:reconciliationID>C3A7E94F5BD1FE3C64820466C</c:reconciliationID>
    </c:ccCreditReply>
</c:replyMessage>
```

Asia, Middle East, and Africa Gateway Examples

Example 47   Credit Card Authorization Request with Payer Authentication Data

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.32">
   <merchantID>Foster City Flowers</merchantID>
   <merchantReferenceCode>0123456789</merchantReferenceCode>
   <billTo>
      <firstName>John</firstName>
      <lastName>Doe</lastName>
      <street1>1295 Charleston Road</street1>
      <city>Mountain View</city>
      <state>CA</state>
      <postalCode>94043</postalCode>
      <country>US</country>
      <phoneNumber>650-965-6000</phoneNumber>
      <email>jdoe@example.com</email>
      <ipAddress>10.7.7.7</ipAddress>
   </billTo>
   <shipTo>
      <firstName>Jane</firstName>
      <lastName>Smith</lastName>
      <street1>1234 ABCD Street</street1>
      <city>Mountain View</city>
      <state>CA</state>
      <postalCode>94043</postalCode>
      <country>US</country>
   </shipTo>
   <item id="0">
      <unitPrice>12.34</unitPrice>
   </item>
   <item id="1">
      <unitPrice>56.78</unitPrice>
   </item>
   <purchaseTotals>
      <currency>USD</currency>
   </purchaseTotals>
   <card>
      <accountNumber>4111111111111111</accountNumber>
      <expirationMonth>12</expirationMonth>
      <expirationYear>2020</expirationYear>
      <cvNumber>1234</cvNumber>
      <cardType>001</cardType>
   </card>
   <ccAuthService run="true">
      <cavv>PpmBUYXt2uytV6p12345KuImAb8XgnOk</cavv>
      <commerceIndicator>vbv</commerceIndicator>
      <xid>WhPlErd9WE1234562pb1yFjFHlewUIQwQ</xid>
      <veresEnrolled>Y</veresEnrolled>
      <paresStatus>Y</paresStatus>
   </ccAuthService>
</requestMessage>
```

Example 48   Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.32">
    <c:merchantReferenceCode>0123456789</c:merchantReferenceCode>
    <c:requestID>1921312345620167904567</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>69.12</c:amount>
        <c:authorizationCode>ABC12345</c:authorizationCode>
        <c:avsCode>2</c:avsCode>
        <c:cvCode>2</c:cvCode>
        <c:cvCodeRaw>Q</c:cvCodeRaw>
        <c:processorResponse>0</c:processorResponse>
        <c:reconciliationID>19119123438</c:reconciliationID>
    </c:ccAuthReply>
</c:replyMessage>
```

Cielo Examples

Example 49   Automatic Capture Request with Elo

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>Transaction-Cielo-NTA-3</merchantReferenceCode>
    <billTo>
        <firstName>Júlia</firstName>
        <lastName>Fernández</lastName>
        <buildingNumber>1024</buildingNumber>
        <street1>R. Augustã</street1>
        <street2>Bloco 01</street2>
        <city>São Paulo</city>
        <district>Bela Vista</district>
        <state>SP</state>
        <postalCode>01310-000</postalCode>
        <country>BR</country>
        <phoneNumber>999-999-9999</phoneNumber>
        <email>jfernandez@example.com</email>
    </billTo>
    <purchaseTotals>
        <currency>usd</currency>
        <grandTotalAmount>104.00</grandTotalAmount>
    </purchaseTotals>
    <card>
        <accountNumber>1234567812345678</accountNumber>
        <expirationMonth>03</expirationMonth>
        <expirationYear>2031</expirationYear>
        <cardType>054</cardType>
    </card>
    <ccAuthService run="true">
        <authType>AUTOCAPTURE</authType>
    </ccAuthService>
    <ccCaptureService run="true"></ccCaptureService>
</requestMessage>
```

Example 50 Automatic Capture Reply with Elo

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.111">
   <c:merchantReferenceCode>Transaction-Cielo-NTA-3</c:merchantReferenceCode>
   <c:requestID>4231489930765000001540</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>104.00</c:amount>
      <c:authorizationCode>123456</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>CC</c:avsCodeRaw>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>Auth12345678</c:reconciliationID>
      <c:paymentNetworkTransactionID>333138</c:paymentNetworkTransactionID>
      <c:processorTransactionID>00142308609746028231</c:processorTransactionID>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>104.00</c:amount>
      <c:reconciliationID>Auth12345678</c:reconciliationID>
   </c:ccCaptureReply>
</c:replyMessage>
```

Example 51   Debit Card Request with Maestro (International)

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>Transaction-Cielo-NTA-4</merchantReferenceCode>
    <billTo>
        <firstName>Júlia</firstName>
        <lastName>Fernández</lastName>
        <buildingNumber>1024</buildingNumber>
        <street1>R. Augustã</street1>
        <street2>Bloco 01</street2>
        <city>São Paulo</city>
        <district>Bela Vista</district>
        <state>SP</state>
        <postalCode>01310-000</postalCode>
        <country>BR</country>
        <phoneNumber>999-999-9999</phoneNumber>
        <email>jfernandez@example.com</email>
    </billTo>
    <purchaseTotals>
        <currency>brl</currency>
        <grandTotalAmount>106.00</grandTotalAmount>
    </purchaseTotals>
    <card>
        <accountNumber>123456781234567812</accountNumber>
        <expirationMonth>03</expirationMonth>
        <expirationYear>2031</expirationYear>
        <cvIndicator>1</cvIndicator>
        <cvNumber>123</cvNumber>
        <cardType>042</cardType>
    </card>
    <ucaf>
        <authenticationData>WhPlErd9WE2pb1yFjFHlewUIQwQ=</authenticationData>
        <collectionIndicator>2</collectionIndicator>
    </ucaf>
    <ccAuthService run="true">
        <commerceIndicator>spa</commerceIndicator>
        <xid>lEmYpm61EduaVZjPG1/HsgkAAQc=</xid>
        <overridePaymentMethod>DB</overridePaymentMethod>
    </ccAuthService>
    <ccCaptureService run="true"></ccCaptureService>
</requestMessage>
```

Example 52   Debit Card Reply with Maestro (International)

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.111">
    <c:merchantReferenceCode>Transaction-Cielo-NTA-4</c:merchantReferenceCode>
    <c:requestID>4231489990775000001540</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>brl</c:currency>
    </c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>106.00</c:amount>
        <c:authorizationCode>123456</c:authorizationCode>
        <c:avsCode>Y</c:avsCode>
        <c:avsCodeRaw>CC</c:avsCodeRaw>
        <c:processorResponse>00</c:processorResponse>
        <c:reconciliationID>Auth12345678</c:reconciliationID>
        <c:paymentNetworkTransactionID>333138</c:paymentNetworkTransactionID>
        <c:processorTransactionID>00142308609746028231</c:processorTransactionID>
    </c:ccAuthReply>
    <c:ccCaptureReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>106.00</c:amount>
        <c:reconciliationID>Auth12345678</c:reconciliationID>
    </c:ccCaptureReply>
</c:replyMessage>
```

Example 53   Installment Request with Visa

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
   <merchantID>Foster City Flowers</merchantID>
   <merchantReferenceCode>Transaction-Cielo-NTA-1</merchantReferenceCode>
   <billTo>
      <firstName>Júlia</firstName>
      <lastName>Fernández</lastName>
      <buildingNumber>1024</buildingNumber>
      <street1>R. Augustã</street1>
      <street2>Bloco 01</street2>
      <city>São Paulo</city>
      <district>Bela Vista</district>
      <state>SP</state>
      <postalCode>01310-000</postalCode>
      <country>BR</country>
      <phoneNumber>999-999-9999</phoneNumber>
      <email>jfernandez@example.com</email>
   </billTo>
   <item id="0">
      <unitPrice>51025.00</unitPrice>
      <quantity>1</quantity>
   </item>
   <purchaseTotals>
      <currency>brl</currency>
   </purchaseTotals>
   <installment>
      <totalCount>4</totalCount>
      <planType>1</planType>
   </installment>
   <card>
      <accountNumber>4111111111111111</accountNumber>
      <expirationMonth>12</expirationMonth>
      <expirationYear>2018</expirationYear>
      <cardType>001</cardType>
   </card>
   <ccAuthService run="true"></ccAuthService>
</requestMessage>
```

Example 54   Installment Reply with Visa

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.111">
   <c:merchantReferenceCode>Transaction-Cielo-NTA-1</c:merchantReferenceCode>
   <c:requestID>4231493140785000001540</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>brl</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>51025.00</c:amount>
      <c:authorizationCode>123456</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>CC</c:avsCodeRaw>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>Auth12345678</c:reconciliationID>
      <c:paymentNetworkTransactionID>333138</c:paymentNetworkTransactionID>
      <c:processorTransactionID>00142308609746028231</c:processorTransactionID>
   </c:ccAuthReply>
</c:replyMessage>
```

CyberSource Latin American Processing Examples

> **Note**
>
> *CyberSource Latin American Processing* is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. These examples are for the specific processing connection called *CyberSource Latin American Processing*. They are not for any other Latin American processors that CyberSource supports.

Example 55   Credit Card Authorization Request for Redecard in Brazil with AVS

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.41">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>1234567890</merchantReferenceCode>
    <billTo>
        <firstName>Adriana</firstName>
        <lastName>Tavares da Silva</lastName>
        <street1>Rua da Quitanda 187</street1>
        <city>Rio de Janeiro</city>
        <postalCode>20091-005</postalCode>
        <country>BR</country>
        <phoneNumber>+552121114700</phoneNumber>
        <email>asilva@example.com</email>
        <personalID>987654321</personalID>
        <buildingNumber>187</buildingNumber>
    </billTo>
    <item id="0"><unitPrice>49.95</unitPrice></item>
    <purchaseTotals><currency>BRL</currency></purchaseTotals>
    <card>
        <accountNumber>5432543254325432</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>052</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 56   Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.41">
    <c:merchantReferenceCode>1234567</c:merchantReferenceCode>
    <c:requestID>12345678901234567890</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals><c:currency>BRL</c:currency></c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>49.95</c:amount>
        <c:authorizationCode>123456</c:authorizationCode>
        <c:avsCode>V</c:avsCode>
        <c:personalIDCode>Y</c:personalIDCode>
        <c:reconciliationID>19119123456</c:reconciliationID>
    </c:ccAuthReply>
</c:replyMessage>
```

Partial Authorization Examples

Fully Approved Request

The following two examples consist of an authorization request that is fully approved and the subsequent authorization reply, which includes balance information:

■ Original request amount: 1500.00 USD

■ Approved amount: 1500.00 USD

■ Balance amount: 23.62 USD positive

Example 57   Fully Approved Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
   <merchantID>Foster City Flowers</merchantID>
   <merchantReferenceCode>AB1234.1-1</merchantReferenceCode>
   <billTo>
      <firstName>John</firstName>
      <lastName>Smith</lastName>
      <street1>201 S. Division St.</street1>
      <street2>Suite 500</street2>
      <city>Ann Arbor</city>
      <state>MI</state>
      <postalCode>48104-2201</postalCode>
      <country>US</country>
      <phoneNumber>123-456-7890</phoneNumber>
      <email>okgo@example.com</email>
   </billTo>
   <purchaseTotals>
      <currency>USD</currency>
      <grandTotalAmount>1500.00</grandTotalAmount>
   </purchaseTotals>
   <card>
      <accountNumber>4111111111111111</accountNumber>
      <expirationMonth>12</expirationMonth>
      <expirationYear>2015</expirationYear>
      <cvNumber>xxx</cvNumber>
      <cardType>001</cardType>
   </card>
   <ccAuthService run="true"/>
</requestMessage>
```

Example 58 Fully Approved Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.52">
   <c:merchantReferenceCode>AB1234.1-1</c:merchantReferenceCode>
   <c:requestID>26884977223400000852964</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals><c:currency>USD</c:currency></c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>1500.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>A</c:avsCode>
      <c:avsCodeRaw>A</c:avsCodeRaw>
      <c:cvCode>3</c:cvCode>
      <c:processorResponse>000</c:processorResponse>
      <c:merchantAdviceCode>00</c:merchantAdviceCode>
      <c:accountBalance>23.62</c:accountBalance>
      <c:cardCategory>J1</c:cardCategory>
      <c:accountBalanceCurrency>USD</c:accountBalanceCurrency>
      <c:accountBalanceSign>positive</c:accountBalanceSign>
   </c:ccAuthReply>
</c:replyMessage>
```

Partially Approved Request

The following two examples consist of an authorization request that is partially approved and the subsequent authorization reply:

- Original request amount: 1401.00 USD

- Approved amount: 500.00 USD

Example 59 Partially Approved Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.52">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>AB1234.1-1</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Smith</lastName>
        <street1>201 S. Division St.</street1>
        <street2>Suite 500</street2>
        <city>Ann Arbor</city>
        <state>MI</state>
        <postalCode>48104-2201</postalCode>
        <country>US</country>
        <phoneNumber>123-456-7890</phoneNumber>
        <email>okgo@example.com</email>
    </billTo>
    <purchaseTotals>
        <currency>USD</currency>
        <grandTotalAmount>1401.00</grandTotalAmount>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cvNumber>xxx</cvNumber>
        <cardType>001</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 60   Partially Approved Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.52">
   <c:merchantReferenceCode>AB1234.1-1</c:merchantReferenceCode>
   <c:requestID>2688497722340000852964</c:requestID>
   <c:decision>REJECT</c:decision>
   <c:reasonCode>110</c:reasonCode>
   <c:purchaseTotals><c:currency>USD</c:currency></c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>110</c:reasonCode>
      <c:amount>500.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>A</c:avsCode>
      <c:avsCodeRaw>A</c:avsCodeRaw>
      <c:cvCode>3</c:cvCode>
      <c:processorResponse>010</c:processorResponse>
      <c:merchantAdviceCode>00</c:merchantAdviceCode>
      <c:cardCategory>J1</c:cardCategory>
      <c:requestAmount>1401.00</c:requestAmount>
      <c:requestCurrency>USD</c:requestCurrency>
   </c:ccAuthReply>
</c:replyMessage>
```

Split Shipment Examples

One Authorization and One Sale

Example 61   Credit Card Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>1295 Charleston Rd.</street1>
        <city>Mountain View</city>
        <state>CA</state>
        <postalCode>94043</postalCode>
        <country>US</country>
        <phoneNumber>650-965-6000</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>001</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 62   Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
   <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>49.95</c:amount>
      <c:authorizationCode>123456</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>YYY</c:avsCodeRaw>
      <c:processorResponse>A</c:processorResponse>
   </c:ccAuthReply>
</c:replyMessage>
```

Example 63   Sale Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>1295 Charleston Rd.</street1>
        <city>Mountain View</city>
        <state>CA</state>
        <postalCode>94043</postalCode>
        <country>US</country>
        <phoneNumber>650-965-6000</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>001</cardType>
    </card>
    <linkToRequest>0305782650000167905080</linkToRequest>
    <ccAuthService run="true"/>
    <ccCaptureService run="true"/>
</requestMessage>
```

Example 64   Sale Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
   <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>49.95</c:amount>
      <c:authorizationCode>123456</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>YYY</c:avsCodeRaw>
      <c:processorResponse>A</c:processorResponse>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>49.95</c:amount>
      <c:reconciliationID>02850840187309570</c:reconciliationID>
   </c:ccCaptureReply>
</c:replyMessage>
```

One Authorization and Two Captures

Example 65   Credit Card Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>1295 Charleston Rd.</street1>
        <city>Mountain View</city>
        <state>CA</state>
        <postalCode>94043</postalCode>
        <country>US</country>
        <phoneNumber>650-965-6000</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>52.00</unitPrice>
        <quantity>1</quantity>
    </item>
    <item id="1">
        <unitPrice>16.00</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>001</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 66 Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
    <c:requestID>0305782650000167905080</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>68.00</c:amount>
        <c:authorizationCode>123456</c:authorizationCode>
        <c:avsCode>Y</c:avsCode>
        <c:avsCodeRaw>YYY</c:avsCodeRaw>
        <c:processorResponse>A</c:processorResponse>
    </c:ccAuthReply>
</c:replyMessage>
```

Example 67 First Credit Card Capture Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <item id="0">
        <unitPrice>52.00</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <ccCaptureService run="true">
        <authRequestID>0305782650000167905080</authRequestID>
    </ccCaptureService>
</requestMessage>
```

Example 68   First Credit Card Capture Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
    <c:requestID>1019827520348290570293</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccCaptureReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>52.00</c:amount>
        <c:reconciliationID>02850840187309570</c:reconciliationID>
    </c:ccCaptureReply>
</c:replyMessage>
```

Example 69   Second Credit Card Capture Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <item id="0">
        <unitPrice>16.00</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <ccCaptureService run="true">
        <authRequestID>0305782650000167905080</authRequestID>
    </ccCaptureService>
</requestMessage>
```

Example 70   Second Credit Card Capture Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
    <c:requestID>1019827520348290570293</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccCaptureReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>16.00</c:amount>
        <c:reconciliationID>sl59vu2nh4ek9lq</c:reconciliationID>
    </c:ccCaptureReply>
</c:replyMessage>
```

Two Authorizations and One Capture

Example 71   First Credit Card Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>1295 Charleston Rd.</street1>
        <city>Mountain View</city>
        <state>CA</state>
        <postalCode>94043</postalCode>
        <country>US</country>
        <phoneNumber>650-965-6000</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <card>
        <accountNumber>4111111111111111</accountNumber>
        <expirationMonth>12</expirationMonth>
        <expirationYear>2015</expirationYear>
        <cardType>001</cardType>
    </card>
    <ccAuthService run="true"/>
</requestMessage>
```

Example 72   First Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
   <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>49.95</c:amount>
      <c:authorizationCode>123456</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>YYY</c:avsCodeRaw>
      <c:processorResponse>A</c:processorResponse>
   </c:ccAuthReply>
</c:replyMessage>
```

Example 73   Second Credit Card Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
   <merchantID>Foster City Flowers</merchantID>
   <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
   <billTo>
      <firstName>John</firstName>
      <lastName>Doe</lastName>
      <street1>1295 Charleston Rd.</street1>
      <city>Mountain View</city>
      <state>CA</state>
      <postalCode>94043</postalCode>
      <country>US</country>
      <phoneNumber>650-965-6000</phoneNumber>
      <email>jdoe@example.com</email>
   </billTo>
   <item id="0">
      <unitPrice>49.95</unitPrice>
      <quantity>1</quantity>
   </item>
   <purchaseTotals>
      <currency>USD</currency>
   </purchaseTotals>
   <card>
      <accountNumber>4111111111111111</accountNumber>
      <expirationMonth>12</expirationMonth>
      <expirationYear>2015</expirationYear>
      <cardType>001</cardType>
   </card>
   <linkToRequest>0305782650000167905080</linkToRequest>
   <ccAuthService run="true"/>
</requestMessage>
```

Example 74   Second Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
    <c:requestID>1416783769994859</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccAuthReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>49.95</c:amount>
        <c:authorizationCode>123456</c:authorizationCode>
        <c:avsCode>Y</c:avsCode>
        <c:avsCodeRaw>YYY</c:avsCodeRaw>
        <c:processorResponse>A</c:processorResponse>
    </c:ccAuthReply>
</c:replyMessage>
```

Example 75   Credit Card Capture Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.40">
    <merchantID>Foster City Flowers</merchantID>
    <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
    <item id="0">
        <unitPrice>49.95</unitPrice>
        <quantity>1</quantity>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <ccCaptureService run="true">
        <authRequestID>1416783769994859</authRequestID>
    </ccCaptureService>
</requestMessage>
```

Example 76   Credit Card Capture Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <c:merchantReferenceCode>482046C3A7E94F5BD1</c:merchantReferenceCode>
    <c:requestID>1019827520348290570293</c:requestID>
    <c:decision>ACCEPT</c:decision>
    <c:reasonCode>100</c:reasonCode>
    <c:purchaseTotals>
        <c:currency>USD</c:currency>
    </c:purchaseTotals>
    <c:ccCaptureReply>
        <c:reasonCode>100</c:reasonCode>
        <c:amount>49.95</c:amount>
        <c:reconciliationID>02850840187309570</c:reconciliationID>
    </c:ccCaptureReply>
</c:replyMessage>
```

Visa Checkout Examples

Example 77   Credit Card Authorization Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.105">
    <merchantID>Foster_City_Flowers</merchantID>
    <merchantReferenceCode>123456</merchantReferenceCode>
    <purchaseTotals>
        <currency>USD</currency>
        <grandTotalAmount>25.00</grandTotalAmount>
    </purchaseTotals>
    <ccAuthService_run="true"/>
    <paymentSolution>visacheckout</paymentSolution>
    <vc><orderID>335161017227386762</orderID></vc>
</requestMessage>
```

Example 78   Credit Card Authorization Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.105">
   <c:merchantReferenceCode>123456</c:merchantReferenceCode>
   <c:requestID>4068437426340172492292</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>25.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>Y</c:avsCode>
      <c:avsCodeRaw>Y</c:avsCodeRaw>
      <c:processorResponse>00</c:processorResponse>
   </c:ccAuthReply>
</c:replyMessage>
```

Additional Amount Types

Additional amount types are used with additional amounts, which are described in "Additional Amounts," page 100.

Table 69   Additional Amount Types for Goods and Services

Goods and Services	Code
Bar	019
Bar/Mini-Bar	023
Barber/Beauty Salon	028
Beverage	017
Business Center	036
Catering Charges	022
Convention Fees	037
Food	016
Food/Beverage	018
Gift Shop	030
Health & Fitness	029
Internet Service	025
Insurance Purchased	052
Laundry/Dry-Cleaning	027
Lodging	020
Movies/Pay-Per-View	026
Pet Fees	033
Phone	024
Pro Shop	031
Restaurant/Room Service	021
Reward Program Transaction	047
Tip/Gratuity	058

Table 70   Additional Amount Types for Charges and Fees

Charges and Fees	Code
Additional Miles/Kilometers/Distance	062
Auto Rental Adjustment	060
Cancellation Adjustment	065
Charges Added After Check-Out/Departure	041
Convenience Charge	050
Delivery Charge	051
Discount	053
Equipment Rental	035
Express Service Charge	040
Freight/Shipping/Handling	055
Fuel Charge	061
Late Return	063
Meeting/Conference Charges	038
Misc Charges/Fees	042
No Show Charge	039
Order Processing Charge	049
Parking Fee	032
Policy Adjustment	066
Repairs	064
Surcharge	048
Tickets/Violations	054
Tours	034

Table 71   Additional Amount Types for Taxes

Taxes	Code
Goods and Services Tax CODE (GST)	001
Consumption Tax	002
Provincial Sales Tax (PST)	003
Quebec Sales Tax (QST)	004
Harmonized Sales Tax (HST)	005
Insurance Premium Tax (IPT)	006
Circulation of Merchandise and Service Tax (ICMS)	007
Industrialized Products Federal Tributary Tax (IPI Federal Tributary)	008
Inland Revenue Income Tax (IR Income Tax)	009

Table 71   Additional Amount Types for Taxes (Continued)

Taxes	Code
International Students and Scholars Income Tax (ISS Income Tax)	010
Income Security and Reform Tax (ISR Income Tax)	011
Occupancy Tax	012
Room Tax	013
Surcharge Tax	014
Airport Tax	015
Ticket Tax	043
Miscellaneous Tax	046
Sales Tax	056
Stamp Duty	067
Value Added Tax (VAT)	057
Exempt - No GST charged	068

American Express SafeKey Response Codes

The American Express SafeKey response code is returned in **ccAuthReply_ cavvResponseCode** in the reply message for an authorization request. See "American Express SafeKey," page 197, for a description of American Express SafeKey.

Table 72   American Express SafeKey Response Codes

Response Code	Description
1	CAVV failed validation and authentication.
2	CAVV passed validation and authentication.
3	CAVV passed the validation attempt.
4	CAVV failed the validation attempt.
7	CAVV failed the validation attempt and the issuer is available.
8	CAVV passed the validation attempt and the issuer is available.
9	CAVV failed the validation attempt and the issuer is not available.
A	CAVV passed the validation attempt and the issuer is not available.
U	Issuer does not participate or 3-D secure data was not used.
99	An unknown value was returned from the processor.

AVS Codes

The AVS code is returned in **ccAuthReply_avsCode** in the authorization reply message. See "Address Verification System (AVS)," page 72, for a description of AVS.

AVS Codes for CyberSource Latin American Processing

Note

CyberSource Latin American Processing is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, *CyberSource Latin American Processing* does not refer to the general topic of processing in Latin America. The information in this section is for the specific processing connection called *CyberSource Latin American Processing*. It is not for any other Latin American processors that CyberSource supports.

Table 73   AVS Codes for CyberSource Latin American Processing

Code	Description
D	Partial match: postal code and address match.
E	Not supported: AVS is not supported for this card type. *or* Invalid: the acquirer returned an unrecognized value for the AVS response.
F	Partial match: postal code matches, but CPF and address do not match. [1]
G	Not supported: AVS not supported or not verified.
I	No match: AVS information is not available.
K	Partial match: CPF matches, but postal code and address do not match. [1]
L	Partial match: postal code and CPF match, but address does not match. [1]
N	No match: postal code, CPF, and address do not match. [1]

1 CPF (Cadastro de Pessoas Fisicas) is required only for Redecard in Brazil.

Table 73   AVS Codes for CyberSource Latin American Processing (Continued)

Code	Description
O	Partial match: CPF and address match, but postal code does not match. [1]
R	Not supported: your implementation does not support AVS. *or* System unavailable.
T	Partial match: address matches, but postal code and CPF do not match. [1]
V	Match: postal code, CPF, and address match. [1]

1 CPF (Cadastro de Pessoas Fisicas) is required only for Redecard in Brazil.

AVS Codes for All Other Processors

Table 74   Types of AVS Codes

Type of Codes	Codes	Description
Codes for American Express Cards	F, H, K, L, O, T, V	For American Express cards only. For American Express cards, you can receive Visa and CyberSource AVS codes in addition to the American Express AVS codes.
		Note For CyberSource through VisaNet, the American Express AVS codes are converted to Visa AVS codes before they are returned to you. As a result, you will not receive American Express AVS codes for the American Express card type.

Table 74   Types of AVS Codes (Continued)

Type of Codes	Codes	Description
International Visa Codes	B, C, D, G, I, M, P	The international and domestic alphabetic AVS codes are the Visa standard AVS codes. CyberSource maps the standard AVS return codes for other types of credit cards, including American Express cards, to the Visa standard AVS codes.
Domestic Visa Codes	A, E, N, R, S, U, W, X, Y, Z	
		AVS is considered either domestic or international, depending on the location of the bank that issued the customer's credit card:
		■ When the bank is in the U.S., the AVS is domestic.
		■ When the bank is outside the U.S., the AVS is international.
		You should be prepared to handle both domestic and international AVS result codes:
		■ For international cards, you can receive domestic AVS codes in addition to the international AVS codes.
		■ For domestic cards, you can receive international AVS codes in addition to the domestic AVS codes.
CyberSource Codes	1, 2, 3, 4	The numeric AVS codes are created by CyberSource and are not standard Visa codes. These AVS codes can be returned for any card type.

Table 75   AVS Codes

Code	Description
A	Partial match: street address matches, but 5-digit and 9-digit postal codes do not match.
B	Partial match: street address matches, but postal code is not verified. Returned only for Visa cards not issued in the U.S.
C	No match: street address and postal code do not match. Returned only for Visa cards not issued in the U.S.
D & M	Match: street address and postal code match. Returned only for Visa cards not issued in the U.S.
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.
G	Not supported: issuing bank outside the U.S. does not support AVS.
H	Partial match: card member's name does not match, but street address and postal code match. Returned only for the American Express card type.
I	No match: address not verified. Returned only for Visa cards not issued in the U.S.
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.

Table 75   AVS Codes (Continued)

Code	Description
L	Partial match: card member's name and billing postal code match, but billing address does not match. Returned only for the American Express card type.
M	See the entry for D & M.
N	No match: one of the following: ■ Street address and postal code do not match. ■ Card member's name, street address, and postal code do not match. Returned only for the American Express card type.
O	Partial match: card member's name and billing address match, but billing postal code does not match. Returned only for the American Express card type.
P	Partial match: postal code matches, but street address not verified. Returned only for Visa cards not issued in the U.S.
R	System unavailable.
S	Not supported: issuing bank in the U.S. does not support AVS.
T	Partial match: card member's name does not match, but street address matches. Returned only for the American Express card type.
U	System unavailable: address information unavailable for one of these reasons: ■ The U.S. bank does not support AVS outside the U.S. ■ 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: one of the following: ■ AVS is not supported for this processor or card type. ■ AVS is disabled for your CyberSource account. To enable AVS, contact CyberSource Customer Support.
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.
5	No match: no AVS code was returned by the processor.

Card Types

The following table lists the card type values to use in **ccAuthService** and **ccCreditService** requests. To see which cards can be handled by each processor, see .

![Important] CyberSource strongly recommends that you send the card type even if it is optional for your processor and card type. Omitting the card type can cause the transaction to be processed with the wrong card type.

Table 76   Card Types for Authorizations and Credits

Value	Card Type
`001`	Visa
	For all processors except Ingenico ePayments, the Visa Electron card type is processed the same way that the Visa debit card is processed. Use card type value `001` for Visa Electron.
	Note Ingenico ePayments was previously called *Global Collect*.
`002`	Mastercard, Eurocard[1]: European regional brand of Mastercard
`003`	American Express
`004`	Discover
`005`	Diners Club: see "Discover Acquisitions and Alliances," page 18.
`006`	Carte Blanche[1]
`007`	JCB[1]
`014`	EnRoute[1]
`021`	JAL[1]
`024`	Maestro (UK Domestic)[1]
`027`	NICOS house card[1]
`031`	Delta[1]: Use this value only for Ingenico ePayments. For other processors, use `001` for all Visa card types.
	Note Ingenico ePayments was previously called *Global Collect*.

1 For this card type, you must include the **card_type** field in your request for an authorization or a stand-alone credit.

Table 76   Card Types for Authorizations and Credits (Continued)

Value	Card Type
033	Visa Electron[1]: Use this value only for Ingenico ePayments. For other processors, use 001 for all Visa card types. **Note** Ingenico ePayments was previously called *Global Collect*.
034	Dankort[1]
036	Carte Bleue[1]
037	Carta Si[1]
039	Encoded account number[1]
040	UATP[1]
042	Maestro (International)[1]
050	Hipercard
051	Aura
053	ORICO house card[1]
054	Elo

1 For this card type, you must include the **card_type** field in your request for an authorization or a stand-alone credit.

Commerce Indicators

The commerce indicator is a request value that you send in the **ccAuthService_commerceIndicator** and **ccCreditService_commerceIndicator** fields.

Table 77   Commerce Indicators

Values	Description
`aesk` and `aesk_attempted`	See "American Express SafeKey," page 197.
`install` and `install_internet`	See "Installment Payments," page 128.
`internet` (default)	E-commerce order placed using a web site. On Ingenico ePayments, `internet` is supported only for Carte Bleue transactions. **Note** Ingenico ePayments was previously called *Global Collect*.
`js` and `js_attempted`	See "JCB J/Secure," page 191.
`moto`	Mail order or telephone order. Not supported on Cielo or UATP. On Ingenico ePayments, `moto` is supported only for Carte Bleue transactions. **Note** Ingenico ePayments was previously called *Global Collect*.
`moto_cc`	Mail order or telephone order from a call center. This value is available only on the Asia, Middle East, and Africa Gateway.
`recurring` and `recurring_internet`	See "Recurring Payments," page 202. ■ `recurring`—U.S. transaction or non-U.S. mail order / telephone order (MOTO) transaction ■ `recurring_internet`—non-U.S. e-commerce (internet) transaction
`retail`	See *Card-Present Processing Using the Simple Order API.*

Table 77   Commerce Indicators (Continued)

Values	Description

`spa`
and
`spa_failure`
	See "Mastercard SecureCode," page 191.

`vbv,`
`vbv_attempted,`
and
`vbv_failure`
	See "Verified by Visa," page 184.

CVN Codes

The CVN code is returned in **ccAuthReply_cvCode** in the authorization reply message. See "Card Verification Numbers (CVNs)," page 81, for a description of CVN.

Table 78   CVN Codes

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

CyberSource through VisaNet Acquirers

> **Note** The Visa Electron card type is processed the same way that the Visa debit card is processed. Use card type value `001` (Visa) for Visa Electron.

The following acquirers are supported for CyberSource through VisaNet:

- Absa Bank: Visa, Mastercard, JCB, Diners Club

- Agricultural Bank of China (ABC): Visa, Mastercard, American Express, JCB, Diners Club

> **Note** CyberSource through VisaNet cannot process domestic transactions in China. CyberSource through VisaNet can process only cross-border transactions. A *cross-border* transaction is a transaction for which the credit card is issued in another country and accepted by a merchant in China.

- Ahli United Bank in Bahrain: Visa, Mastercard, JCB, Diners Club

- Arab African International Bank (AAIB): Visa, Mastercard, JCB

- Asia Commercial Bank (ACB): Visa, Mastercard, JCB

- Auckland Savings Bank (ASB): Visa, Mastercard

- Australia and New Zealand Banking Group Limited (ANZ): Visa, Mastercard

- Axis Bank Ltd. of India: Visa, Mastercard, Diners Club

- Banco Nacional de México (Banamex): Visa, Mastercard, American Express, Discover, JCB, Diners Club

- Bangkok Bank Ltd.: Visa, Mastercard, JCB

- Bank Muscat of Oman: Visa, Mastercard, American Express, Diners Club

- Bank of Ayudhya (BAY): Visa, Mastercard, JCB

- Bank of China (BOC): Visa, Mastercard

- Bank of Communications: Visa, Mastercard

> **Note** CyberSource through VisaNet cannot process domestic transactions in China. CyberSource through VisaNet can process only cross-border transactions. A *cross-border* transaction is a transaction for which the credit card is issued in another country and accepted by a merchant in China.

- Banque Pour Le Commerce Exterieur Lao (BCEL): Visa, Mastercard, American Express, JCB

- Barclays Bank Botswana: Visa, Mastercard, American Express

- Barclays Bank Mauritius Limited: Visa, Mastercard, American Express

- Barclays Bank of Ghana Limited, Barclays Bank of Tanzania Limited, and Barclays Bank of Uganda Limited: Visa, Mastercard, American Express

- Barclays Bank of Kenya: Visa, Mastercard, American Express

- Barclays Bank of Zambia: Visa, Mastercard, American Express

- Barclays Bank Seychelles: Visa, Mastercard, American Express

- BLOM Bank: Visa, Mastercard

- Citibank Hongkong and Macau: Visa, Mastercard, Diners Club, JCB

- Citibank Singapore Ltd.: Visa, Mastercard, JCB

- Commercial Bank of Qatar: Visa, Mastercard, American Express, JCB, Diners Club

- CrediMax (Bahrain): Visa, Mastercard, American Express, JCB, Diners Club

- CTBC Bank Ltd.: Visa, Mastercard, JCB

- FirstRand Bank: Visa, Mastercard, American Express, Diners Club

- Global Payment Asia Pacific: Visa, Mastercard, JCB

> **Note** In India, the only supported card types are Visa and Mastercard. All three card types (Visa, Mastercard, JCB) are supported in all other countries that Global Payment Asia Pacific covers.

- Habib Bank Ltd. (HBL): Visa, Mastercard, American Express, JCB, Diners Club

- HDFC Bank Ltd. of India: Visa, Mastercard, Diners Club

- I&M Bank: Visa, Mastercard

- ICICI of India: Visa, Mastercard

- Korea Exchange Bank (KEB): Visa, Mastercard, JCB

> **Note**   CyberSource through VisaNet cannot process domestic transactions in Korea. CyberSource through VisaNet can process only cross-border transactions. A *cross-border* transaction is a transaction for which the credit card is issued in another country and accepted by a merchant in Korea.

- Mashreq: Visa, Mastercard, American Express, JCB, Diners Club

- Maybank: Visa, Mastercard, American Express, JCB

- National Bank of Abu Dhabi (NBAD): Visa, Mastercard, JCB, Diners Club

- National Bank of Kuwait (NBK): Visa, Mastercard, Diners Club

- National Commercial Bank: Visa, Mastercard

- Network International: Visa, Mastercard, JCB, Diners Club

- Overseas Chinese Banking Corp (OCBC): Visa, Mastercard

- PT Bank Negara Indonesia: Visa, Mastercard

- Qatar National Bank (QNB Group): Visa, Mastercard, American Express, JCB, Diners Club

- Sacombank: Visa, Mastercard, JCB

- United Overseas Bank (UOB) in Singapore and Vietnam: Visa, Mastercard, JCB

- United Overseas Bank (UOB) in Thailand: Visa, Mastercard

- Vantiv: Visa, Mastercard, American Express, Discover, JCB, Diners Club

- Vietcombank: Visa, Mastercard, American Express, JCB, Diners Club

- VietinBank: Visa, Mastercard, JCB, Diners Club

- Visa Guatemala: Visa

- VisaNet Uruguay: Visa

- Westpac: Visa, Mastercard

- Wing Hang Bank: Visa, Mastercard

- Wing Lung Bank: Visa, Mastercard

Electronic Verification Response Codes

See "Electronic Verification (EV)," page 79, for a list of the fields in which the Electronic Verification response codes are returned. The following table describes the mapped response codes.

Table 79   Electronic Verification Mapped Response Codes

Response Code	Description
F	First name matches; last name does not match.
L	Last name matches; first name does not match.
M	First name and last name match.
N	No, the data does not match.
P	The processor did not return verification information.
R	The system is unavailable, so retry.
S	The verification service is not available.
U	Verification information is not available.
Y	Yes, the data matches.
1	Electronic verification did not generate a response.
2	The processor returned an unrecognized value.

Formats for Discretionary Data

This appendix provides examples of the formats for discretionary data for specific acquirers. In request messages, you can include discretionary data in the **issuer_additionalData** field. In reply messages, discretionary data can be sent to you in the same field.

> **Note**
>
> CyberSource recommends that you contact your acquirer for information about the formats to use.

Example for Visa Guatemala

This example is for issuer-funded installment payments. Additional formats exist; the issuers and acquirers work together to develop and reach consensus on the formats.

Example 79   Discretionary Data Format for Issuer-Funded Installment Payments with Visa Guatemala

```
VC10000000050000
```

Table 80   Discretionary Data Format for Issuer-Funded Installment Payments with Visa Guatemala

Position (Character or Digit #)	Number of Characters or Digits	Description
1-2	2	Prefix. Set this value to VC.
3-4	2	Total number of installments.
5-16	12	Total amount.

Example for VisaNet Uruguay

This example is for issuer-funded installment payments. Additional formats exist; the issuers and acquirers work together to develop and reach consensus on the formats.

Example 80   Discretionary Data Format for Issuer-Funded Installment Payments with VisaNet Uruguay

```
00612012345678910000000008160003359
```

Table 81   Discretionary Data Format for Issuer-Funded Installment Payments with VisaNet Uruguay

Position (Character or Digit #)	Number of Characters or Digits	Description
1-2	2	Plan type. Set this value to `00`. Specifies that the transaction is an e-commerce transaction.
3	1	Grace period. Number of months that the issuer waits before charging customers.
4-5	2	Total number of installments. Possible values: `00` through `99`.
6	1	POS entry mode. Set this value to `0`. Specifies that the transaction is an e-commerce transaction.
7-15	9	Identity document number. Set this value to the number on the cardholder's identity document or leave it blank. Format: right justified with 0 (zero) padding on the left.
16	1	Financial inclusion law indicator. Possible values: ■ `1`: Law 17934 ■ `2`: Law 18099 ■ `3`: Asignaciones familiares (AFAM) (family allowance program) ■ `4`: Real state law ■ `5`: Law 19210
17-28	12	Financial inclusion amount. This value is the amount the bank returns to the cardholder.
29-35	7	Merchant-generated invoice number.

Frequently Asked Questions

What kind of bank account do I need to accept credit card payments?

You need a merchant bank account that is configured to process card-not-present or mail order/telephone order (MOTO) transactions. See "Acquiring (Merchant) Banks," page 22.

What types of credit cards can my customers use?

CyberSource can accept payments made with numerous types of credit cards, including Visa, Mastercard, Discover, and American Express. In addition, CyberSource can accept most offline debit cards, which are also known as check cards, many private label cards, and Level II purchasing cards. Your payment processor can limit the types of cards that you can accept. See "Payment Processors," page 26, or contact your CyberSource account representative.

Do I need to sign agreements with the payment card companies?

Some credit card companies, such as American Express and Discover, require you to sign agreements with them. For other card types, such as Visa and Mastercard, you can usually sign a single contract with your acquiring bank or payment processor. Your acquiring bank can help ensure that you sign all of the necessary agreements.

Can I use more than one payment processor or merchant account provider?

Yes. CyberSource can provide you with multiple CyberSource merchant IDs and configure each one to use a different payment processor or merchant account provider.

What happens when my customers commit fraud?

You could be liable for fraudulent transactions. When customers complain that you charged their accounts improperly, you might be required to return their money at your expense; this is known as a chargeback. If you receive a large number of chargebacks, or if a large number of your customers commit fraud, your acquiring bank might raise your fees or revoke your merchant bank account. Contact your CyberSource account representative for information about CyberSource products that can help prevent fraud.

When do authorizations expire?

Most authorizations expire within five to seven days, but the bank or company that issued the card decides how long an authorization lasts.

When an authorization expires, will I be able to charge my customer?

Yes. CyberSource is not notified when an authorization expires, so it is possible to capture an expired authorization. However, the capture might be downgraded, which would increase your fees for the transaction. Additionally, the payment card company can decide not to capture expired authorizations.

If you believe that an authorization expired, you can request a new authorization, then capture the new authorization. However, the new authorization could be denied if the customer's credit limit has been exceeded, if the card has expired, or if the card has been cancelled.

Can I reverse an authorization?

Yes. Some processors allow you to reverse an authorization, which releases the hold that the authorization placed on the customer's credit card funds. For the list of processors that allow you to reverse an authorization, see "Reversing an Authorization," page 41.

If your processor does not support authorization reversals and you need to reverse an authorization, contact the customer's issuing bank or wait for the authorization to expire.

Can I cancel a capture or credit?

Yes. For some processors, you can use the void service to cancel a capture or credit that you have previously requested. You must request the void before CyberSource submits the capture or credit request to your payment processor. See "Voiding a Capture or Credit," page 69.

How can I prevent my customers from clicking the "Buy" button more than once?

Use one or more of these options:

- After a customer clicks the "Buy" button, send the customer to a new web page
- After a customer clicks the "Buy" button, hide or disable the button

The Support Center provides sample JavaScript code to disable the "Buy" button after a customer clicks it. The code is available at:

http://www.cybersource.com/support_center/implementation/best_practices/view.xml?page_id=415

Can I change the company name and phone number that appears on my customers' credit card statements?

CyberSource permits you to change these values, which are called merchant descriptors, when you use a payment processor that supports this feature. After your processor configures the merchant descriptors for your account, you can choose which merchant descriptor to use every time you request a transaction. You must also contact CyberSource and your processor to specify default merchant descriptors for your account. See "Merchant Descriptors," page 140.

When do my capture and credit transactions appear on my CyberSource reports?

Capture and credit transactions usually appear on your reports two calendar days after you request them. However, it might take longer for funds to be transferred.

When are funds transferred between my customer's bank account and my company's bank account?

Funds are usually transferred within two to three days after you request a capture or credit.

Ingenico ePayments Credit Card Reversals

	Ingenico ePayments was previously called *Global Collect*.
Note	

Credit card reversals and requests for information, which are also called retrieval requests, are business transactions initiated by your customers through their banks. You can learn more about credit card disputes at Visa USA's web site:

http://usa.visa.com/merchants/operations/chargebacks_dispute_resolution/

The information in this section is generally applicable to all card types and all operating regions although certain details can vary.

Requests for Information

Credit card reversals and requests for information involve communication:

■ Between your customer and the acquiring bank

■ Between you and Ingenico ePayments

■ Between Ingenico ePayments and the acquiring bank

The process is:

1 The acquiring bank notifies Ingenico ePayments of your customer's request for information.

2 Ingenico ePayments searches for refunds already processed for the transaction identified by your customer.

3 Ingenico ePayments responds to the acquiring bank stating "already refunded." Ingenico ePayments does not take any further action because the information request has been satisfied. Requests for information are not documented within any report.

4   If Ingenico ePayments's research determines that a refund for the inquiry has not been initiated, Ingenico ePayments forwards the retrieval request to you. All requests received before midnight PT (Pacific Time) are forwarded to you by 0800 PT by email with a request for additional information. See "Request for Information Example," page 405.

5   A request for information is an impending chargeback. If Ingenico ePayments does not receive your answer by midnight PT before the fifth day, your customer's bank initiates a chargeback.

When you receive a request for information, you must respond promptly and with as much detail as possible:

1   Respond to your customer's request for information:

- Address your email to dispute.management@ingenico.com.
- There is no standard format to follow. However, you should provide as much information as you have. You should provide scanned copies of delivery receipts or official banking information with bank letterheads, bank logos, or other official bank insignia.

2   Ingenico ePayments forwards your response by email to the acquiring bank which then communicates with your customer's issuing bank.

3   If the information in the response is sufficient in the judgment of the issuing bank or customer in accordance with Mastercard/Visa/American Express rules, the chargeback is not executed. The dispute is dropped without further notification to the acquirer, Ingenico ePayments, or you.

Chargebacks

If one of the following situations occurs, then the issuing bank sends a chargeback (refund) to the customer's card and debits your account.:

- You do not send your response in a timely manner
- The information does not satisfy the reasons defined by the card type
- Your customer submits a valid claim for refund

If the information you provided in response to the request for information is not satisfactory or if your customer decides to charge the item back for any reason as defined by the specific card types, the issuing bank executes a chargeback. This adverse movement of funds is unavoidable, but can be reversed in some cases. See "Representments," page 402.

If Ingenico ePayments receives a chargeback by 0800 PT, the amount of the chargeback is deducted from your account the next business day and is reflected in:

- The Transaction Search in the Business Center

- The Payment Events Report for that processing day

The chargeback entry includes the reason code for the chargeback. The card types do not circulate lists of reason codes to merchants. However, notable merchant banks freely provide detailed explanations of chargeback reason codes on their web sites. This document provides:

- "Chargeback Reason Codes for Visa," page 403

- " Chargeback Reason Codes for Mastercard," page 404

Additionally, you can search the Internet for these phrases:

- Mastercard chargeback reason code

- Visa chargeback reason code

Whenever you receive a chargeback, your account is debited by the full or partial transaction amount associated with the chargeback. Chargebacks are deducted from the funding you would normally receive.

Representments

When you or Ingenico ePayments disputes the legitimacy of a chargeback, a *representment* case is initiated:

1   Ingenico ePayments automatically initiates a representment case if your customer initiates a chargeback for a transaction that has already been refunded by you.

As in all representment cases, there is no assurance that the issuing bank will reverse the chargeback even in the face of the evidence. However, the chances of success are excellent. Submitting a representment case does not automatically result in the debiting of your customer's account and the crediting of yours.

2   If you want to challenge a chargeback, in other words represent it, then you must do so very quickly. To optimize your chances for success, you must document your facts and submit them to Ingenico ePayments in five or fewer days after receiving notification of the chargeback.

For a description of the best practices for avoiding chargebacks and challenging specious chargebacks, see the Visa web site:

http://usa.visa.com/merchants/operations/chargebacks_dispute_resolution/

Additionally, you can search the Internet for these phrases:

- fight chargebacks
- representment

3 If your representment case is approved by your customer's issuing bank, the bank notifies you by refunding your account for amount of the chargeback. Although it is inconvenient, the payment card companies and issuing banks do not provide any other method of notification.

The notification appears as a chargeback withdrawal that is noted in the Payment Events Report. This event generally takes place 11 to 15 business days after you submit the representment case information to Ingenico ePayments. A chargeback withdrawal credits the financial status and the subsequent funding event.

Chargeback Reason Codes for Visa

Table 82   Chargeback Reason Codes for Visa

Reason Code	Description
30	Services Not Provided or Merchandise Not Received
31	Error in Addition
41	Cancelled Recurring Transaction
50	Credit Posted as Purchase
53	Not as Described
56	Defective Merchandise
60	Requested Copy Illegible
61	Fraudulent Mail/Phone Order Transaction
71	Authorization Request Declined / Authorization Declined
72	No Authorization / Transaction Exceeds Floor Limit
74	Late Presentment
75	Cardholder Does Not Recognize the Transaction
79	Requested Transaction Information Not Received
82	Duplicate Processing
83	Nonpossession of Card
85	Credit Not Processed
86	Paid by Other Means
90	Nonreceipt of Merchandise

Chargeback Reason Codes for Mastercard

Table 83   Chargeback Reason Codes for Mastercard

Reason Code	Description
01	Requested Transaction Data Not Received
02	Requested Item Illegible
08	Requested / Required Authorization Not Obtained
12	Account Number Not on File
31	Transaction Amount Differs
34	Duplicate Processing
35	Card Not Valid or Expired
37	Fraudulent Mail/Phone Order Transaction
41	Cancelled Recurring Transaction
42	Late Presentment
47	Exceeds Floor Limit, Not Authorized, and Fraudulent Transactions
50	Credit Posted as a Debit
53	Cardholder Dispute Defective / Not as Described
54	Cardholder Dispute-Not Elsewhere (U.S. only)
55	Nonreceipt of Merchandise
59	Services Not Rendered
60	Credit Not Processed
63	Cardholder Does Not Recognize - Potential Fraud

Request for Information Example

This example illustrates an email you might receive from Ingenico ePayments requesting information. In this example, the Xs represent values for the request.

Dear Sir/Madam,

With regards to the transactions below, we have been requested by the cardholders/cardholders' banks to provide photocopies of the transaction receipts.

Please reply within 5 days from the date of this e-mail with:

- legible copies of the transaction receipts;

- a manually imprinted & signed voucher in the case of a hand keyed transaction;

- signed delivery information;

- any other relevant documentation to support these charges;

- or any information regarding a possible refund;

- together with a copy of this e-mail.

```
Ingenico ePayments Call-ID     : XXXXX

Bank Case ID                   : XXXXXXXXX

Credit Card Number             : ***********XXXX

External Order Number          : XXXXXXXXXXX

Merchant Reference             :

Merchant Number                : XXXXXXXXXXX

Contract-ID                    : XXXX


Transaction history

Transaction                   Curr        Amount  Date

-------------------------------------------------------------

Original order amount         USD          XX.XX  DD-MM-YYYY

-------------------------------------------------------------

Total                         USD          XX.XX

Amount currently in question  USD          XX.XX
```

Visa and Mastercard International Rules and Regulations specify that Ingenico ePayments's bank must provide a copy of a sales voucher when requested by a cardholder or bank. Under these regulations, failure to provide a fully legible transaction receipt will result in the item being returned unpaid to you. In the event that this transaction was hand keyed into your terminal, you must also supply us with a copy of the manual imprinted voucher you took, to prove the presence of the card.

Remember to keep all original vouchers for 12 months as per your merchant agreement.

Kind regards,

Dispute Management
Ingenico ePayments
P.O. Box 2001
2130 GE Hoofddorp
The Netherlands
Fax: +31 23 554 8663
Email: dispute.management@globalcollect.com

Network Transaction Identifiers

The network transaction identifier is returned in **ccAuthReply_ paymentNetworkTransactionID** in the authorization reply message.

CyberSource through VisaNet

For CyberSource through VisaNet, the following values are returned for each card type:

- American Express: American Express generates this value. It is included in all replies from the American Express Global Network (AEGN).
- Mastercard: This value is the qualification information for the Mastercard Interchange Compliance (MIC) program. It is used for all Mastercard responses coming from Banknet through Visa to certified acquirers. Format:

  Bits 1-4: Banknet date

  Bits 5-7: Mastercard product ID. See "Mastercard Product IDs," page 411.

  Bits 8-13: Banknet reference number generated by Mastercard for each transaction

  Bits 14-15: Spaces
- Visa and Other Card Types: The payment card company generates this value. It is unique for each original authorization and identifies a transaction throughout its life cycle.

GPN

For GPN, the following values are returned for each card type:

- American Express: The payment card company generates this value. CyberSource saves this value and sends it to the processor in all subsequent capture requests.
- Discover: The payment card company generates this value. CyberSource saves this value and sends it to the processor in all subsequent requests for full authorization reversals and captures.
- Mastercard: The payment card company generates this value. CyberSource saves it and sends it to the processor in all subsequent requests for full authorization reversals and captures. Format:

  Bits 1-9: Banknet reference number generated by Mastercard for each transaction

  Bits 10-13: Banknet date

  Bits 14-15: Spaces

- Visa: The payment card company generates this value. CyberSource saves it and sends it to the processor in all subsequent requests for full authorization reversals and captures.

- Other Card Types: Not used.

Product Codes

The following table lists the values you can use for the product code in the **item_#_productCode** request field.

Table 84   Product Codes

Product Code	Definition
adult_content	Adult content.
coupon	Coupon applied to the entire order.
default	Default value for the product code. CyberSource uses `default` when a request message does not include a value for the product code.
electronic_good	Electronic product other than software.
electronic_software	Software distributed electronically rather than on disks or other media.
gift_certificate	Gift certificate.
handling_only	Fee that you charge your customer to cover your administrative selling costs.
service	Service that you perform for your customer.
shipping_and_handling	The shipping portion is the charge for shipping the product to your customer. The handling portion is the fee you charge your customer to cover your administrative selling costs.
shipping_only	Charge for transporting tangible personal property from your location to your customer. You must maintain documentation that clearly establishes the location where the title to the property passed from you to your customer.
subscription	Subscription to a web site or other content.

Product IDs

The Visa or Mastercard product ID is returned in **ccAuthReply_cardCategory** in the authorization reply message for all processors except CyberSource through VisaNet.

For CyberSource through VisaNet:

■ The Visa product ID is returned in **ccAuthReply_cardCategory** in the authorization reply message.

■ The Mastercard product ID is returned in **ccAuthReply_paymentNetwork TransactionID** in the authorization reply message.

Visa Product IDs

Note You will probably not receive all the codes in the following table.

In the following table, the carat character (^) indicates a space.

Table 85   Visa Product IDs

Value	Description	Value	Description
A^	Visa Traditional	L^	Electron
AX	American Express	M^	Mastercard/Eurocard and Diners
B^	Visa Traditional Rewards	N^	Visa Platinum
C^	Visa Signature	N1	Visa Rewards
D^	Visa Signature Preferred	N2	Visa Select
DI	Discover	P^	Visa Gold
DN	Diners Club International	Q^	Private Label
E^	Reserved	Q1	Private Label Prepaid
F^	Visa Classic	Q2	Private Label Basic
G^	Visa Business	Q3	Private Label Standard
G1	Visa Signature Business	Q4	Private Label Enhanced

Table 85   Visa Product IDs (Continued)

Value	Description	Value	Description
G2	Visa Business Check Card	Q5	Private Label Specialized
G3	Visa Business Enhanced	Q6	Private Label Premium
G4	Visa Infinite Business	R^	Proprietary
H^	Visa Check Card	S^	Visa Purchasing
I^	Visa Infinite	S1	Visa Purchasing with Fleet
I1	Visa Infinite Privilege	S2	Visa GSA Purchasing
I2	Visa Ultra High Net Worth	S3	Visa GSA Purchasing with Fleet
J^	Reserved	S4	Government Services Loan
J1	Visa General Prepaid	S5	Commercial Transport EBT
J2	Visa Prepaid Gift	S6	Business Loan
J3	Visa Prepaid Healthcare	T^	Reserved/Interlink
J4	Visa Prepaid Commercial	U^	Visa TravelMoney
JC	JCB	V^	V Pay
K^	Visa Corporate T&E	W^ – Z^	Reserved
K1	Visa GSA Corporate T&E	0^ – 9^	Reserved

Mastercard Product IDs

> **Note**
>
> Mastercard can introduce new values for this field without advance notice. See the Mastercard technical documentation for additional information. CyberSource through VisaNet does not edit or validate field content.

Table 86   Mastercard Product IDs

Value	Description	Value	Description
CBL	Carte Blanche	MNF	Mastercard Public Sector Commercial Card
DAG	Gold Debit Mastercard Salary	MOC	Standard Maestro Social
DAP	Platinum Debit Mastercard Salary	MPA	Prepaid Mastercard Payroll Card
DAS	Standard Debit Mastercard Salary	MPB	Mastercard Preferred BusinessCard
DCC	Diners Club	MPC	Mastercard Professional Card
DOS	Standard Debit Mastercard Social	MPF	Prepaid Mastercard Gift Card
JCB	Japanese Credit Bureau	MPG	Prepaid Mastercard Consumer Reloadable Card
MAB	World Elite Mastercard for Business	MPJ	Prepaid Debit Mastercard Card Gold

Table 86   Mastercard Product IDs (Continued)

Value	Description	Value	Description
MAC	Mastercard Corporate World Elite	MPK	Prepaid Mastercard Government Commercial Card
MAP	Mastercard Commercial Payments Account product	MPL	Platinum Mastercard Card
MAQ	Mastercard Prepaid Commercial Payments Account	MPM	Prepaid Mastercard Consumer Promotion Card
MAV	Mastercard Activation Verification	MPN	Prepaid Mastercard Insurance Card
MBB	Mastercard Prepaid Consumer	MPO	Prepaid Mastercard Other Card
MBC	Mastercard Prepaid Voucher	MPR	Prepaid Mastercard Travel Card
MBD	Deferred Debit Mastercard BusinessCard Card	MPT	Prepaid Mastercard Teen Card
MBE	Mastercard Electronic Business Card	MPV	Prepaid Mastercard Government Benefit Card
MBP	Mastercard Corporate Prepaid	MPW	Prepaid Mastercard Corporate Card
MBT	Mastercard Corporate Prepaid Travel	MPX	Prepaid Mastercard Flex Benefit Card
MCB	Mastercard BusinessCard Card/ Mastercard Corporate Card	MPY	Prepaid Mastercard Employee Incentive Card
MCC	Mastercard Card	MPZ	Prepaid Mastercard Emergency Assistance Card
MCE	Mastercard Electronic Card	MRB	Prepaid Mastercard Electronic BusinessCard
MCF	Mastercard Electronic Fleet Card	MRC	Prepaid Mastercard Electronic Card
MCG	Gold Mastercard Card	MRG	Prepaid Mastercard Card Outside U.S.
MCM	Mastercard Corporate Meeting Card	MRH	Mastercard Platinum Prepaid Travel Card
MCO	Mastercard Corporate	MRJ	Prepaid Mastercard Gold Card
MCP	Mastercard Corporate Purchasing Card	MRK	Prepaid Mastercard Electronic Commercial
MCS	Mastercard Standard Card	MRL	Prepaid Mastercard Electronic Commercial
MCW	World Mastercard Card	MRS	Prepaid Mastercard ISIC Student Card
MCX	Mastercard Card (international use)	MRW	Prepaid Mastercard BusinessCard Credit Outside U.S.
MDB	Debit Mastercard BusinessCard Card	MSI	Maestro point-of-sale debit program
MDG	Debit Gold Mastercard	MTP	Mastercard Platinum Prepaid Travel Card

Table 86   Mastercard Product IDs (Continued)

Value	Description	Value	Description
MDL	Business Debit Other Embossed	MUS	Prepaid Mastercard Unembossed U.S.
MDM	Middle Market Fleet Card	MWB	World Mastercard for Business
MDN	Middle Market Purchasing Card	MWE	Mastercard World Elite
MDO	Debit Mastercard Other	MWO	Mastercard Corporate World
MDP	Debit Mastercard Platinum	PRO	Proprietary Card
MDQ	Middle Market Corporate Card	PVL	Private label card
MDS	Debit Mastercard	SAG	Gold Mastercard Salary-Immediate Debit
MDT	Mastercard Business Debit	SAL	Standard Maestro Salary
MDW	Mastercard Black Debit/World Elite Debit Mastercard	SAP	Platinum Mastercard Salary-Immediate Debit
MEB	Mastercard Executive BusinessCard Card	SAS	Standard Mastercard Salary-Immediate Debit
MEC	Mastercard Electronic Commercial	SOS	Standard Mastercard Social-Immediate Debit
MEF	Mastercard Electronic Payment Account	SUR	Prepaid Mastercard Unembossed Outside U.S.
MEO	Mastercard Corporate Executive Card	TBE	Business-Immediate Debit
MET	Titanium Debit Mastercard	TCB	Mastercard Business Card-Immediate Debit
MGF	Mastercard Government Commercial Card	TCF	Mastercard Fleet Card-Immediate Debit
MHA	Mastercard Healthcare Prepaid Non-tax	TCO	Mastercard Corporate-Immediate Debit
MHB	Mastercard HSA Substantiated	TCP	Mastercard Purchasing Card-Immediate Debit
MHC	Mastercard Healthcare Credit Non-substantiated	TDN	Middle Market Mastercard Purchasing Card-Immediate Debit
MHH	Mastercard HSA Non-substantiated	TEB	Mastercard Executive BusinessCard Card-Immediate Debit
MIA	Mastercard Unembossed Prepaid Student Card	TEC	Mastercard Electronic Commercial-Immediate Debit
MIK	Mastercard Electronic Consumer Prepaid Non U.S. Student Card	TEO	Mastercard Corporate Executive Card-Immediate Debit
MIL	Mastercard Unembossed Prepaid Non U.S. Student Card	TLA	Mastercard Central Travel Solutions Air-Immediate Debit
MIP	Mastercard Debit Prepaid Student Card	TNF	Mastercard Public Sector Commercial Card-Immediate Debit

Table 86   Mastercard Product IDs (Continued)

Value	Description	Value	Description
MLA	Mastercard Central Travel Solutions Air	TPB	Mastercard Preferred Business Card-Immediate Debit
MLC	Mastercard Micro-Business Card	TPC	Mastercard Professional Card-Immediate Debit
MLD	Mastercard Distribution Card	WDR	World Debit Mastercard Rewards
MLL	Mastercard Central Travel Solutions Land	WMR	World Mastercard Rewards

Reason Codes

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

![Important]	Because CyberSource can add reply fields and reason codes at any time:

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

- You must parse the reply data according to the names of the fields instead of the field order in the reply. For more information about parsing reply fields, see the documentation for your client.

- Your error handler should be able to process new reason codes without problems.

- Your error handler should use the **decision** field to determine the result if it receives a reason code that it does not recognize.

Table 87   Reason Codes

Reason Code	Description
100	Successful transaction. *AIBMS:* If **ccAuthReply_processorResponse** is 08, you can accept the transaction if the customer provides you with identification.
101	The request is missing one or more required fields. Possible action: see the reply fields **missingField_0...N** for which fields are missing. Resend the request with the complete information. For information about missing or invalid fields, see *Getting Started with CyberSource Advanced for the Simple Order API*.
102	One or more fields in the request contains invalid data. Possible action: see the reply fields **invalidField_0...N** for which fields are invalid. Resend the request with the correct information. For information about missing or invalid fields, see *Getting Started with CyberSource Advanced for the Simple Order API*.
104	The merchant reference code for this authorization request matches the merchant reference code of another authorization request that you sent within the past 15 minutes. Possible action: Resend the request with a unique merchant reference code.

Table 87   Reason Codes (Continued)

Reason Code	Description
110	Only a partial amount was approved.
	Possible action: see "Partial Authorizations," page 89.
150	General system failure.
	See the documentation for your CyberSource client for information about handling retries in the case of system errors.
151	The request was received but there was a server timeout. This error does not include timeouts between the client and the server.
	Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center. See the documentation for your CyberSource client for information about handling retries in the case of system errors.
152	The request was received, but a service did not finish running in time.
	Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center. See the documentation for your CyberSource client for information about handling retries in the case of system errors.
200	The authorization request was approved by the issuing bank but declined by CyberSource because it did not pass the Address Verification System (AVS) check.
	Possible action: You can capture the authorization, but consider reviewing the order for the possibility of fraud.
201	The issuing bank has questions about the request. You do not receive an authorization code programmatically, but you might receive one verbally by calling the processor.
	Possible action: Call your processor to possibly receive a verbal authorization. For contact phone numbers, refer to your merchant bank information.
202	Expired card. You might also receive this value if the expiration date you provided does not match the date the issuing bank has on file.
	Possible action: Request a different card or other form of payment.
203	General decline of the card. No other information was provided by the issuing bank.
	Possible action: Request a different card or other form of payment.
204	Insufficient funds in the account.
	Possible action: Request a different card or other form of payment.
205	Stolen or lost card.
	Possible action: Review this transaction manually to ensure that you submitted the correct information.
207	Issuing bank unavailable.
	Possible action: Wait a few minutes and resend the request.

Table 87   Reason Codes (Continued)

Reason Code	Description
208	Inactive card or card not authorized for card-not-present transactions.
	Possible action: Request a different card or other form of payment.
209	CVN did not match.
	Possible action: Request a different card or other form of payment.
210	The card has reached the credit limit.
	Possible action: Request a different card or other form of payment.
211	Invalid CVN.
	Possible action: Request a different card or other form of payment.
221	The customer matched an entry on the processor's negative file.
	Possible action: Review the order and contact the payment processor.
230	The authorization request was approved by the issuing bank but declined by CyberSource because it did not pass the CVN check.
	Possible action: You can capture the authorization, but consider reviewing the order for the possibility of fraud.
231	Invalid account number.
	Possible action: Request a different card or other form of payment.
232	The card type is not accepted by the payment processor.
	Possible action: Contact your merchant bank to confirm that your account is set up to receive the card in question.
233	General decline by the processor.
	Possible action: Request a different card or other form of payment.
234	There is a problem with the information in your CyberSource account.
	Possible action: Do not resend the request. Contact CyberSource Customer Support to correct the information in your account.
235	The requested capture amount exceeds the originally authorized amount.
	Possible action: Issue a new authorization and capture request for the new amount.
236	Processor failure.
	Possible action: Wait a few minutes and resend the request.
237	The authorization has already been reversed.
	Possible action: No action required.
238	The authorization has already been captured.
	Possible action: No action required.
239	The requested transaction amount must match the previous transaction amount.
	Possible action: Correct the amount and resend the request.

Table 87   Reason Codes (Continued)

Reason Code	Description
240	The card type sent is invalid or does not correlate with the credit card number. Possible action: Confirm that the card type correlates with the credit card number specified in the request, then resend the request.
241	The request ID is invalid. Possible action: Request a new authorization, and if successful, proceed with the capture.
242	You requested a capture, but there is no corresponding, unused authorization record. Occurs if there was not a previously successful authorization request or if the previously successful authorization has already been used by another capture request. Possible action: Request a new authorization, and if successful, proceed with the capture.
243	The transaction has already been settled or reversed. Possible action: No action required.
246	One of the following: ■ The capture or credit is not voidable because the capture or credit information has already been submitted to your processor. *- or -* ■ You requested a void for a type of transaction that cannot be voided. Possible action: No action required.
247	You requested a credit for a capture that was previously voided. Possible action: No action required.
250	The request was received, but there was a timeout at the payment processor. Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center.
254	Stand-alone credits are not allowed. Possible action: Submit a follow-on credit by including a request ID in the credit request. A follow-on credit must be requested within 60 days of the authorization. To process stand-alone credits, contact your CyberSource account representative to find out if your processor supports stand-alone credits.

Verified by Visa Response Codes

The Verified by Visa response code is returned in **ccAuthReply_cavvResponseCode** in the reply message for an authorization request. See "Verified by Visa," page 184, for a description of Verified by Visa.

Table 88   Verified by Visa Response Codes

Response Code	Description
0	CAVV not validated because erroneous data was submitted.
1	CAVV failed validation and authentication.
2	CAVV passed validation and authentication.
3	CAVV passed the validation attempt.
4	CAVV failed the validation attempt.
6	CAVV not validated because the issuer does not participate.
7	CAVV failed the validation attempt and the issuer is available.
8	CAVV passed the validation attempt and the issuer is available.
9	CAVV failed the validation attempt and the issuer is not available.
A	CAVV passed the validation attempt and the issuer is not available.
B	CAVV passed the validation with information only; no liability shift.
C	CAVV attempted but not validated; issuer did not return CAVV code.
D	CAVV not validated or authenticated; issuer did not return CAVV code.
I	Invalid security data.
U	Issuer does not participate or 3-D secure data was not used.
99	An unknown value was returned from the processor.

Values for the Wallet Type Field

The wallet type is sent in the **wallet_type** field in authorization requests and credit requests. Possible value are:

- `101`: Masterpass remote payment. The cardholder created the wallet by manually interacting with a customer-controlled device such as a computer, tablet, or phone. This value is supported only for Masterpass transactions on Chase Paymentech Solutions and CyberSource through VisaNet.

- `102`: Masterpass remote near field communication (NFC) payment. The cardholder created the wallet by tapping a PayPass card or customer-controlled device at a contactless card reader. This value is supported only for card-present Masterpass transactions on CyberSource through VisaNet.

- `103`: Masterpass Apple Pay payment. The payment was made with a combination of Masterpass and Apple Pay. This value is supported only for Masterpass Apple Pay transactions on CyberSource through VisaNet. See *Apple Pay Using the Simple Order API*.

- `216`: Masterpass Android Pay payment. The payment was made with a combination of Masterpass and Android Pay. This value is supported only for Masterpass Android Pay transactions on CyberSource through VisaNet. See *Android Pay Using the Simple Order API*.

- `217`: Masterpass Samsung Pay payment. The payment was made with a combination of Masterpass and Samsung Pay. This value is supported only for Masterpass Samsung Pay transactions on CyberSource through VisaNet. See *Samsung Pay Using the Simple Order API*.

- `SDW`: Staged digital wallet. An issuer or operator created the wallet. This value is supported only for Masterpass transactions on Chase Paymentech Solutions.

- `VCIND`: Visa Checkout payment. This value is supported only on CyberSource through VisaNet, FDC Compass, FDC Nashville Global, FDI Australia, and TSYS Acquiring Solutions. See *Getting Started with Visa Checkout.*

For additional information about the **wallet_type** field, see Appendix A, "API Fields," on page 232.

Index

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

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

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

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

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