Credit Card Services

Using the Simple Order API

September 2016
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<td>September 2016</td>
<td>All processors that support multiple captures: created new section: &quot;Multiple Partial Captures,&quot; page 56.</td>
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<td>FDC Nashville Global: updated the maximum length for the invoiceHeader_submerchantName field. See Table 65, &quot;Request Fields,&quot; on page 222.</td>
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<td>August 2016</td>
<td>All processors that support Apple Pay: removed the Apple Pay information from this guide. See Apple Pay Using the Simple Order API.</td>
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<td>All processors that support Visa Checkout: <code>encryptedPayment_data</code> and <code>encryptedPayment_wrappedKey</code> are no longer supported for Visa Checkout authorizations. See:</td>
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<td>- &quot;Visa Checkout Examples,&quot; page 330 (NVP)</td>
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<td>- &quot;Visa Checkout Examples,&quot; page 358 (XML)</td>
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<td>AIBMS: added support for zero amount authorizations. See &quot;Zero Amount Authorizations,&quot; page 213.</td>
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<tr>
<td>July 2016</td>
<td>Removed all mentions of Bill Me Later because this product is no longer supported.</td>
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<tr>
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<td>American Express Direct: updated the maximum length for the <code>aggregatorID</code> field. See Table 65, &quot;Request Fields,&quot; on page 222. Adam</td>
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<td>GPN:</td>
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<td>- For interchange optimization, the fresh authorization uses the same authorization indicator as the original authorization. See &quot;Interchange Optimization,&quot; page 55 and &quot;Final Authorization Indicator,&quot; page 116.</td>
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<td>- For split shipments, the system-generated authorization uses the same authorization indicator as the original authorization. See &quot;Split Shipments,&quot; page 203 and &quot;Final Authorization Indicator,&quot; page 116.</td>
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<td>OmniPay Direct: added support for verbal authorizations. See &quot;Verbal Authorizations,&quot; page 82.</td>
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<td>Streamline: added support for enhanced response codes. See the entry for Streamline in Table 11, &quot;Authorization Information for Specific Processors,&quot; on page 35.</td>
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<td>June 2016</td>
<td>All processors that support the final authorization indicator: added information about additional regions. See &quot;Final Authorization Indicator,&quot; page 116.</td>
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<td>CyberSource through VisaNet: added support for Apple Pay for Westpac acquirer. See &quot;Apple Pay,&quot; page 106. In August 2016, the Apple Pay information was removed from this guide. See Apple Pay Using the Simple Order API.</td>
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<td>Global Collect: changed the processor name to Ingenico ePayments.</td>
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<td>HBoS: added support for zero amount authorizations. See &quot;Zero Amount Authorizations,&quot; page 213.</td>
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<td>LloydsTSB Cardnet:</td>
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<td>- Added support for multiple captures. See the entry for LloydsTSB Cardnet in Table 15, &quot;Capture Information for Specific Processors,&quot; on page 49.</td>
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<td>- Added support for zero amount authorizations. See &quot;Zero Amount Authorizations,&quot; page 213.</td>
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<td>OmniPay Direct:</td>
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<td>- Added support for acquirer First Data Merchant Solutions (Europe). See Table 8, &quot;Payment Processors and Card Types,&quot; on page 26.</td>
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<td>- Added support for forced captures. See &quot;Forced Captures,&quot; page 120.</td>
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<td>Streamline: added support for Apple Pay. See &quot;Apple Pay,&quot; page 106. In August 2016, the Apple Pay information was removed from this guide. See Apple Pay Using the Simple Order API.</td>
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<td>All processors that support Android Pay or Apple Pay: added four token reply fields: token_expirationMonth, token_expirationYear, token_prefix, token_suffix. See Table 66, &quot;Reply Fields,&quot; on page 293. In August 2016, the Apple Pay information was removed from this guide. See Apple Pay Using the Simple Order API and Android Pay Using the Simple Order API.</td>
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<tr>
<td></td>
<td>CyberSource through VisaNet:</td>
</tr>
<tr>
<td></td>
<td>- Added support for Apple Pay. See &quot;Apple Pay,&quot; page 106. In August 2016, the Apple Pay information was removed from this guide. See Apple Pay Using the Simple Order API.</td>
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<td></td>
<td>- Added request and reply field for discretionary data for installment payments in Latin America. See issuer_additionalData in Table 65, &quot;Request Fields,&quot; on page 222 and Table 66, &quot;Reply Fields,&quot; on page 293.</td>
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<td>April 2016</td>
<td>All processors that provide AVS response information: updated the description for AVS code F. See Appendix E, &quot;AVS Codes,&quot; on page 364.</td>
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<td>FDMS South: will quit accepting authorization requests in 2017. See the entry for FDMS South in Table 8, &quot;Payment Processors and Card Types,&quot; on page 26.</td>
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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.
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**

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
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| **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

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<th>Card or Payment Method</th>
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<td>Credit cards</td>
<td>CyberSource can accept payments made with numerous types of credit cards, including Visa®, MasterCard®, American Express®, Discover®, Diners Club®, and JCB®.</td>
</tr>
<tr>
<td>Private label cards</td>
<td>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.</td>
</tr>
<tr>
<td>Debit cards and prepaid cards</td>
<td>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 86.</td>
</tr>
<tr>
<td>Quasi-cash</td>
<td>A quasi-cash transaction is a cash-like transaction for the sale of items that are directly convertible to cash. See “Quasi-Cash,” page 190.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Card Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>China UnionPay Alliance</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>■ 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).</td>
</tr>
<tr>
<td></td>
<td>■ If you have been accepting China UnionPay but not Discover, you are now able to accept Discover cards.</td>
</tr>
<tr>
<td>Diners Club Acquisition</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>■ If you have been accepting Discover but not Diners Club, you are now able to accept Diners Club cards.</td>
</tr>
<tr>
<td></td>
<td>■ If you have been accepting Diners Club but not Discover, you are now able to accept Discover cards.</td>
</tr>
<tr>
<td>JCB (US Domestic) Alliance</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>■ If you have been accepting Discover but not JCB, you are now able to accept JCB cards.</td>
</tr>
<tr>
<td></td>
<td>■ If you have been accepting JCB but not Discover, you are now able to accept Discover cards.</td>
</tr>
</tbody>
</table>

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 69.

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>
<thead>
<tr>
<th>Area of Compliance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchant account descriptor requirements</td>
<td>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 133.</td>
</tr>
</tbody>
</table>
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.

Table 4  Compliance for International Transactions (Continued)

<table>
<thead>
<tr>
<th>Area of Compliance</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 383 for more information about chargebacks.  
**Note** Ingenico ePayments was previously called *Global Collect*. |
Banks and Associations

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.

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 25.

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

<table>
<thead>
<tr>
<th>Fee</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rates</td>
<td>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.</td>
</tr>
<tr>
<td>Interchange fees</td>
<td>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.</td>
</tr>
<tr>
<td>Chargebacks</td>
<td>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.</td>
</tr>
</tbody>
</table>

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:

- Capture: see "Capturing an Authorization," page 46.
- Credit: see "Crediting a Payment," page 60.
- Void: see "Voiding a Capture or Credit," page 66. 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 59.

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>
<thead>
<tr>
<th>Service</th>
<th>Request ID Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization reversal</td>
<td>ccAuthReversalService_authRequestID</td>
</tr>
<tr>
<td>Capture</td>
<td>ccCaptureService_authRequestID</td>
</tr>
<tr>
<td>Credit</td>
<td>ccCreditService_captureRequestID</td>
</tr>
<tr>
<td>Void</td>
<td>voidService_voidRequestID</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Service</th>
<th>Reconciliation ID Field</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 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 56. |
| Credit      | ccCreditReply_reconciliationID | The reconciliation ID is returned for all credit requests for all processors. |

On CyberSource through VisaNet, the reconciliation ID is mapped to the purchase identifier field which is sent to your acquirer.
Chapter 1  Introduction to the Credit Card Services

Payment Processors

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.

Only the card types explicitly listed here are supported.


### Table 8  Payment Processors and Card Types

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Supported Card Types &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Visa, MasterCard, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Asia, Middle East, and Africa Gateway</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB</td>
</tr>
<tr>
<td>Atos</td>
<td>Visa, MasterCard, Diners Club, JCB, Carte Bleue, Maestro (UK Domestic)</td>
</tr>
<tr>
<td>Barclays</td>
<td>Visa, MasterCard, JCB, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td>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).</td>
</tr>
<tr>
<td>CCS (CAFIS)</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, NICOS house card</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Carte Blanche, Maestro (International)</td>
</tr>
<tr>
<td>Cielo</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Maestro (International), Elo, Aura, Visa Electron</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Citibank India</td>
<td>For details about the Citibank India processor, contact your CyberSource sales representative.</td>
</tr>
</tbody>
</table>
Chapter 1  Introduction to the Credit Card Services

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 373 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
Chapter 1  Introduction to the Credit Card Services

Table 8  Payment Processors and Card Types (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Supported Card Types &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, Carte Blanche, JCB</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, Carte Blanche, JCB</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> 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.</td>
</tr>
<tr>
<td></td>
<td>If you settle transactions in CAD, you must do the following:</td>
</tr>
<tr>
<td></td>
<td>- 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.</td>
</tr>
<tr>
<td></td>
<td>- Contact First Data to have your First Data account updated.</td>
</tr>
<tr>
<td></td>
<td>If you settle transactions in USD, CyberSource recommends that you change your processor to FDC Nashville Global, FDMS Nashville, or FDC Compass.</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>GPN is the CyberSource name for Global Payments, Inc.'s East processing platform.</td>
<td></td>
</tr>
<tr>
<td>HBoS</td>
<td>Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>HSBC</td>
<td>Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td></td>
</tr>
<tr>
<td>Ingenico ePayments</td>
<td>Visa, MasterCard, American Express, JCB, Maestro (UK Domestic), Delta, Visa Electron, Dankort, Carte Bleue, Carte Si, Eurocard</td>
</tr>
<tr>
<td>Ingenico ePayments was previously called <em>Global Collect</em>.</td>
<td></td>
</tr>
<tr>
<td>JCN Gateway</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, NICOS house card, ORICO house card</td>
</tr>
<tr>
<td>Litle</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Visa, MasterCard, Maestro (UK Domestic)</td>
</tr>
<tr>
<td>Lynk</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, Carte Blanche, JCB</td>
</tr>
<tr>
<td>Moneris</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
</tbody>
</table>
## Table 8 Payment Processors and Card Types (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Supported Card Types &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>OmniPay Direct</td>
<td>Supported acquirers:</td>
</tr>
<tr>
<td></td>
<td>■ First Data Merchant Solutions (Europe): Visa, MasterCard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td></td>
<td>■ Global Payments International Acquiring: Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td></td>
<td>OmniPay-Ireland is the CyberSource name for HSBC International.</td>
</tr>
<tr>
<td>PayEase China Processing</td>
<td>Visa, MasterCard, American Express, JCB</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>RBS WorldPay Atlanta</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Streamline</td>
<td>Visa, MasterCard, JCB, Carte Bleue, Dankort, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td>For Maestro (International), SecureCode processing is required.</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Carte Blanche</td>
</tr>
<tr>
<td>UATP</td>
<td>UATP</td>
</tr>
</tbody>
</table>
Credit Card Processing

CHAPTER 2

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 69.

   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 86.

   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 86, and "Balance Responses," page 92.

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.

Auto Captures

Processors:
- Asia, Middle East, and Africa Gateway
- Cielo
- Comercio Latino

*Auto capture* means that an authorization always results in an immediate capture if the authorization is approved. Auto captures are requested two ways:

- Request an authorization and capture at the same time (bundled) and include authorization type `AUTOCAPTURE`.
- Request an authorization and capture at the same time (bundled) and ensure that your merchant accounts are configured to enable auto captures.

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

If your merchant account is configured to enable auto captures but you want to process a standard capture for a specific transaction, request an authorization and include authorization type `standardcapture`. You can do it with a bundled or standard authorization request. The authorization is processed immediately and, if it is successful, the capture is processed during the next settlement submission cycle.

On auto captures, settlement is performed on the processor side. CyberSource performs no settlement activity.

Auth reversal and void services are not supported for auto capture transactions.
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 9 for the required fields:

### Table 9  Required Fields for Authorizations with Visa Checkout

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_run</td>
<td>Set to true.</td>
</tr>
<tr>
<td>merchantID</td>
<td></td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td></td>
</tr>
<tr>
<td>paymentSolution</td>
<td>Set to visachekout.</td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_grandTotalAmount</td>
<td>Either purchaseTotals_grandTotalAmount or item__#_unitPrice must be included in the request.</td>
</tr>
<tr>
<td>vc_orderID</td>
<td></td>
</tr>
<tr>
<td>wallet_type</td>
<td>Required only on CyberSource through VisaNet.</td>
</tr>
</tbody>
</table>

See *Appendix A, "API Fields,"* on page 221 for:

- Detailed descriptions of these required request fields
- Optional request fields
- Reply fields
Otherwise, see Table 10 for the required fields:

### Table 10  Required Fields for Authorizations without Visa Checkout

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_city</td>
<td></td>
</tr>
<tr>
<td>billTo_country</td>
<td></td>
</tr>
<tr>
<td>billTo_email</td>
<td></td>
</tr>
<tr>
<td>billTo_firstName</td>
<td></td>
</tr>
<tr>
<td>billTo_lastName</td>
<td></td>
</tr>
<tr>
<td>billTo_postalCode</td>
<td>Required only for transactions in the U.S. and Canada.</td>
</tr>
<tr>
<td>billTo_state</td>
<td>Required only for transactions in the U.S. and Canada.</td>
</tr>
<tr>
<td>billTo_street</td>
<td></td>
</tr>
<tr>
<td>card_accountNumber</td>
<td></td>
</tr>
<tr>
<td>card_cardType</td>
<td>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.</td>
</tr>
<tr>
<td>card_expirationMonth</td>
<td></td>
</tr>
<tr>
<td>card_expirationYear</td>
<td></td>
</tr>
<tr>
<td>ccAuthService_run</td>
<td>Set to true.</td>
</tr>
<tr>
<td>merchantID</td>
<td></td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_grandTotalAmount</td>
<td>Either purchaseTotals_grandTotalAmount or item_#_unitPrice must be included in the request.</td>
</tr>
<tr>
<td>1</td>
<td>This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See &quot;Relaxed Requirements for Address Data and Expiration Date,&quot; page 72.</td>
</tr>
</tbody>
</table>

**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 221 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 35.

**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 69.
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 97.

Authorization Information for Specific Processors

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

Table 11 Authorization Information for Specific Processors

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Authorization Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express Direct</td>
<td>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.</td>
</tr>
</tbody>
</table>
| 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 auto-captured. This means that an authorization always results in a capture if the authorization is approved. If you use any of these acquirers, you still must send CyberSource a capture request. Contact your CyberSource Customer Support representative to find out whether your acquirer uses delayed capture or auto capture. See "Auto Captures," page 32. |
| 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 53. |
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.

### Cielo

**Auto Capture and Standard Capture**

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 auto capture instead of standard capture. To override the default type of capture processing for a transaction, include the `ccAuthService_authType` field in your request.

For more information on auto captures, see "Auto Captures," page 32.

**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 the authorization and capture services together as an auto capture. See "Auto Captures," page 32.
- 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 174.
- 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)
Chapter 2  Credit Card Processing

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 the authorization and capture services together as an auto capture. See "Auto Captures," page 32.

- 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 174.

- 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 are required to submit the authorization request and the capture request in the same message. For other countries, you can submit the authorization and capture requests separately. 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.
Table 11  Authorization Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Authorization Information</th>
</tr>
</thead>
</table>
| 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 65, "Request Fields," on page 222. 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 86. |
| GPN                       | GPN limits the authorization, capture, and credit amounts to 10 digits.                                                                                     |
| Ingenico ePayments        | For Carte Bleue, the authorization and capture amount must be 0.99 EUR or more.                                                                             |
| Ingenico ePayments was    |                                                                                                                                                            |
| previously called         |                                                                                                                                                            |
| Global Collect            |                                                                                                                                                            |
| 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 99999999.99.                                               |
| 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 45. 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 12 Processors That Support Full Authorization Reversals

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>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 &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>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 &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>Barclays</td>
<td>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 &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>Processor</td>
<td>Card Types and Notes</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CCS (CAFIS)</td>
<td>Important ARAV is supported. See &quot;Multiple PartialCaptures and Authorization Reversal after Void,&quot; page 58. Card types supported for full authorization reversals: Visa, MasterCard, American Express, Diners Club, JCB.</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Important ARAV is supported. See &quot;Multiple PartialCaptures and Authorization Reversal after Void,&quot; page 58. 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.</td>
</tr>
<tr>
<td>Cielo</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, American Express.</td>
</tr>
<tr>
<td>Comercio Latino</td>
<td>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.</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Important ARAV is supported. See &quot;AuthorizationReversal after Void (ARAV),&quot; page 45. Card types supported for full authorization reversals: Visa, MasterCard, American Express, Diners Club, JCB, Discover.</td>
</tr>
<tr>
<td>Elavon</td>
<td>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.</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>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 &quot;Multiple PartialCaptures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>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 &quot;AuthorizationReversal after Void (ARAV),&quot; page 45.</td>
</tr>
</tbody>
</table>

FDC Germany Requirement: you are responsible for complying with the processor’s specific requirements for full authorization reversals. Contact the processor for more information.
### Table 12  Processors That Support Full Authorization Reversals (Continued)

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDC Nashville Global</td>
<td>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. <strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>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. <strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
</tbody>
</table>
| 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 45. |
### Table 12  Processors That Support Full Authorization Reversals (Continued)

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPN</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, Discover, Diners Club, and JCB.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>HBoS</td>
<td>Requirement: you are responsible for complying with the processor’s specific requirements for full authorization reversals. Contact the processor for more information.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>HSBC  HSBC is the CyberSource name for HSBC U.K.</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, Maestro (UK Domestic), Maestro (International).</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>JCN Gateway</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, American Express, Diners Club, JCB, NICOS house card, ORICO house card.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>Litle</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, Discover, Diners Club, and JCB.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Requirement: you are responsible for complying with the processor’s specific requirements for full authorization reversals. Contact the processor for more information.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Requirement: you are responsible for complying with the processor’s specific requirements for full authorization reversals. Contact the processor for more information.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>Moneris</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, American Express, and Discover.</td>
</tr>
</tbody>
</table>
Table 12  Processors That Support Full Authorization Reversals (Continued)

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>OmniPay Direct</td>
<td>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 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). <strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>RBS WorldPay Atlanta</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, American Express, and Discover.</td>
</tr>
<tr>
<td>Streamline</td>
<td>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. <strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Card types supported for full authorization reversals: Visa, MasterCard, American Express, Discover, Diners Club, and JCB. <strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
</tbody>
</table>
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.

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>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReversalService_authRequestId</td>
<td>Set to the request ID that was included in the authorization reply message.</td>
</tr>
<tr>
<td>ccAuthReversalService_run</td>
<td>Set to true.</td>
</tr>
<tr>
<td>merchantID</td>
<td></td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td></td>
</tr>
<tr>
<td>paymentSolution</td>
<td>Include this field only if you are using Visa Checkout.</td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_grandTotalAmount</td>
<td>Either purchaseTotals_grandTotalAmount or item_#_.unitPrice must be included in the request.</td>
</tr>
<tr>
<td>vc_orderID</td>
<td>Include this field only if you are using Visa Checkout.</td>
</tr>
</tbody>
</table>

See Appendix A, "API Fields," on page 221 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:
  - 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.
To reverse an authorization after a void:

**Step 1** Void a capture. See "Voiding a Capture or Credit," page 66.

**Step 2** Reverse the authorization associated with the capture. See "Reversing an Authorization," page 39.

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.

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 56. For information about multiple captures and ARAV, see "Multiple Partial Captures and Authorization Reversal after Void," page 58.

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.

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.

---

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>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>ccCaptureService_run</code></td>
<td>Set to <code>true</code>.</td>
</tr>
<tr>
<td><code>ccCaptureService_authRequestID</code></td>
<td>Set to the request ID that was included in the authorization reply message. Optional when <code>ccAuthService</code> and <code>ccCaptureService</code> are in the same request.</td>
</tr>
<tr>
<td><code>merchantID</code></td>
<td></td>
</tr>
<tr>
<td><code>merchantReferenceCode</code></td>
<td></td>
</tr>
<tr>
<td><code>orderRequestToken</code></td>
<td>Required only for Atos.</td>
</tr>
<tr>
<td><code>paymentSolution</code></td>
<td>Include this field only if you are using Visa Checkout.</td>
</tr>
<tr>
<td><code>purchaseTotals_currency</code></td>
<td></td>
</tr>
</tbody>
</table>
Step 3 If needed, modify the request to accommodate additional information for your processor. See Table 15, "Capture Information for Specific Processors," on page 49.

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

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 97.

Capture Information for Specific Processors

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

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Capture Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>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. Important ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
</tbody>
</table>
## Table 15  Capture Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Capture Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia, Middle East, and Africa Gateway</td>
<td>The Asia, Middle East, and Africa Gateway limits authorization and capture amounts to four bytes, which is 2147483647. Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56. Autocapture requirement: certain acquirers that are connected to the Asia, Middle East, and Africa Gateway require that an authorization be auto-captured. This means that an authorization always results in a capture if the authorization is approved. If you use any of these acquirers, you still must send CyberSource a capture request. Contact your CyberSource Customer Support representative to find out whether your acquirer uses delayed capture or auto capture.</td>
</tr>
<tr>
<td>Atos</td>
<td>Atos limits authorization, capture, and credit amounts to 12 digits; therefore, the maximum amount is 999999999999. <strong>Important</strong> 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 &quot;Authorization Refresh,&quot; page 53.</td>
</tr>
<tr>
<td>Barclays</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56. Special request fields for multiple partial captures are required. See &quot;Special Request Fields for Multiple Partial Captures,&quot; page 57. <strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>CCS (CAFIS)</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56. <strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
</tbody>
</table>
| Cielo                                  | Cielo supports standard captures and auto captures:  
  - 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 auto capture instead of standard capture. To override the default type of capture processing for a transaction, include the ccAuthService_authType field in your request.  
  - For an Aura Card transaction, you must include authorization type value AUTOCAPTURE. See "Auto Captures," page 32. |
Table 15  Capture Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Capture Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comercio Latino</td>
<td>Comercio Latino supports standard captures and auto captures.</td>
</tr>
<tr>
<td>CyberSource Latin American Processing</td>
<td>Autocapture 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 the authorization request and the capture request together in the same message. For other countries, you can submit the authorization and capture requests separately. Contact CyberSource Customer Support for each country’s requirements. For transactions in Brazil:</td>
</tr>
<tr>
<td></td>
<td>• You must request the follow-on capture within five days of the authorization request.</td>
</tr>
<tr>
<td></td>
<td>• The capture amount can be less than the authorization amount.</td>
</tr>
<tr>
<td></td>
<td>• You can request only one capture per authorization.</td>
</tr>
<tr>
<td></td>
<td>With CyberSource Latin American Processing, it takes 31 days for the funds to be deposited in your merchant bank account.</td>
</tr>
<tr>
<td></td>
<td>Note  <em>CyberSource Latin American Processing</em> is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, <em>CyberSource Latin American Processing</em> does not refer to the general topic of processing in Latin America.</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>CyberSource through VisaNet limits authorization and capture amounts to 12 digits; therefore, the maximum amount is 999999999999.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td></td>
<td>Special request fields for multiple partial captures are recommended. See &quot;Special Request Fields for Multiple Partial Captures,&quot; page 57.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>Important  ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>CyberSource always provides merchant descriptor information to the processor for you for all capture and credit transactions. See &quot;Merchant Descriptors,&quot; page 133.</td>
</tr>
<tr>
<td></td>
<td>Important  ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
</tbody>
</table>
### Table 15  Capture Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Capture Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDMS Nashville</td>
<td><strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>FDMS South</td>
<td><strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>GPN</td>
<td>GPN limits the authorization, capture, and credit amounts to 10 digits.</td>
</tr>
<tr>
<td></td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>HBoS</td>
<td><strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>HSBC</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td><strong>Important</strong> This feature has restrictions. Contact CyberSource Customer Support for details.</td>
</tr>
<tr>
<td>Ingenico ePayments</td>
<td>On Carte Bleue, the authorization and capture amount must be 0.99 EUR or more.</td>
</tr>
</tbody>
</table>
| Ingenico ePayments was previously called Global Collect. | 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 56.    |
| 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 56.    |
|                            | **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 58. |
| Lloyds-OmniPay             | **Important** ARAV is supported. See "Authorization Reversal after Void (ARAV)," page 45. |
| LloydsTSB Cardnet          | Multiple partial captures are supported. See "Multiple Partial Captures," page 56.    |
|                            | **Important** ARAV is supported. See "Multiple Partial Captures and Authorization Reversal after Void," page 58. |
| Moneris                    | Moneris limits authorization and capture amounts to nine digits; therefore, the maximum amount is 99999999.99. |
Chapter 2  Credit Card Processing

Table 15  Capture Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Capture Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>OmniPay Direct</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td></td>
<td>Special request fields for multiple partial captures are recommended. See &quot;Special Request Fields for Multiple PartialCaptures,&quot; page 57.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> This feature has restrictions. Contact CyberSource Customer Support for details.</td>
</tr>
<tr>
<td>Streamline</td>
<td><strong>Important</strong> ARAV is supported. See &quot;Authorization Reversal after Void (ARAV),&quot; page 45.</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Multiple partial captures are supported. See &quot;Multiple Partial Captures,&quot; page 56.</td>
</tr>
<tr>
<td></td>
<td>Special request fields for multiple partial captures are required. See &quot;Special Request Fields for Multiple Partial Captures,&quot; page 57.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> ARAV is supported. See &quot;Multiple Partial Captures and Authorization Reversal after Void,&quot; page 58.</td>
</tr>
</tbody>
</table>

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 16 Processors That Support Automatic Partial Authorization Reversals

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chase Paymentech Solutions¹</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDC Compass¹</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, MasterCard, Discover, Diners Club,</td>
</tr>
<tr>
<td></td>
<td>JCB (US Domestic)²</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, Discover, Diners Club,</td>
</tr>
<tr>
<td></td>
<td>JCB (US Domestic)²</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard, Discover, JCB (US Domestic)²</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td></td>
<td>On GPN, automatic partial authorization reversal is performed as part of interchange optimization, which is described in &quot;Interchange Optimization,&quot; page 55.</td>
</tr>
<tr>
<td>Litle</td>
<td>Visa¹, MasterCard, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Visa</td>
</tr>
<tr>
<td>OmniPay-Ireland is the</td>
<td></td>
</tr>
<tr>
<td>CyberSource name for HSBC</td>
<td></td>
</tr>
<tr>
<td>International.</td>
<td></td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa, MasterCard, Discover, Diners Club,</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
</tr>
</tbody>
</table>

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 being supported for credit cards, automatic partial authorization reversals are also supported for:

- Debit cards and prepaid cards: see Chapter 4, "Debit Cards and Prepaid Cards," on page 86.

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 116.
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.

Interchange optimization does not work for card-present transactions.

Note

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

**Multiple Partial Captures**

**Processors:**

- AIBMS
- Asia, Middle East, and Africa Gateway
- Barclays
- CCS (CAFIS)
- Chase Paymentech Solutions
- FDC Compass
- 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:
  - 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.
- TSYS Acquiring Solutions
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.

- OmniPay Direct. CyberSource strongly recommends that you include the special request fields. The supported acquirers are:
  - 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* 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 203.
Multiple Partial Captures and Authorization Reversal after Void

Processors:
- Barclays
- Chase Paymentech Solutions
- FDC Compass
- GPN
- Litle
- LloydsTSB Cardnet
- OmniPay Direct. The supported acquirers are:
  - 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 66.

**Step 2**  
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 86.

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 86.

For details about authorizations and captures, see "Authorizing a Payment," page 30, and "Capturing an Authorization," page 46.
Credit Card Services Using the Simple Order API

Chapter 2 Credit Card Processing

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.

Warning

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.

Credit requests are batched in the same manner as captures. See "Captures," page 47.

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.

Note

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.

Important

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.

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.

Note

For stand-alone credits, CyberSource does not validate billTo_postalCode or shipTo_postalCode.
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 17 Required Fields for Credits

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccCreditService_run</td>
<td>Set to true.</td>
</tr>
<tr>
<td>ccCreditService_captureRequestID</td>
<td>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.</td>
</tr>
<tr>
<td>merchantID</td>
<td></td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td></td>
</tr>
<tr>
<td>paymentSolution</td>
<td>Include this field only if you are using Visa Checkout.</td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_grandTotalAmount</td>
<td>Either purchaseTotals_grandTotalAmount or item_%_unitPrice must be included in the request.</td>
</tr>
<tr>
<td>vc_orderID</td>
<td>Include this field only if you are using Visa Checkout.</td>
</tr>
</tbody>
</table>

See Appendix A, “API Fields,” on page 221 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 18 Additional Required Fields for Stand-Alone Credits

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_city¹</td>
<td></td>
</tr>
<tr>
<td>billTo_country¹</td>
<td></td>
</tr>
<tr>
<td>billTo_email¹</td>
<td></td>
</tr>
<tr>
<td>billTo_firstName¹</td>
<td></td>
</tr>
<tr>
<td>billTo_lastName¹</td>
<td></td>
</tr>
<tr>
<td>billTo_postalCode¹</td>
<td>Required only for transactions in the U.S. and Canada.</td>
</tr>
<tr>
<td>billTo_state¹</td>
<td>Required only for transactions in the U.S. and Canada.</td>
</tr>
<tr>
<td>billTo_street¹</td>
<td></td>
</tr>
<tr>
<td>card_accountNumber</td>
<td></td>
</tr>
<tr>
<td>card_cardType</td>
<td>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.</td>
</tr>
<tr>
<td>card_expirationMonth¹</td>
<td></td>
</tr>
<tr>
<td>card_expirationYear¹</td>
<td></td>
</tr>
</tbody>
</table>

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 72.

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 63.

Step 5 Include optional features in the request. See Chapter 5, "Optional Features," on page 97.
Credit Information for Specific Processors

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

Table 19 Credit Information for Specific Processors

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Credit Information</th>
</tr>
</thead>
</table>
| 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. |
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 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.

CyberSource always provides information to the processor for you for all capture and credit transactions. See "Merchant Descriptors," page 133.

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 65, "Request Fields," on page 222. 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 limits the authorization, capture, and credit amounts to 10 digits.

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 19  Credit Information for Specific Processors (Continued)

<table>
<thead>
<tr>
<th>Payment Processor</th>
<th>Credit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCN Gateway</td>
<td>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.</td>
</tr>
</tbody>
</table>
| 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.

- Lynk

CyberSource Latin American Processing does not support voids for Aura Card and Hipercard because transactions with these cards are captured immediately.

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.

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 67, and if your processor supports authorization reversal after void as described in "Authorization Reversal after Void (ARAV)," page 45, 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 56.

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 20 Required Fields for Voids

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>merchantID</td>
<td></td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td></td>
</tr>
<tr>
<td>orderRequestToken</td>
<td>Required only for Atos.</td>
</tr>
<tr>
<td>voidService_run</td>
<td>Set to <code>true</code>.</td>
</tr>
<tr>
<td>voidService_voidRequestID</td>
<td>Set to the request ID that was included in the capture or credit reply message.</td>
</tr>
</tbody>
</table>

See Appendix A, “API Fields,” on page 221 for:

- Detailed descriptions of these required request fields
- Reply fields
You must support the authorization features that your processor supports.

## Address Verification System (AVS)

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

### 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>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Visa, MasterCard, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td>You must contact CyberSource Customer Support to activate standard AVS for American Express Brighton.</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td>You must contact CyberSource Customer Support to activate standard AVS for American Express Direct.</td>
</tr>
<tr>
<td>Atos</td>
<td>Visa and MasterCard: The billing country must be Great Britain.</td>
</tr>
<tr>
<td>Barclays</td>
<td>Visa, MasterCard, Maestro (UK Domestic)</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard, and American Express: The billing country must be the U.S., Canada, or Great Britain.</td>
</tr>
<tr>
<td></td>
<td>Discover, Diners Club, and JCB: The billing country must be the U.S.</td>
</tr>
</tbody>
</table>
Table 21 Processes That Support Standard AVS (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cielo</td>
<td>Visa, MasterCard, American Express</td>
</tr>
<tr>
<td></td>
<td>Cielo can charge you additional fees for AVS processing. You must contact Cielo and CyberSource Customer Support to activate standard AVS for Cielo.</td>
</tr>
<tr>
<td></td>
<td>AVS is supported only for credit card transactions, not debit card transactions.</td>
</tr>
<tr>
<td></td>
<td><strong>Format for Raw AVS Codes</strong></td>
</tr>
<tr>
<td></td>
<td>The raw AVS response code is a concatenation of two values:</td>
</tr>
<tr>
<td></td>
<td>▪ The first value is the raw AVS code for the postal code.</td>
</tr>
<tr>
<td></td>
<td>▪ The second value is the raw AVS code for the street address.</td>
</tr>
<tr>
<td></td>
<td>If Cielo returns only one of the values, the missing value is indicated by a question mark (?). Examples:</td>
</tr>
<tr>
<td></td>
<td>▪ ?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.</td>
</tr>
<tr>
<td></td>
<td>▪ 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.</td>
</tr>
<tr>
<td>Comercio Latino</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard</td>
</tr>
<tr>
<td></td>
<td>Comercio Latino supports AVS input, but does not support AVS response values.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> Because a raw AVS response value is not available, there is a potential impact to the Decision Manager services.</td>
</tr>
<tr>
<td></td>
<td>You must contact CyberSource Customer Support to activate standard AVS for Comercio Latino.</td>
</tr>
<tr>
<td>CyberSource Latin American Processing</td>
<td>Visa, MasterCard, American Express, Diners Club</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>For AVS in Mexico, contact CyberSource Customer Support to have your account enabled for this feature.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> 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.</td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Discover</td>
</tr>
<tr>
<td>Elavon</td>
<td>Visa, MasterCard, Discover, Diners Club, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td></td>
<td>Your country and the billing country must be Great Britain. The currency must be British pounds.</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa, MasterCard, and American Express: The billing country must be the U.S., Canada, or Great Britain.</td>
</tr>
<tr>
<td></td>
<td>Discover and Diners Club: The billing country must be the U.S.</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>HBoS</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>HSBC</td>
<td>Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td></td>
</tr>
<tr>
<td>Litle</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Visa, MasterCard</td>
</tr>
</tbody>
</table>
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

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 364.

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.

---

When you use `businessRules_declineAVSFlags`, you must include the value $N$ in the list if you want to receive declines for the AVS code $N$.

---

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.

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+.

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 76.

---

### 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.
As part of EV for Little 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 22, "Request Fields for Electronic Verification," on page 77 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.

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 22 Request Fields for Electronic Verification

<table>
<thead>
<tr>
<th>Value That Is Being Verified</th>
<th>R/O for Authorizations</th>
<th>Request Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>R</td>
<td><code>billTo_email</code></td>
</tr>
<tr>
<td>First name</td>
<td>R</td>
<td><code>billTo_firstName</code></td>
</tr>
<tr>
<td>Last name</td>
<td>R</td>
<td><code>billTo_lastName</code></td>
</tr>
<tr>
<td>Phone number</td>
<td>O</td>
<td><code>billTo_phoneNumber</code></td>
</tr>
<tr>
<td>Postal code</td>
<td>R/O&lt;sup&gt;1&lt;/sup&gt;</td>
<td><code>billTo_postalCode</code></td>
</tr>
<tr>
<td>Street address</td>
<td>R</td>
<td><code>billTo_street1</code></td>
</tr>
</tbody>
</table>

<sup>1</sup> Required when the billing country is the U.S. or Canada; otherwise, optional.

<sup>2</sup> 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 75.
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 377 describes the mapped response codes.

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

<table>
<thead>
<tr>
<th>Value That Is Being Verified</th>
<th>API Field for Mapped Response</th>
<th>API Field for Raw Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>ccAuthReply_evEmail</td>
<td>ccAuthReply_evEmailRaw</td>
</tr>
<tr>
<td>First name and last name</td>
<td>ccAuthReply_evName</td>
<td>ccAuthReply_evNameRaw</td>
</tr>
<tr>
<td>Phone number</td>
<td>ccAuthReply_evPhoneNumber</td>
<td>ccAuthReply_evPhoneNumberRaw</td>
</tr>
<tr>
<td>Postal code</td>
<td>ccAuthReply_evPostalCode</td>
<td>ccAuthReply_evPostalCodeRaw</td>
</tr>
<tr>
<td>Street address</td>
<td>ccAuthReply_evStreet</td>
<td>ccAuthReply_evStreetRaw</td>
</tr>
</tbody>
</table>

Card Verification Numbers (CVNs)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Visa, MasterCard, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>American Express</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Asia, Middle East, and Africa Gateway</td>
<td>Visa, MasterCard, American Express, Diners Club</td>
</tr>
<tr>
<td>Atos</td>
<td>Visa, MasterCard, Carte Bleue</td>
</tr>
<tr>
<td>Barclays</td>
<td>Visa, MasterCard, Maestro (UK Domestic)</td>
</tr>
<tr>
<td>CCS (CAFIS)</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>Cielo</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Maestro (International), Elo, Aura</td>
</tr>
</tbody>
</table>
Chapter 3  Authorization Features

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comercio Latino</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CyberSource Latin American Processing</td>
<td>Visa, MasterCard, American Express, Elo</td>
</tr>
<tr>
<td><strong>Note</strong> 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.</td>
<td></td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Discover</td>
</tr>
<tr>
<td>Elavon</td>
<td>Visa, MasterCard, Discover, Diners Club, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td><strong>Note</strong> Elavon does not return a separate CVN response field in the authorization reply. When the card fails the CVN check, Elavon declines the authorization.</td>
<td></td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td><strong>Note</strong> 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.</td>
<td></td>
</tr>
<tr>
<td>FDI Australia</td>
<td>Visa, MasterCard, American Express, Diners Club</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td><strong>Note</strong> 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.</td>
<td></td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td><strong>Note</strong> 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.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 24  Processors That Support CVNs (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPN</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
<tr>
<td>HBoS</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>HSBC</td>
<td>Visa, MasterCard, Maestro (International)</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td></td>
</tr>
<tr>
<td>Ingenico ePayments</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>Ingenico ePayments was previously called <em>Global Collect.</em></td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong>: Do not include the CVN in a request for a recurring payment. See &quot;Recurring Payments,&quot; page 192.</td>
<td></td>
</tr>
<tr>
<td>JCN Gateway</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Nicos house card</td>
</tr>
<tr>
<td>Litle</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>Lloyds-Omnipay</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>Lynk</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
<tr>
<td>Moneris</td>
<td>Visa, MasterCard, American Express</td>
</tr>
<tr>
<td>OmniPay Direct</td>
<td>First Data Merchant Solutions (Europe): Visa, MasterCard, Discover, Diners Club, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td></td>
<td>Global Payments International Acquiring: Visa, MasterCard, Maestro (UK Domestic), Maestro (International)</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>OmniPay-Ireland is the CyberSource name for HSBC International.</td>
<td></td>
</tr>
<tr>
<td>RBS WorldPay Atlanta</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
<tr>
<td>Streamline</td>
<td>Visa, MasterCard, Maestro (UK Domestic), Carte Bleue, Dankort</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
</tbody>
</table>
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.

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 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. Appendix H, "CVN Codes," on page 372 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 25 CVN Results for Each Card Type

<table>
<thead>
<tr>
<th>Card Type</th>
<th>CVN Results</th>
</tr>
</thead>
</table>
| 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 CVN with American Express, see "Testing American Express Card Verification," page 220. |
| 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 17.  
- 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
Chapter 3  Authorization Features

- 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:
  - 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

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.
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 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 120.

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.
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.

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.

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

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 96.

### Table 26  Processors Supported for Partial Authorizations

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Types for Debit Cards and Prepaid Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Discover</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> Partial authorizations are not available for MasterCard transactions in the IDR currency on CyberSource through VisaNet.</td>
</tr>
<tr>
<td>FDC Compass¹</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, MasterCard, American Express, Discover², Diners Club², JCB (US Domestic)²,³</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, American Express, Discover², Diners Club², JCB (US Domestic)²,³</td>
</tr>
<tr>
<td>FDMS South⁴</td>
<td>Visa, MasterCard, American Express, Discover², JCB (US Domestic)²,³</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Little</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
</tbody>
</table>

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

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.

How a Partial Authorization Works

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 90.

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.

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.

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 90.
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

   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 54.

   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 39.

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.

---

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.
Chapter 4 Debit Cards and Prepaid Cards

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 39.

- 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.

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 54.
Balance Responses

Normally, balance responses are not returned for debit cards.

Note

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

Note

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

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 221.
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>
<thead>
<tr>
<th>Processor</th>
<th>Card Type</th>
<th>Balance Field</th>
<th>Currency Field</th>
<th>Sign Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Maestro (International)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

1 For Discover, some processors return the balance in the `ccAuthReply_authorizationCode` field.
Table 27 Processors Supported for Balance Responses (Continued)

<table>
<thead>
<tr>
<th>Processor</th>
<th>Card Type</th>
<th>Balance Field</th>
<th>Currency Field</th>
<th>Sign Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDMS South</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Litle</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>Yes</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MasterCard</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>American Express</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Discover</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Diners Club</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>JCB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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 25.

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 26, "Processors Supported for Partial Authorizations," on page 87 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 213.

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 360.
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 28  Aggregator Terminology

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

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:
- invoiceHeaderMerchantDescriptor
- invoiceHeaderMerchantDescriptorCity
- invoiceHeaderMerchantDescriptorContact
- invoiceHeaderMerchantDescriptorCountry
- invoiceHeaderMerchantDescriptorPostalCode
- invoiceHeaderMerchantDescriptorState
- invoiceHeaderMerchantDescriptorStreet

All fields except the merchant descriptor fields are described in Appendix A, "API Fields," on page 221. For information about the merchant descriptor fields, see Table 37, "Merchant Descriptor Fields for American Express Direct," on page 135.

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 29: Values for Providing a Sub-Merchant’s Business Name on American Express Direct

<table>
<thead>
<tr>
<th>Option</th>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 37, “Merchant Descriptor Fields for American Express Direct,” on page 135. |
| 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

The following fields are optional for aggregator transactions with American Express when requesting an authorization, capture, or credit:
- invoiceHeader_submerchantEmail
- invoiceHeader_submerchantID
- invoiceHeader_submerchantTelephone

The following fields are required for aggregator transactions with MasterCard when requesting an authorization:
- ccAuthService_aggregatorID
- invoiceHeader_salesOrganizationID
- invoiceHeader_submerchantID

The following fields are optional for aggregator transactions with any card type supported by your acquirer:
- 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 221.
The merchant descriptor fields are described in Table 41, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 143 for authorizations, and in Table 42, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 145 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 validate 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 221.

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 221.

Airline Data

See Airline Processing Using the Simple Order API.

American Express SafeKey

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 213.
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 221.

Bill Payments with Visa

See "Visa Bill Payments," page 211.

Card-Present Data

See Card-Present Processing Using the Simple Order API.
Card Type Indicators (CTIs)

Service:
- Authorization

Processor:
- Chase Paymentech Solutions

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 30 CTI Acceptance Criteria

<table>
<thead>
<tr>
<th>Card Type</th>
<th>Acceptance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express</td>
<td>CTI is not supported.</td>
</tr>
<tr>
<td>Carte Blanche</td>
<td>CTI is not supported.</td>
</tr>
<tr>
<td>Diners Club</td>
<td>Currency is USD or CAD.</td>
</tr>
<tr>
<td>Discover</td>
<td>Currency is USD or CAD.</td>
</tr>
<tr>
<td>JCB</td>
<td>Currency is USD.</td>
</tr>
<tr>
<td>MasterCard</td>
<td>Any currency.</td>
</tr>
<tr>
<td>Visa</td>
<td>Amount is not 0 (zero). Any currency.</td>
</tr>
</tbody>
</table>

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
Chapter 5  Optional Features

- ccAuthReply_cardRegulated
- ccAuthReply_cardSignatureDebit

The CTI fields are described in Appendix A, "API Fields," on page 221.

---

## 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.

---

![Important]

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

---

## Customer Profiles

See "Payment Tokenization," page 189.
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.

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 31  DCC Terminology**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing currency</td>
<td>Cardholder’s currency in which their card is denominated and in which transactions are posted to the cardholder’s account.</td>
</tr>
<tr>
<td>or Cardholder billing currency</td>
<td></td>
</tr>
<tr>
<td>Converted amount</td>
<td>Amount of the transaction, denominated in the cardholder’s billing currency.</td>
</tr>
<tr>
<td>DCC disclosure</td>
<td>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.”</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>Conversion factor used to convert an original amount to a converted amount.</td>
</tr>
<tr>
<td>or DCC exchange rate</td>
<td></td>
</tr>
<tr>
<td>Local currency</td>
<td>Your selling currency that you use for pricing your goods and in which you usually submit transactions for processing.</td>
</tr>
<tr>
<td>or Merchant local currency</td>
<td></td>
</tr>
<tr>
<td>Original amount</td>
<td>Amount of the transaction, denominated in your local currency.</td>
</tr>
<tr>
<td>Prefix</td>
<td>First 6 to 10 digits of a Visa or MasterCard credit card number.</td>
</tr>
<tr>
<td>or Account prefix</td>
<td></td>
</tr>
</tbody>
</table>
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>
<thead>
<tr>
<th>Request Field for the Authorization, Capture, and Credit Services</th>
<th>Reply Field for the DCC Service</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>dcc_dccIndicator</td>
<td>No corresponding field.</td>
<td>DCC indicator: If the customer opted in, set the indicator to 1. If the customer did not opt in, set the indicator to 3.</td>
</tr>
<tr>
<td>purchaseTotals_exchangeRate</td>
<td>purchaseTotals_exchangeRate</td>
<td>Exchange rate</td>
</tr>
<tr>
<td>purchaseTotals_exchangeRate_TimeStamp</td>
<td>purchaseTotals_exchangeRate_TimeStamp</td>
<td>Exchange rate timestamp</td>
</tr>
<tr>
<td>purchaseTotals_foreignAmount</td>
<td>purchaseTotals_foreignAmount</td>
<td>Converted amount</td>
</tr>
<tr>
<td>purchaseTotals_foreignCurrency</td>
<td>purchaseTotals_foreignCurrency</td>
<td>Converted currency code</td>
</tr>
</tbody>
</table>
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.
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
- GPN
- HBoS
- HSBC
- Lloyds-OmniPay
- LloydsTSB Cardnet
- OmniPay Direct. The supported acquirers are:
  - 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

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.

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 requesting the authorization.
- 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.

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 requesting the authorization.
- If you do not capture the authorization, you must reverse it.
- Chargeback protection is in effect for 30 days following the authorization.

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

Include the authIndicator field in your authorization request. See "Request Fields," page 222, for the field description.
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.

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 requesting the authorization.
- 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.

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 requesting the authorization.
- 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.
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 requesting the authorization.
- 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.

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.

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

Include the authIndicator field in your authorization request. See "Request Fields," page 222, for the field description.
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:
  - 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 33, and "Creating a Capture Request," page 48:

- 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

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 33  Processors That Support Installment Payments

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa</td>
</tr>
<tr>
<td>Cielo</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Elo, Aura</td>
</tr>
<tr>
<td></td>
<td>On Cielo, installment payments are not supported for debit transactions.</td>
</tr>
<tr>
<td>Comercio Latino</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Elo, Aura</td>
</tr>
<tr>
<td></td>
<td>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 auto capture. For information on auto captures, see &quot;Auto Captures,&quot; page 32.</td>
</tr>
<tr>
<td>CyberSource Latin American Processing</td>
<td>Visa</td>
</tr>
</tbody>
</table>

**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 33  Processors That Support Installment Payments (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, American Express</td>
</tr>
<tr>
<td><strong>Note</strong> Not all card types are supported for all acquirers.</td>
<td></td>
</tr>
<tr>
<td>The supported acquirers are:</td>
<td></td>
</tr>
<tr>
<td>• Arab African International Bank (AAIB)</td>
<td></td>
</tr>
<tr>
<td>• Asia Commercial Bank (ACB)</td>
<td></td>
</tr>
<tr>
<td>• Auckland Savings Bank (ASB)</td>
<td></td>
</tr>
<tr>
<td>• Australia and New Zealand Banking Group Limited (ANZ)</td>
<td></td>
</tr>
<tr>
<td>• Axis Bank Ltd of India</td>
<td></td>
</tr>
<tr>
<td>• Banco Nacional de México (Banamex)</td>
<td></td>
</tr>
<tr>
<td>• Bank of Ayudhya (BAY)</td>
<td></td>
</tr>
<tr>
<td>• Bank of China (BOC)</td>
<td></td>
</tr>
<tr>
<td>• Banque Pour Le Commerce Exterieur Lao (BCEL)</td>
<td></td>
</tr>
<tr>
<td>• Commercial Bank of Qatar</td>
<td></td>
</tr>
<tr>
<td>• CrediMax (Bahrain)</td>
<td></td>
</tr>
<tr>
<td>• CTBC Bank Ltd.</td>
<td></td>
</tr>
<tr>
<td>• Habib Bank Ltd (HBL)</td>
<td></td>
</tr>
<tr>
<td>• HDFC Bank Ltd of India</td>
<td></td>
</tr>
<tr>
<td>• Mashreq</td>
<td></td>
</tr>
<tr>
<td>• National Bank of Abu Dhabi (NBAD)</td>
<td></td>
</tr>
<tr>
<td>• Overseas Chinese Banking Corp (OCBC)</td>
<td></td>
</tr>
<tr>
<td>• Vantiv</td>
<td></td>
</tr>
<tr>
<td>• Vietcombank</td>
<td></td>
</tr>
<tr>
<td>• VietinBank</td>
<td></td>
</tr>
<tr>
<td>• Wing Hang Bank</td>
<td></td>
</tr>
<tr>
<td>• Wing Lung Bank</td>
<td></td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, Discover, Diners Club, JCB (US Domestic)</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa</td>
</tr>
<tr>
<td>Little</td>
<td>Visa</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Visa</td>
</tr>
<tr>
<td>OmniPay-Ireland is the CyberSource name for HSBC International.</td>
<td></td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa</td>
</tr>
</tbody>
</table>
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>
<thead>
<tr>
<th>Type of Installment Payments</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuer installments</td>
<td>You send one transaction to American Express.</td>
</tr>
<tr>
<td>American Express calls this arrangement a deferred payment plan.</td>
<td>American Express charges the amount to the cardholder in installments.</td>
</tr>
<tr>
<td></td>
<td>You receive one payment from American Express.</td>
</tr>
<tr>
<td>Merchant installments</td>
<td>You send one transaction to American Express.</td>
</tr>
<tr>
<td>American Express calls this arrangement Plan N.</td>
<td>American Express charges the amount to the cardholder in installments.</td>
</tr>
<tr>
<td></td>
<td>You receive payment from American Express in installments.</td>
</tr>
</tbody>
</table>

Installment payments on American Express Direct are supported only in Argentina and Mexico:

- If you are in Argentina, the currency for your installment transactions must be ARS.
- If you are in Mexico, the currency for your installment transactions must be MXN, and 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 370.
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 221.

---

### 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 138, and "FDC Compass Merchant Descriptors," page 149.

**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 221.
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 or MasterCard:

**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 221.

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 221.
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** 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 221.

---

**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 221.
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 221.
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 221.

**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 221.
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>
<thead>
<tr>
<th>Payment Option</th>
<th>API Fields Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonus payment</td>
<td>jpo_paymentMethod</td>
</tr>
<tr>
<td>Installment payments (2 to 36 payments)</td>
<td>jpo_paymentMethod, jpo_installments</td>
</tr>
<tr>
<td>Revolving repayments</td>
<td>jpo_paymentMethod</td>
</tr>
</tbody>
</table>

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**


**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


MasterPass

Services:
- Authorization
- Credit—Chase Paymentech Solutions and CyberSource through VisaNet only

Processors:
- Chase Paymentech Solutions
- CyberSource through VisaNet
- OmniPay Direct. The supported acquirer is:
  - 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 221.
Merchant Descriptors

Processors:
- "AIBMS Merchant Descriptors," page 133
- "American Express Direct Merchant Descriptors," page 134
- "Chase Paymentech Solutions Merchant Descriptors," page 138
- "Cielo Merchant Descriptors," page 141
- "Comercio Latino Merchant Descriptors," page 142
- "CyberSource through VisaNet Merchant Descriptors," page 142
- "Elavon Merchant Descriptors," page 148
- "FDC Compass Merchant Descriptors," page 149
- "FDC Nashville Global Merchant Descriptors," page 153
- "FDMS South Merchant Descriptors," page 158
- "Ingenico ePayments Merchant Descriptors," page 160
- "GPN Merchant Descriptors," page 159
- "Little Merchant Descriptors," page 161
- "OmniPay Direct Merchant Descriptors," page 164
- "OmniPay-Ireland Merchant Descriptors," page 166
- "Streamline Merchant Descriptors," page 168
- "TSYS Acquiring Solutions Merchant Descriptors," page 169

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>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Merchant description that is displayed on the cardholder’s statement. When you include more than one consecutive space, extra spaces are removed.</td>
<td>ccAuthService ccCaptureService ccCreditService Required when invoiceHeader_merchantDescriptor Contact is included in the request.</td>
<td>String (22)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Contact</td>
<td>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.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
</tbody>
</table>

**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 37  Merchant Descriptor Fields for American Express Direct

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 98, for information about merchant descriptors for aggregator merchants. | ccCaptureService, ccCreditService | 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 37  Merchant Descriptor Fields for American Express Direct (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor Contact</td>
<td>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</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Country</td>
<td>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</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor PostalCode</td>
<td>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.</td>
<td>ccCaptureService (O) ccCreditService (Required when you are an aggregator; otherwise, optional)</td>
<td>String (15)</td>
</tr>
</tbody>
</table>

¹ To add this value to your CyberSource account, contact CyberSource Customer Support.
### Table 37  Merchant Descriptor Fields for American Express Direct (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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.

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 140. The information in that section supersedes the information in Appendix A, "API Fields," on page 221.

Merchant Descriptor Logic

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 38  Merchant Descriptor Fields for Chase Paymentech Solutions**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_amexDataTAA1</td>
<td>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.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA2</td>
<td></td>
<td></td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA3</td>
<td></td>
<td></td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA4</td>
<td></td>
<td></td>
<td>String (40)</td>
</tr>
</tbody>
</table>
| 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)        |
Optional Features

Cielo Merchant Descriptors

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

Services:
- Authorization

Table 38  Merchant Descriptor Fields for Chase Paymentech Solutions (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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:  
  - PCCCCCCCCCCC
  - 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) |

Table 39  Merchant Descriptor Fields for Authorizations for Cielo

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>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.</td>
<td>ccAuthService (O)</td>
<td>String (13)</td>
</tr>
</tbody>
</table>
Chapter 5  Optional Features

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

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

Table 40  Merchant Descriptor Fields for Authorizations for Comercio Latino

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>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.</td>
<td>ccAuthService (O)</td>
<td>String (13)</td>
</tr>
</tbody>
</table>

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.

Important

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.

CyberSource through VisaNet supports the merchant descriptors shown in Table 41, "Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet," on page 143 for authorizations, and the merchant descriptors shown in Table 42, "Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet," on page 145 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 41  Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| `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_merchantDescriptorContact` | 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 41  Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor Country</td>
<td>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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccAuthService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor PostalCode</td>
<td>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. <strong>Important</strong> This value must consist of English characters. <strong>Important</strong> 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.</td>
<td>ccAuthService (O)</td>
<td>String (14)</td>
</tr>
</tbody>
</table>
### Table 41  Merchant Descriptor Fields for Authorizations for CyberSource through VisaNet (Continued)

| Field                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Used By: Required (R) or Optional (O) | Data Type & Length |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| invoiceHeader_          | State code or region code for your business location. This value might be displayed on the cardholder’s statement.                                                                                                                                                                                                                                                                                                                                                                                                       |
| merchantDescriptor     | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

### Table 42  Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet

| Field                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Used By: Required (R) or Optional (O) | Data Type & Length |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| invoiceHeader_          | Your business name. This name is displayed on the cardholder’s statement. When you include more than one consecutive space, extra spaces are removed.                                                                                                                                                                                                                                                                                                                                                                                   |
| merchantDescriptor     | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |


### Optional Features

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptorAlternate</td>
<td>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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptorCity</td>
<td>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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptorContact</td>
<td>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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (14)</td>
</tr>
</tbody>
</table>
### Table 42  Merchant Descriptor Fields for Captures and Credits for CyberSource through VisaNet (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>invoiceHeader_merchantDescriptor Country</code></td>
<td>Country code for your business location. Use the standard <em>ISO Standard Country Codes</em>. 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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td><code>invoiceHeader_merchantDescriptor PostalCode</code></td>
<td>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. <strong>Important</strong> This value must consist of English characters. <strong>Important</strong> 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.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (14)</td>
</tr>
</tbody>
</table>
### 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>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>State code or region code for your business location. This value might be displayed on the cardholder’s statement.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (3)</td>
</tr>
<tr>
<td>State</td>
<td>For the U.S. and Canada, use the standard <em>State, Province, and Territory Codes for the United States and Canada</em>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> This value must consist of English characters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Street address for your business location. This value might be displayed on the cardholder’s statement.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (60)</td>
</tr>
<tr>
<td>Street</td>
<td>When you do not include this value in your capture or credit request, CyberSource uses the merchant street name from your CyberSource account.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> This value must consist of English characters.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 5  Optional Features

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.

Table 43  Merchant Descriptor Field for Elavon

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>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.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>String (22)</td>
</tr>
</tbody>
</table>

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 150. The information in that section supersedes the information in Appendix A, "API Fields," on page 221.
Chapter 5  Optional Features

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 44  Merchant Descriptor Fields for FDC Compass

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_amexDataTAA1</td>
<td>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 <code>invoiceHeader_amexDataTAA1</code>, 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 <em>Level II and Level III Processing Using the Simple Order API</em>.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Optional Features

**Table 44  Merchant Descriptor Fields for FDC Compass (Continued)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_</td>
<td>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:</td>
<td>ccAuthService ccCaptureService ccCreditService Required when invoiceHeader_ merchantDescriptor Contact is included in the request.</td>
<td>String (22)</td>
</tr>
<tr>
<td>merchantDescriptor</td>
<td>*&lt;12-character merchant name&gt;*PYMT&lt;N&gt; OF&lt;M&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*&lt;7-character merchant name&gt;*PYMT&lt;N&gt; OF&lt;M&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*&lt;3-character merchant name&gt;*PYMT&lt;N&gt; OF&lt;M&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>where &lt;N&gt; is the payment number and &lt;M&gt; is the total number of payments. For example, for the third installment in a series of seven payments, the PYMT&lt;N&gt;OF&lt;M&gt; portion of the merchant descriptor would be PYMT3OF7.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For other types of transactions, you must use one of the following formats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>&lt;12-character merchant name&gt;</em>&lt;9-character product description&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>&lt;7-character merchant name&gt;</em>&lt;14-character product description&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>&lt;3-character merchant name&gt;</em>&lt;18-character product description&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 44  Merchant Descriptor Fields for FDC Compass (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 155. The information in that section supersedes the information in Appendix A, "API Fields,” on page 221.

Merchant Descriptor Logic

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.

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 45  Merchant Descriptor Fields for FDC Nashville Global

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 153. | ccAuthService (O)  ccCaptureService (O)  ccCreditService (O) | String (22) |
| invoiceHeader_merchantDescriptor | 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 153. 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 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 153. | ccAuthService (O)  ccCaptureService (O)  ccCreditService (O) | String (11) |
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor Country</td>
<td>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 &quot;Merchant Descriptor Logic,&quot; page 153.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor PostalCode</td>
<td>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 &quot;Merchant Descriptor Logic,&quot; page 153.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (10)</td>
</tr>
</tbody>
</table>
### Table 45  Merchant Descriptor Fields for FDC Nashville Global (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 153. | 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 153. | 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>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Merchant description that is displayed on the cardholder's statement. When you include more than one consecutive space, extra spaces are removed.</td>
<td>ccAuthService ccCaptureService ccCreditService Required when invoiceHeader_merchantDescriptor Contact is included in the request.</td>
<td>String (22)</td>
</tr>
</tbody>
</table>
# 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>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Merchant description that is displayed on the cardholder’s statement. When you include more than one consecutive space, extra spaces are removed.</td>
<td>ccAuthService, ccCaptureService, ccCreditService [Required when invoiceHeader_merchantDescriptor Contact is included in the request.</td>
<td>String (22)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Contact</td>
<td>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.</td>
<td>ccAuthService (O), ccCaptureService (O), ccCreditService (O)</td>
<td>String (13)</td>
</tr>
</tbody>
</table>
Ingenico ePayments Merchant Descriptors

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>
<thead>
<tr>
<th>Field: invoiceHeader_merchantDescriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchant description that is displayed on the cardholder’s statement. When you include more than one consecutive space, extra spaces are removed.</td>
</tr>
</tbody>
</table>

| Used By: |
| ccAuthService |
| ccCaptureService |
| ccCreditService |
| Required when invoiceHeader_merchantDescriptor Contact is included in the request. |

<table>
<thead>
<tr>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>String (22)</td>
</tr>
</tbody>
</table>

### Table 48: Merchant Descriptor Field for Ingenico ePayments
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 49  Merchant Descriptor Fields for Litle

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 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 | ccAuthService ccCreditService | String (22) |

¹ To add this value to your CyberSource account, contact CyberSource Customer Support.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptorAlternate</td>
<td>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.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptorCity</td>
<td>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.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (50)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptorContact</td>
<td>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.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
</tbody>
</table>

1 To add this value to your CyberSource account, contact CyberSource Customer Support.
Chapter 5  Optional Features

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 50  Merchant Descriptor Fields for OmniPay Direct

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_</td>
<td>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. This value must consist of English characters.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (23)</td>
</tr>
<tr>
<td>merchantDescriptor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_</td>
<td>City for your business location. This value might be displayed on the cardholder’s statement.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (13)</td>
</tr>
<tr>
<td>merchantDescriptorCity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Important  This value must consist of English characters.
### Table 50  Merchant Descriptor Fields for OmniPay Direct (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor Country</td>
<td>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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor PostalCode</td>
<td>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. <strong>Important</strong> This value must consist of English characters. <strong>Important</strong> 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.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (10)</td>
</tr>
</tbody>
</table>
### Table 50  Merchant Descriptor Fields for OmniPay Direct (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor State</td>
<td>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 <em>State, Province, and Territory Codes for the United States and Canada</em>. 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. <strong>Important</strong> This value must consist of English characters.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (3)</td>
</tr>
</tbody>
</table>

---

**OmniPay-Ireland Merchant Descriptors**

OmniPay-Ireland is the CyberSource name for HSBC International.

**Note**

### 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 51  Merchant Descriptor Fields for OmniPay-Ireland**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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> | 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>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Your business name. When you include more than one consecutive space, extra spaces are removed.</td>
<td>ccCaptureService, ccCreditService</td>
<td>String (22)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>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 website. When you provide a telephone number in this field, the first three digits must be numeric.</td>
<td>ccCaptureService, ccCreditService</td>
<td>String (13)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Postal code for your business location.</td>
<td>ccCaptureService, ccCreditService</td>
<td>String (10)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>Street address for your business location.</td>
<td>ccCaptureService, ccCreditService</td>
<td>String (26)</td>
</tr>
</tbody>
</table>
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 53 Merchant Descriptor Fields for TSYS Acquiring Solutions

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_</td>
<td>Your business name. When you include more than one consecutive space, extra</td>
<td>ccCaptureService ccCreditService</td>
<td>American Express card type: String (38) Other card</td>
</tr>
<tr>
<td>merchantDescriptor</td>
<td>spaces are removed.</td>
<td></td>
<td>types: String (23)</td>
</tr>
<tr>
<td></td>
<td>When you do not include this value in your capture or credit request,</td>
<td>Required when the merchant descriptor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CyberSource uses the business name from your CyberSource account.¹</td>
<td>contact field is included in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>request; otherwise, optional.</td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_</td>
<td>City for your business location.</td>
<td>ccCaptureService (O) ccCreditService</td>
<td>American Express card type: String (21) Other card</td>
</tr>
<tr>
<td>merchantDescriptorCity</td>
<td>When you do not include this value in your request, CyberSource uses the</td>
<td>(O)</td>
<td>types: String (13)</td>
</tr>
<tr>
<td></td>
<td>value that is in your CyberSource account.¹</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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.

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

**Note**

**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.

<table>
<thead>
<tr>
<th>Transaction to Reverse or Void</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization</td>
<td>Request the full authorization reversal service as described in &quot;Creating a Full Authorization Reversal Request,&quot; page 44. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your reversal request to your original request.</td>
</tr>
<tr>
<td>Capture or sale</td>
<td>1 Request the void service as described in &quot;Creating a Void Request,&quot; page 67. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your void request to your original request.</td>
</tr>
<tr>
<td></td>
<td>2 Request the authorization reversal service as described in &quot;Creating a Full Authorization Reversal Request,&quot; page 44. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your reversal request to your original request.</td>
</tr>
<tr>
<td>Credit</td>
<td>Request the void service as described in &quot;Creating a Void Request,&quot; page 67. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your void request to your original request.</td>
</tr>
</tbody>
</table>

**Step 3** If the data for the original transaction is in the CyberSource database, 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.

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

**Note**

**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.

<table>
<thead>
<tr>
<th>Transaction to Reverse or Void</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization</td>
<td>Request the full authorization reversal service as described in &quot;Creating a Full Authorization Reversal Request,&quot; page 44. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your reversal request to your original request.</td>
</tr>
<tr>
<td>Capture or sale</td>
<td>Request the void service as described in &quot;Creating a Void Request,&quot; page 67. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your void request to your original request. CyberSource automatically handles authorization reversals on capture and sale requests.</td>
</tr>
<tr>
<td>Credit</td>
<td>Request the void service as described in &quot;Creating a Void Request,&quot; page 67. Instead of including the request ID in your request message, include the <code>merchantTransactionIdentifier</code> field. The merchant transaction ID links your void request to your original request.</td>
</tr>
</tbody>
</table>

**Step 3**
If the data for the original transaction is in the CyberSource database, the reply message for the reversal or void request includes the following fields:

- `originalTransaction_amount`
- `originalTransaction_reasonCode`
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 189.
Partial Shipments

See “Split Shipments,” page 203.

Payer Authentication

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

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 54  Supported Card Types for Payer Authentication

<table>
<thead>
<tr>
<th>Type of Payer Authentication</th>
<th>Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verified by Visa</td>
<td>Visa</td>
</tr>
<tr>
<td>JCB J/Secure</td>
<td>JCB</td>
</tr>
<tr>
<td>MasterCard SecureCode</td>
<td>MasterCard, Maestro (International), Maestro (UK Domestic)</td>
</tr>
<tr>
<td>American Express SafeKey</td>
<td>American Express</td>
</tr>
</tbody>
</table>

Verified by Visa

Service:
- Authorization

Processors:
- AIBMS
- Asia, Middle East, and Africa Gateway
- Atos
- Barclays
- CCS (CAFIS)
- Chase Paymentech Solutions
Chapter 5  Optional Features

- 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.

**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 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:
    - 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 368.

---

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 402 describes the mapped response codes.
## Table 55 Request Fields for Verified by Visa and JCB J/Secure

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAVV</strong>—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.</td>
<td>ccAuthService_cavv</td>
<td>payerAuthValidateReply_cavv</td>
</tr>
<tr>
<td>■ Used for all processors that support Verified by Visa and/or JCB J/Secure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Required when the commerce indicator is js, vBV, or vBV_attempted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Optional when the commerce indicator is js_attempted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CAVV Algorithm</strong>—algorithm for generating the CAVV.</td>
<td>ccAuthService_cavvAlgorithm</td>
<td>payerAuthValidateReply_cavvAlgorithm</td>
</tr>
<tr>
<td>■ Used only for these processors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Atos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Ingenico ePayments when a third-party provider authenticates the transaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Required when you include the CAVV in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0: HMAC (hash-based message authentication code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: CVV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: CVV with ATN</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong> Ingenico ePayments was previously called Global Collect.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECI</td>
<td>electronic commerce indicator.</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Used for all processors that support Verified by Visa and/or JCB J/Secure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Always required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possible values for a Verified by Visa or JCB J/Secure transaction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>js: Successful JCB J/Secure transaction.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>js_attempted: JCB J/Secure transaction was attempted but not authenticated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vbv: Successful Verified by Visa transaction.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vbv_attempted: Verified by Visa transaction was attempted but not authenticated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vbv_failure: Verified by Visa authentication failed. Available only for HSBC and Streamline.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECI Raw</th>
<th>raw electronic commerce indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Used for all processors that support Verified by Visa and/or JCB J/Secure.</td>
</tr>
<tr>
<td></td>
<td>Required when the payer authentication validation service returns a raw ECI value.</td>
</tr>
<tr>
<td></td>
<td>Some processors require the raw ECI to guarantee chargeback protection. Contact CyberSource Customer Support for information about your processor’s requirements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECI</td>
<td>ccAuthService_commerceIndicator</td>
<td>payerAuthValidateReply_commerceIndicator</td>
</tr>
<tr>
<td>ECI Raw</td>
<td>ccAuthService_eciRaw</td>
<td>payerAuthValidateReply_eciRaw</td>
</tr>
</tbody>
</table>
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 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 55 Request Fields for Verified by Visa and JCB J/Secure (Continued)**

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARes Status</strong>—payer authentication response status.</td>
<td>ccAuthService_paresStatus</td>
<td>payerAuthValidateReply_paresStatus</td>
</tr>
</tbody>
</table>
**Chapter 5  Optional Features**

**Table 55  Request Fields for Verified by Visa and JCB J/Secure (Continued)**

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VERes Enrolled</strong>—verification response enrollment status.</td>
<td>ccAuthService_veresEnrolled</td>
<td>payerAuthEnrollReply_veresEnrolled</td>
</tr>
<tr>
<td>▪ Used only for the Asia, Middle East, and Africa Gateway.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Required for all payer authentication transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Y: Authentication available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ N: Cardholder not participating.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ U: Unable to authenticate regardless of the reason.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>XID</strong>—transaction identifier. Must be 28-character base64 or 40-character hex binary.</td>
<td>ccAuthService_xid</td>
<td>payerAuthValidateReply_xid</td>
</tr>
<tr>
<td>▪ Used for all processors that support Verified by Visa and/or JCB J/Secure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ For Atos: required for a successful Verified by Visa transaction, which is indicated when the commerce indicator is vbv.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ For all other processors: required when the commerce indicator is js or vbv.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Optional when the commerce indicator is js_attempted or vbv_attempted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ 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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
JCB J/Secure

Service:
- Authorization

Processors:
- CCS (CAFIS)
- CyberSource through VisaNet: This feature is 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 55, "Request Fields for Verified by Visa and JCB J/Secure," on page 177 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:
  - 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 56, "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 56  Request Fields for MasterCard SecureCode

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAVV Algorithm</strong>—algorithm for generating the UCAF authentication data.</td>
<td>ccAuthService_cavvAlgorithm</td>
<td>payerAuthValidateReply_cavvAlgorithm</td>
</tr>
<tr>
<td>■ Used only for these processors:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Atos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Ingenico ePayments when a third-party provider authenticates the transaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Required when you include the UCAF authentication data in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0: HMAC (hash-based message authentication code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: CVV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: CVV with ATN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3: MasterCard SPA (secure payment algorithm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong> Ingenico ePayments was previously called Global Collect.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ECI</strong>—electronic commerce indicator.</td>
<td>ccAuthService_commerceIndicator</td>
<td>payerAuthValidateReply_commerceIndicator</td>
</tr>
<tr>
<td>■ Used for all processors that support MasterCard SecureCode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Always required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Possible values for a MasterCard SecureCode transaction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ spa: MasterCard SecureCode transaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ECI Raw</strong>—raw electronic commerce indicator.</td>
<td>ccAuthService_eciRaw</td>
<td>payerAuthValidateReply_eciRaw</td>
</tr>
<tr>
<td>■ Used for all processors that support MasterCard SecureCode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Required when the payer authentication validation service returns a raw ECI value.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Some processors require the raw ECI to guarantee chargeback protection. Contact CyberSource Customer Support for information about your processor’s requirements.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARes Status</td>
<td>ccAuthService_paresStatus</td>
<td>payerAuthValidateReply_paresStatus</td>
</tr>
</tbody>
</table>

**Table 56 Request Fields for MasterCard SecureCode (Continued)**
### Optional Features

#### UCAF Authentication Data

- **Definition:** Authentication data for the universal cardholder authentication field.
- **Usage:**
  - 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 Collection Indicator

- **Definition:** Collection indicator for the universal cardholder authentication field.
- **Usage:**
  - Used for all processors that support MasterCard SecureCode.
  - Always required.
  - Possible values:
    - 0: UCAF collection is not supported at your website.
    - 1: UCAF collection is supported at your website and the UCAF might have been populated.
    - 2: UCAF collection is supported at your website and the UCAF was populated. This value indicates a successful MasterCard SecureCode transaction.
    - 5: UCAF collection is supported at your website, 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 website, and the UCAF was populated based on the risk assessment that you performed. This value is supported only for MasterPass transactions.

### Table 56  Request Fields for MasterCard SecureCode (Continued)

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UCAF Authentication Data</strong></td>
<td>ucaf_authenticationData</td>
<td>payerAuthValidateReply_ucafAuthenticationData</td>
</tr>
<tr>
<td><strong>UCAF Collection Indicator</strong></td>
<td>ucaf_collectionIndicator</td>
<td>payerAuthValidateReply_ucafCollectionIndicator</td>
</tr>
</tbody>
</table>
American Express SafeKey

**Service:**
- Authorization

**Processors:**
- American Express Direct: this feature is mandatory for transactions that originate in Singapore.
- CyberSource through VisaNet: this feature is 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.

---

**Table 56  Request Fields for MasterCard SecureCode (Continued)**

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VERes Enrolled</strong>—verification response enrollment status.</td>
<td>ccAuthService_veresEnrolled</td>
<td>payerAuthEnrollReply_veresEnrolled</td>
</tr>
<tr>
<td>Used only for the Asia, Middle East, and Africa Gateway.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required for all payer authentication transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Y: Authentication available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• N: Cardholder not participating.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• U: Unable to authenticate regardless of the reason.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>XID</strong>—transaction identifier. Must be 28-character base64 or 40-character hex binary.</td>
<td>ccAuthService_xid</td>
<td>payerAuthValidateReply_xid</td>
</tr>
<tr>
<td>Used for all processors that support MasterCard SecureCode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Atos: required for a successful MasterCard SecureCode transaction, which is indicated when the UCAF collection indicator is 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For all other processors: required when the payer authentication validation service returns an XID value.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 363, describes the mapped response codes.

### Table 57 Request Fields for American Express SafeKey

<table>
<thead>
<tr>
<th>Value and Requirements</th>
<th>Request Field for the Authorization Service</th>
<th>Get the Value from this Payer Authentication Reply Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAVV</strong>—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.</td>
<td><code>ccAuthService_cavv</code></td>
<td><code>payerAuthValidateReply_cavv</code></td>
</tr>
<tr>
<td><strong>ECI</strong>—electronic commerce indicator. This value is required. Possible values:</td>
<td><code>ccAuthService_commerceIndicator</code></td>
<td><code>payerAuthValidateReply_commerceIndicator</code></td>
</tr>
<tr>
<td>■ <code>aesk</code>: Successful AESK transaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ <code>aesk_attempted</code>: AESK transaction was attempted but not authenticated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>XID</strong>—transaction identifier. This value is optional.</td>
<td><code>ccAuthService_xid</code></td>
<td><code>payerAuthValidateReply_xid</code></td>
</tr>
</tbody>
</table>
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
  - Habib Bank Ltd (HBL)
  - HDFC Bank Ltd of India
  - 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


## 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 221.
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 58  Processors That Support Recurring Payments**

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Visa, MasterCard, Maestro (International)</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>American Express</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Asia, Middle East, and Africa Gateway</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB</td>
</tr>
</tbody>
</table>
### Table 58  Processors That Support Recurring Payments (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atos</td>
<td>Visa, MasterCard</td>
<td>Before processing recurring payments on Atos, you must:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Contact your acquirer to ensure that you are permitted to accept recurring transactions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Contact Atos to have your account configured to accept recurring transactions.</td>
</tr>
<tr>
<td>Barclays</td>
<td>Visa, MasterCard, JCB</td>
<td></td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard, American Express, Discover</td>
<td></td>
</tr>
<tr>
<td>Cielo</td>
<td>Visa, MasterCard, American Express, Diners Club, Discover, JCB, Maestro (International), Elo, Aura</td>
<td>On Cielo, recurring payments are not supported for debit transactions.</td>
</tr>
<tr>
<td>Comercio Latino</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB, Elo, Aura, Hipercard</td>
<td>If you are processing transactions in Mexico, you must include the <code>billTo_customerID</code> 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:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Banorte—must be submitted as an auto capture. See &quot;Auto Captures,&quot; page 32.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cielo</td>
</tr>
</tbody>
</table>
Table 58  Processors That Support Recurring Payments (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Discover</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>Not all card types are supported for all acquirers.</td>
</tr>
<tr>
<td></td>
<td>The supported acquirers are:</td>
</tr>
<tr>
<td>• Arab African International Bank (AAIB)</td>
<td></td>
</tr>
<tr>
<td>• Asia Commercial Bank (ACB)</td>
<td></td>
</tr>
<tr>
<td>• Auckland Savings Bank (ASB)</td>
<td></td>
</tr>
<tr>
<td>• Australia and New Zealand Banking Group Limited (ANZ)</td>
<td></td>
</tr>
<tr>
<td>• Axis Bank Ltd of India</td>
<td></td>
</tr>
<tr>
<td>• Banco Nacional de México (Banamex)</td>
<td></td>
</tr>
<tr>
<td>• Bank Muscat of Oman</td>
<td></td>
</tr>
<tr>
<td>• Bank of Ayudhya (BAY)</td>
<td></td>
</tr>
<tr>
<td>• Bank of China (BOC)</td>
<td></td>
</tr>
<tr>
<td>• Banque Pour Le Commerce Exterieur Lao (BCEL)</td>
<td></td>
</tr>
<tr>
<td>• CitiBank Singapore LTD</td>
<td></td>
</tr>
<tr>
<td>• Commercial Bank of Qatar</td>
<td></td>
</tr>
<tr>
<td>• CrediMax (Bahrain)</td>
<td></td>
</tr>
<tr>
<td>• CTBC Bank Ltd.</td>
<td></td>
</tr>
<tr>
<td>• Global Payment Asia Pacific</td>
<td></td>
</tr>
<tr>
<td>• Habib Bank Ltd (HBL)</td>
<td></td>
</tr>
<tr>
<td>• HDFC Bank Ltd of India</td>
<td></td>
</tr>
<tr>
<td>• I&amp;M Bank</td>
<td></td>
</tr>
<tr>
<td>• ICICI of India</td>
<td></td>
</tr>
<tr>
<td>• Mashreq</td>
<td></td>
</tr>
<tr>
<td>• National Bank of Abu Dhabi (NBAD)</td>
<td></td>
</tr>
<tr>
<td>• National Bank of Kuwait (NBK)</td>
<td></td>
</tr>
<tr>
<td>• Overseas Chinese Banking Corp (OCBC)</td>
<td></td>
</tr>
<tr>
<td>• Qatar National Bank (QNB Group)</td>
<td></td>
</tr>
<tr>
<td>• Vantiv</td>
<td></td>
</tr>
<tr>
<td>• Vietcombank</td>
<td></td>
</tr>
<tr>
<td>• VietinBank</td>
<td></td>
</tr>
<tr>
<td>• Westpac</td>
<td></td>
</tr>
<tr>
<td>• Wing Hang Bank</td>
<td></td>
</tr>
<tr>
<td>• Wing Lung Bank</td>
<td></td>
</tr>
<tr>
<td>Elavon</td>
<td>Visa, MasterCard, Maestro (UK), Diners Club</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
</tbody>
</table>
### Table 58  Processors That Support Recurring Payments (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI Australia</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard, Discover</td>
</tr>
<tr>
<td></td>
<td>On FDMS South, recurring payments are not supported for the CAD currency on the Visa card type.</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>GPN</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>HBoS</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>HSBC</td>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
</tr>
<tr>
<td></td>
<td>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 <a href="#">Contact Us</a> link: <a href="http://www.cybersource.com">www.cybersource.com</a></td>
</tr>
<tr>
<td>Ingenico ePayments</td>
<td>Visa, MasterCard, American Express, Carte Bleue</td>
</tr>
<tr>
<td>Litle</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>Moneris</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
<tr>
<td>OmniPay Direct</td>
<td>First Data Merchant Solutions (Europe): Visa, MasterCard, Discover, Diners Club</td>
</tr>
<tr>
<td></td>
<td>Global Payments International Acquiring: Visa, MasterCard</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td></td>
<td>OmniPay-Ireland is the CyberSource name for HSBC International.</td>
</tr>
<tr>
<td></td>
<td>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 <a href="#">Contact Us</a> link: <a href="http://www.cybersource.com">www.cybersource.com</a></td>
</tr>
<tr>
<td>RBS WorldPay Atlanta</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club, JCB</td>
</tr>
<tr>
<td>Streamline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>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 <a href="#">Contact Us</a> link: <a href="http://www.cybersource.com">www.cybersource.com</a></td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Visa, MasterCard, American Express, Discover</td>
</tr>
</tbody>
</table>
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.

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`

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.

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.
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
```

---

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 189, and "Recurring Billing," page 192.

---

**AVS and Recurring Payments**

---

**Note**

FDMS Nashville does not support AVS for recurring payments.

---

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 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.

---

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*.

---

**Replacement Expiration Dates for Recurring Payments**

**Service:**

- Authorization

**Processors and card types:**

- See the following table.

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>Visa, MasterCard, Maestro (International)</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td>You must contact American Express Brighton to get approval for using replacement expiration dates before using this feature.</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>American Express</td>
</tr>
<tr>
<td>Barclays</td>
<td>Visa, MasterCard, JCB</td>
</tr>
</tbody>
</table>
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.

### Table 59 Processors That Support Replacement Expiration Dates for Recurring Payments (Continued)

<table>
<thead>
<tr>
<th>Processors</th>
<th>Credit Card Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chase Paymentech Solutions</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>Visa, MasterCard, American Express, Diners Club, JCB, Discover</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> Not all card types are supported for all acquirers.</td>
</tr>
<tr>
<td></td>
<td>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 33, &quot;Processors That Support Installment Payments,&quot; on page 122.</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Visa, MasterCard, American Express, Discover, Diners Club</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDI Australia</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>HBoS</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>HSBC</td>
<td>Visa, MasterCard, Maestro (International)</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td></td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Visa, MasterCard</td>
</tr>
<tr>
<td>Streamline</td>
<td>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 <strong>Contact Us</strong> link: <a href="http://www.cybersource.com">www.cybersource.com</a></td>
</tr>
</tbody>
</table>

**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.
CyberSource supports the following replacement expiration dates:

- **12/2021**
- **12/2099**—This date is supported only for the processors listed in Table 60.

To use the 12/2021 date, include these fields and values in your authorization request:

```plaintext
card_expirationMonth=12
card_expirationYear=2021
```

To use the 12/2099 date, include these fields and values in your authorization request:

```plaintext
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 60 Processors that Support the 12/2099 Replacement Expiration Date

<table>
<thead>
<tr>
<th>Processor</th>
<th>Month and Year 12/2099 Replacement Expiration Date Is Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIBMS</td>
<td>October 2014</td>
</tr>
<tr>
<td>American Express Brighton</td>
<td>October 2014</td>
</tr>
<tr>
<td>American Express Direct</td>
<td>October 2014</td>
</tr>
<tr>
<td>Barclays</td>
<td>October 2014</td>
</tr>
<tr>
<td>Chase Paymentech Solutions</td>
<td>August 2014</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>August 2014</td>
</tr>
<tr>
<td>FDC Germany</td>
<td>October 2014</td>
</tr>
<tr>
<td>FDMS South</td>
<td>October 2014</td>
</tr>
<tr>
<td>HSBC</td>
<td>October 2014</td>
</tr>
<tr>
<td>HSBC is the CyberSource name for HSBC U.K.</td>
<td></td>
</tr>
<tr>
<td>HBoS</td>
<td>October 2014</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>October 2014</td>
</tr>
</tbody>
</table>
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


### 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.
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 61 Determining Which Report Group Value to Use

<table>
<thead>
<tr>
<th>Kind of Request</th>
<th>Report Group Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization or</td>
<td>CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds:</td>
</tr>
<tr>
<td>Stand-Alone Credit</td>
<td>- <strong>reportGroup</strong> field in the authorization or stand-alone credit request&lt;br&gt;- 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.&lt;br&gt;- Your Litle merchant ID</td>
</tr>
<tr>
<td>Capture or</td>
<td>CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds:</td>
</tr>
<tr>
<td>Full Authorization</td>
<td>- <strong>reportGroup</strong> field in the capture or full authorization reversal request&lt;br&gt;- Report group value that was used for the authorization request</td>
</tr>
<tr>
<td>Reversal</td>
<td></td>
</tr>
<tr>
<td>Follow-on Credit</td>
<td>CyberSource checks the following locations, in the order given, for a report group value and uses the first value it finds:</td>
</tr>
<tr>
<td></td>
<td>- <strong>reportGroup</strong> field in the follow-on credit request&lt;br&gt;- Report group value that was used for the capture that is being credited&lt;br&gt;- Report group value that was used for the authorization request</td>
</tr>
</tbody>
</table>

### Retail POS Data

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

### Secure Data

See "Payment Tokenization," page 189.
Service Fees

See *Service Fee Processing Using the Simple Order API*.

Soft Descriptors

See "Merchant Descriptors," page 133.

Split Dial/Route

See "Forced Captures," page 120.

Split Shipments

**Services:**
- Authorization
- Capture

**Processors:**
- CyberSource through VisaNet

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.
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 scenarios that use an additional authorization, see the following sections:

- "One Authorization and One Sale," page 206
- "Two Authorizations and One Capture," page 208

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 56.
- 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 examples that use an additional authorization, see:
- Name-value pair examples: "Split Shipment Examples," page 324
- XML examples: "Split Shipment Examples," page 347

**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 116.

For scenarios that use an additional capture, see the following sections:
- "One Authorization and Two Captures," page 207
- "Multiple Captures in a Batch File," page 207

For examples that use an additional capture, see:
- Name-value pair examples: "Split Shipment Examples," page 324
- XML examples: "Split Shipment Examples," page 347
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.

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.
   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.

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 62 Methods for Obtaining the Status of a System-Generated Authorization

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Center</td>
<td>Use the capture request ID to search for the second capture. The details for all related transactions are displayed on the <strong>Transaction Search Details</strong> page. It can take a maximum of six hours for the status of the system-generated authorization request to be available.</td>
</tr>
<tr>
<td>On-Demand Single Transaction Report</td>
<td>This report is described in the <em>Reporting Developer Guide</em>. You must use version 1.3 or later and include the parameter <strong>includeExtendedDetail</strong> in your query. It can take a maximum of six hours for the status of the system-generated authorization request to be available.</td>
</tr>
<tr>
<td>Transaction Exception Detail Report</td>
<td>This report is described in the <em>Reporting Developer Guide</em>. CyberSource recommends that you use this report on a daily basis to identify transactions that have been declined.</td>
</tr>
</tbody>
</table>
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 221.

For examples of split shipment requests and replies, see:
- Name-value pair examples: "Split Shipment Examples," page 324
- XML examples: "Split Shipment Examples," page 347

Subscriptions


Tokenization

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.


Type II Cards

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

Verbal Authorizations

See "Verbal Authorizations," page 82.
Verified by Visa


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 33
- "Visa Checkout Examples," page 330 (NVP)
- "Visa Checkout Examples," page 358 (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>
<thead>
<tr>
<th>Processor</th>
<th>AVS</th>
<th>CVN</th>
<th>Card Types and Notes</th>
</tr>
</thead>
</table>
| 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>
<thead>
<tr>
<th>Processor</th>
<th>AVS</th>
<th>CVN</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elavon</td>
<td>Yes</td>
<td>Yes</td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Maestro (International)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>All currencies that are supported for standard authorizations for Elavon are also supported for zero amount authorizations.</td>
</tr>
<tr>
<td>FDC Compass</td>
<td>Yes</td>
<td>Yes</td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Diners Club</td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>Yes</td>
<td></td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Discover</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Diners Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For a zero amount authorization on FDC Nashville Global:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- For Visa, MasterCard, and American Express, all currencies that are supported for standard authorizations are also supported for zero amount authorizations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- For Discover and Diners Club, only USD is supported for zero amount authorizations.</td>
</tr>
<tr>
<td>FDMS Nashville</td>
<td>Yes</td>
<td>Yes</td>
<td>- Visa</td>
</tr>
<tr>
<td>FDMS South</td>
<td>Yes</td>
<td></td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Diners Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Discover</td>
</tr>
<tr>
<td>GPN</td>
<td>Yes</td>
<td></td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- American Express: CVN is not supported for zero amount authorizations with American Express.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Discover</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- JCB</td>
</tr>
</tbody>
</table>

Table 63  Processors That Support Zero Amount Authorizations (Continued)
<table>
<thead>
<tr>
<th>Processor</th>
<th>AVS</th>
<th>CVN</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBoS</td>
<td>Yes</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For zero amount authorizations on HBoS, the commerce indicator must be internet or moto.</td>
</tr>
<tr>
<td>HSBC</td>
<td>Yes</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ Maestro (International)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For zero amount authorizations on HSBC:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ The commerce indicator must be internet or moto.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ The authorization code is not returned.</td>
</tr>
<tr>
<td>JCN Gateway</td>
<td>No</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ Diners Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ JCB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ NICOS house card</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ ORICO house card</td>
</tr>
<tr>
<td>Litle</td>
<td>Yes</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ Discover</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ Diners Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ JCB</td>
</tr>
<tr>
<td>Lloyds-OmniPay</td>
<td>Yes</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For zero amount authorizations on Lloyds-OmniPay, the commerce indicator must be internet or moto.</td>
</tr>
<tr>
<td>LloydsTSB Cardnet</td>
<td>Yes</td>
<td>Yes</td>
<td>■ Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>■ MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For zero amount authorizations on LloydsTSB Cardnet, the commerce indicator must be internet or moto.</td>
</tr>
</tbody>
</table>
### Table 63  Processors That Support Zero Amount Authorizations (Continued)

<table>
<thead>
<tr>
<th>Processor</th>
<th>AVS</th>
<th>CVN</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moneris</td>
<td>Yes</td>
<td>Yes</td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MasterCard</td>
</tr>
<tr>
<td>OmniPay Direct</td>
<td>Yes</td>
<td>Yes</td>
<td>First Data Merchant Solutions (Europe):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Discover</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diners Club</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maestro (International)</td>
</tr>
<tr>
<td>Global Payments International Acquiring:</td>
<td></td>
<td></td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maestro (International)</td>
</tr>
<tr>
<td>OmniPay-Ireland</td>
<td>Yes</td>
<td>Yes</td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MasterCard</td>
</tr>
<tr>
<td>OmniPay-Ireland is the CyberSource name for HSBC International.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RBS WorldPay Atlanta</td>
<td>Yes</td>
<td>Yes</td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diners Club</td>
</tr>
</tbody>
</table>
Chapter 5  Optional Features

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.

<table>
<thead>
<tr>
<th>Processor</th>
<th>AVS</th>
<th>CVN</th>
<th>Card Types and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streamline</td>
<td>Yes</td>
<td>Yes</td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Maestro (International)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Maestro (UK Domestic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Carte Bleue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Dankort</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>All currencies that are supported for standard authorizations for Streamline are also supported for zero amount authorizations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For a zero amount authorization:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- The commerce indicator must be internet or moto.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Payer authentication is not supported.</td>
</tr>
<tr>
<td>TSYS Acquiring Solutions</td>
<td>Yes</td>
<td>Yes</td>
<td>- Visa</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- MasterCard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- American Express: CVN is not supported for zero amount authorizations with American Express.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Discover: CVN is not supported for zero amount authorizations with Discover.</td>
</tr>
</tbody>
</table>

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

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 64, "Test Credit Card Numbers," on page 219.
- 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.

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
With 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 64  Test Credit Card Numbers

<table>
<thead>
<tr>
<th>Credit Card Type</th>
<th>Test Account Number (Remove spaces when sending to CyberSource.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Express</td>
<td>3782 8224 6310 005</td>
</tr>
<tr>
<td>Discover</td>
<td>6011 1111 1111 1117</td>
</tr>
<tr>
<td>JCB</td>
<td>3566 1111 1111 1113</td>
</tr>
<tr>
<td>Maestro (International)</td>
<td>5033 9619 8909 17</td>
</tr>
<tr>
<td>Maestro (UK Domestic)</td>
<td>6759 4111 0000 0008</td>
</tr>
<tr>
<td></td>
<td>Note Effective May 2011, the issue number is no longer required for Maestro (UK Domestic) transactions.</td>
</tr>
<tr>
<td>MasterCard</td>
<td>5555 5555 5555 4444</td>
</tr>
<tr>
<td>UATP</td>
<td>1354 1234 5678 911</td>
</tr>
<tr>
<td>Visa</td>
<td>4111 1111 1111 1111</td>
</tr>
</tbody>
</table>
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.
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.

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integer</td>
<td>Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}</td>
</tr>
<tr>
<td>String</td>
<td>Sequence of letters, numbers, spaces, and special characters</td>
</tr>
</tbody>
</table>
## 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.

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 189, and "Recurring Billing," page 192.

### Table 65 Request Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>authIndicator</td>
<td>Flag that specifies the purpose of the authorization. Possible values:</td>
<td>ccAuthService (Optional for MasterCard and Maestro transactions; not used for other card types)</td>
<td>String (1)</td>
</tr>
<tr>
<td></td>
<td>- 0: Preauthorization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1: Final authorization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To set the default for this field, contact CyberSource Customer Support.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barclays and Elavon</td>
<td>The default for Barclays and Elavon is 1 (final authorization). To change the default for this field, contact CyberSource Customer Support.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>balancelInquiry</td>
<td>Flag that indicates whether to return balance information. See &quot;Balance Inquiries,&quot; page 107.</td>
<td>ccAuthService (Required for a balance inquiry; otherwise, not used.)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- true</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- false</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 72. **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 networks.
Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_company</td>
<td>Name of the customer’s company. <em>CyberSource through VisaNet</em></td>
<td>ccAuthService (O)</td>
<td>String (60)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>ccCaptureService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccCreditService (O)</td>
<td></td>
</tr>
<tr>
<td>billTo_country</td>
<td>Country of the billing address. Use the two-character <em>ISO Standard Country Codes</em>. <em>CyberSource through VisaNet</em> 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.</td>
<td>ccAuthService (R)²</td>
<td>String (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccCaptureService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccCreditService (R)¹,²</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
## Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 72. **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 networks.
### Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_email</td>
<td>Customer’s email address, including the full domain name.</td>
<td>ccAuthService (R)² ccCaptureService (O)</td>
<td>String (255)</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong> 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.</td>
<td>ccCreditService (R)¹,² ccDCCService (O)</td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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)<sup>2</sup>  
ccCaptureService (O)  
ccCreditService (R)<sup>1,2</sup>  
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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_hostname</td>
<td>DNS resolved hostname from billTo_ipAddress.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (60)</td>
</tr>
<tr>
<td>billTo_httpBrowserType</td>
<td>Customer’s browser as identified from the HTTP header data. For example, Mozilla is the value that identifies the Netscape browser.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (40)</td>
</tr>
<tr>
<td>billTo_ipAddress</td>
<td>Customer’s IP address.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (15)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_lastName</td>
<td>Customer’s last name. This name must be the same as the name on the card.</td>
<td>ccAuthService (R)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>CyberSource Latin American Processing: see field description</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource Latin American Processing</strong></td>
<td>ccCaptureService (O)</td>
<td>Litle: String (25)</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> 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.</td>
<td>ccCreditService (R)&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>All other processors: String (60)</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> 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.</td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong> 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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.
### Appendix A  API Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_personalID</td>
<td>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. <strong>Note</strong> 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.</td>
<td>ccAuthService (See the field description.)</td>
<td>String (26)</td>
</tr>
<tr>
<td>billTo_phoneNumber</td>
<td>Customer’s phone number. CyberSource recommends that you include the country code when the order is from outside the U.S. <strong>CyberSource through VisaNet</strong> 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.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O) ccDCCService (O)</td>
<td>String (15)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65  Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_postalCode</td>
<td>Postal code for the billing address. The postal code must consist of 5 to 9 digits.</td>
<td>ccAuthService (Required when the billing country is the U.S. or Canada; otherwise, optional.)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Comercio Latino and CyberSource through VisaNet: String (9)</td>
</tr>
<tr>
<td></td>
<td>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</td>
<td>ccCaptureService (O)</td>
<td>All other processors: String (10)</td>
</tr>
<tr>
<td></td>
<td>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</td>
<td>ccCreditService (Required when the billing country is the U.S. or Canada; otherwise, optional.)&lt;sup&gt;1&lt;/sup&gt;,&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>American Express Direct</td>
<td>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.</td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
<tr>
<td>Atos</td>
<td>This field must not contain colons (:).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CyberSource through VisaNet</td>
<td>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.</td>
<td></td>
<td></td>
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</table>

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 72. 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 networks.
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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 72. 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 networks.
Table 65 Request Fields (Continued)

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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_street1</td>
<td>First line of the billing street address as it appears on the credit card issuer’s records.</td>
<td>ccAuthService (R)²</td>
<td>Atos: String (29)</td>
</tr>
<tr>
<td></td>
<td>Atos</td>
<td>ccCaptureService (O)</td>
<td>CyberSource through VisaNet: String (40)</td>
</tr>
<tr>
<td></td>
<td>This field must not contain colons (:).</td>
<td>ccCreditService (R)¹,²</td>
<td>Litle: String (35)</td>
</tr>
<tr>
<td></td>
<td>CyberSource through VisaNet</td>
<td></td>
<td>Moneris: String (50)</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> 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.</td>
<td></td>
<td>All other processors: String (60)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65  Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>billTo_street2</td>
<td>Additional address information. Example: Attention: Accounts Payable</td>
<td>ccAuthService (O) ccCaptureService (O)</td>
<td>Atos: String (29)</td>
</tr>
<tr>
<td></td>
<td><strong>Atos</strong> This field must not contain colons (:).</td>
<td>ccCreditService (O)</td>
<td>CyberSource through VisaNet: String (40)</td>
</tr>
<tr>
<td></td>
<td><strong>Chase Paymentech Solutions, FDC Compass, and TSYS Acquiring Solutions</strong></td>
<td></td>
<td>Little: String (35)</td>
</tr>
<tr>
<td></td>
<td>This value is used for AVS.</td>
<td></td>
<td>Moneris: String (50)</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td></td>
<td>All other processors: String (60)</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong> 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.</td>
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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 72. **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 networks.
### Table 65 Request Fields (Continued)

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<tr>
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>businessRules_declineAVSFlags</td>
<td>List of AVS flags that cause the request to be declined for AVS reasons. Use a space to separate the flags in the list. <strong>Important</strong> To receive declines for the AVS code N, include the value N in the list.</td>
<td>ccAuthService (O)</td>
<td>String (255)</td>
</tr>
</tbody>
</table>
| businessRules_ignoreAVSError | 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 72. **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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_accountEncoderID</td>
<td>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 115.</td>
<td>ccAuthService (Required when processing encoded account numbers; otherwise, not used.) ccCreditService (Required when processing encoded account numbers; otherwise, not used.)</td>
<td>String (3)</td>
</tr>
<tr>
<td>card_accountNumber</td>
<td>Customer’s credit card number.</td>
<td>ccAuthService (R) ccCreditService (R)</td>
<td>String with numbers only (20)</td>
</tr>
<tr>
<td></td>
<td><strong>Encoded Account Numbers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When processing encoded account numbers, use this field for the encoded account number.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>DCC for First Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set this to the first 6 to 10 digits of the credit card number.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>card_cardType</td>
<td>Type of card to authorize. See Appendix F, “Card Types,” on page 368 for a list of valid values. To see which cards can be handled by each processor, see &quot;Payment Processors,&quot; page 25.</td>
<td>ccAuthService ccCreditService</td>
<td>String (3)</td>
</tr>
</tbody>
</table>

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 72. 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 networks.
### Table 65 Request Fields (Continued)

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<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_cvIndicator</td>
<td>Flag that indicates whether a CVN code was sent. Possible values:</td>
<td>ccAuthService (O)</td>
<td>String with numbers only (1)</td>
</tr>
<tr>
<td></td>
<td>- 0 (default): CVN service not requested. CyberSource uses this default value when you do not include <code>card_cvNumber</code> in the request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 (default): CVN service requested and supported. CyberSource uses this default value when you include <code>card_cvNumber</code> in the request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2: CVN on credit card is illegible.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 9: CVN was not imprinted on credit card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>card_cvNumber</td>
<td>CVN. See &quot;Card Verification Numbers (CVNs),&quot; page 78, for a list of processors that support CVN.</td>
<td>ccAuthService (O)</td>
<td>String with numbers only (4)</td>
</tr>
</tbody>
</table>

**Ingenico ePayments**

Do not include this field when `ccAuthService_commerceIndicator=recurring`.

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

---

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 72. **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 networks.
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<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_expirationMonth</td>
<td>Two-digit month in which the credit card expires.</td>
<td>ccAuthService (R)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>String (2)</td>
</tr>
<tr>
<td></td>
<td>Format: MM.</td>
<td>ccCreditService (R)&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possible values: 01 through 12.</td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
</tbody>
</table>

**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.

---

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 72. **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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_expirationYear</td>
<td>Four-digit year in which the credit card expires. Format: YYYY.</td>
<td>ccAuthService (R)^2</td>
<td>FDC Nashville Global and FDMS South: String (See description)</td>
</tr>
<tr>
<td></td>
<td><strong>Barclays and Streamline</strong></td>
<td>ccCreditService (R)^{1,2}</td>
<td>All other processors: String (4)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FDC Nashville Global and FDMS South</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Encoded Account Numbers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For encoded account numbers (card_cardType=039), if there is no expiration date available, use 2021.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>card_issueNumber</td>
<td>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. <strong>Note</strong> The issue number is not required for Maestro (UK Domestic) transactions.</td>
<td>ccAuthService (O)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>ccCreditService (O)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_startMonth</td>
<td>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. <strong>Note</strong> The start date is not required for Maestro (UK Domestic) transactions.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>card_startYear</td>
<td>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. <strong>Note</strong> The start date is not required for Maestro (UK Domestic) transactions.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (4)</td>
</tr>
<tr>
<td>ccAuthReversalService_authRequestID</td>
<td>Request ID for the authorization that you want to reverse.</td>
<td>ccAuthReversalService (R)</td>
<td>String (26)</td>
</tr>
<tr>
<td>ccAuthReversalService_authRequestToken</td>
<td>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.</td>
<td>ccAuthReversalService (O)</td>
<td>String (256)</td>
</tr>
<tr>
<td>ccAuthReversalService_reversalReason</td>
<td>Reason for the authorization reversal. Possible value: 34: Suspected fraud</td>
<td>ccAuthReversalService (O)</td>
<td>String (3)</td>
</tr>
<tr>
<td></td>
<td>CyberSource ignores this field for processors that do not support this value.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.
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## Appendix A

### API Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReversalService_run</td>
<td>Whether to include <strong>ccAuthReversalService</strong> in your request. Possible values:</td>
<td>ccAuthReversal Service (R)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td><strong>true</strong>: Include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>false</strong> (default): Do not include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccAuthService_aggregatorID</td>
<td>Value that identifies you as a payment aggregator. Get this value from the processor.</td>
<td>ccAuthService</td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td>See &quot;Aggregator Support,&quot; page 98.</td>
<td></td>
<td>Direct: String (20)</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td></td>
<td>CyberSource through VisaNet: String (11)</td>
</tr>
<tr>
<td></td>
<td>The value for this field corresponds to the following data in the TC 33 capture file⁵:</td>
<td></td>
<td>FDC Compass: String (20)</td>
</tr>
<tr>
<td></td>
<td><strong>Record</strong>: CP01 TCR6</td>
<td></td>
<td>FDC Nashville Global: String (15)</td>
</tr>
<tr>
<td></td>
<td><strong>Position</strong>: 95-105</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Field</strong>: MasterCard Payment Facilitator ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This value must consist of upper-case characters.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65  Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: (Required (R) or Optional (O))</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_</td>
<td>Your payment aggregator business name. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ics_auth</td>
<td>American Express</td>
</tr>
<tr>
<td>aggregatorName</td>
<td></td>
<td>ics_bill</td>
<td>Direct: String (37)</td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong></td>
<td>ics_credit</td>
<td>FDC</td>
</tr>
<tr>
<td></td>
<td>This value must consist of upper-case characters.</td>
<td></td>
<td>American Express</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Direct: String (37)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDC Compass:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>String (37)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nashville Global:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>String (12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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*.
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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 networks.
## Appendix A
### API Fields

### ccAuthService_authType
Authorization type. Possible values:
- **AUTOCAPTURE**: auto capture; see "Auto Captures," page 32.
- **STANDARDCAPTURE**: standard capture; see "Auto Captures," page 32.
- **VERBAL**: forced capture; see "Forced Captures," page 120.

**Cielo and Comercio Latino**
Set this field to **AUTOCAPTURE** and include it in the authorization request to indicate that you are requesting an auto capture, which is a bundled authorization and capture request. For more information, see the entry for Cielo or Comercio Latino in Table 11, "Authorization Information for Specific Processors," on page 35 and "Auto Captures," page 32.

**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 120.

### ccAuthService_billPayment
Flag that indicates that this is a payment for a bill or for an existing contractual loan. See "Visa Bill Payments," page 211, and "Visa Debt Repayments," page 212, 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.

---

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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_capturedDate</td>
<td>Date on which you want the capture to occur. This field is supported only for CyberSource through VisaNet. Format: MMDD</td>
<td>ccAuthService (O)</td>
<td>String (4)</td>
</tr>
<tr>
<td>ccAuthService_cavv</td>
<td>Cardholder authentication verification value (CAVV). For the description and requirements, see &quot;Payer Authentication,&quot; page 174.</td>
<td>ccAuthService</td>
<td>String (40)</td>
</tr>
<tr>
<td>ccAuthService_cavvAlgorithm</td>
<td>Algorithm used to generate the CAVV for Verified by Visa or the UCAF authentication data for MasterCard SecureCode. For the description and requirements, see &quot;Payer Authentication,&quot; page 174.</td>
<td>ccAuthService</td>
<td>String (1)</td>
</tr>
</tbody>
</table>
| 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 174.  
**Other Types of Transactions**  
See Appendix G, "Commerce Indicators," on page 370. | 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 174. | 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 72. **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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_firstRecurringPayment</td>
<td>Flag that indicates whether this transaction is the first in a series of recurring payments. See &quot;Recurring Payments,&quot; page 192. This field is supported only for Atos, FDC Nashville Global, and OmniPay Direct.</td>
<td>ccAuthService (O)</td>
<td>String (5)</td>
</tr>
</tbody>
</table>

**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.

---

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 72. 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 networks.
### Table 65  Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_overridePaymentMethod</td>
<td>Flag that specifies the type of account associated with the card. The cardholder provides this information during the payment process.</td>
<td>ccAuthService (O)</td>
<td>String (2)</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>ccAuthService</th>
<th>String (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthService_paresStatus</td>
<td>Payer authentication response status. For the description and requirements, see &quot;Payer Authentication,&quot; page 174.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
## API Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| ccAuthService_partialAuthIndicator | Flag that indicates 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 86. | 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 120. | 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 174. | ccAuthService | String (1) |
| ccAuthService_xid | Transaction identifier. For the description and requirements, see "Payer Authentication," page 174. | 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 72. 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 networks.
Table 65  Request Fields (Continued)

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<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccCaptureService_aggregatorID</td>
<td>Value that identifies you as a payment aggregator. Get this value from the processor. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccCaptureService</td>
<td>String</td>
</tr>
</tbody>
</table>
|                        | **FDC Compass**  

This value must consist of upper-case characters.  
**Field Length**  

American Express Direct: 20  
FDC Compass: 20  
FDC Nashville Global: 15  
**Required/Optional**  

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.  
| ccCaptureService_aggregatorName | Your payment aggregator business name. See "Aggregator Support," page 98. | ccCaptureService                        | String             |
|                                | **FDC Compass**  

This value must consist of upper-case characters.  
**Field Length**  

American Express Direct: 37  
FDC Compass: 37  
FDC Nashville Global: 12  
**Required/Optional**  

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.  

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 72. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.  
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<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccCaptureService_authRequestID</td>
<td>Value of the request ID returned from a previous ccAuthReply.</td>
<td>ccCaptureService Required unless ccAuthService and ccCaptureService are both called in the same request.</td>
<td>String (26)</td>
</tr>
<tr>
<td>ccCaptureService_authRequestToken</td>
<td>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.</td>
<td>ccCaptureService (Required for Atos; otherwise, optional.)</td>
<td>String (256)</td>
</tr>
<tr>
<td>ccCaptureService_authType</td>
<td>Authorization type. When the transaction contains a verbally authorized transaction, this field must contain the value VERBAL.</td>
<td>ccCaptureService (O)</td>
<td>String (6)</td>
</tr>
<tr>
<td>ccCaptureService_dpdeBillingMonth</td>
<td>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.</td>
<td>ccCaptureService (O)</td>
<td>String (4)</td>
</tr>
</tbody>
</table>

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 72. 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 networks.
### Table 65 Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 82. | 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 72. **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 networks.
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<tbody>
<tr>
<td>ccCaptureService_sequence</td>
<td>Capture number when requesting multiple partial captures for one authorization. Used along with <code>ccCaptureService_totalCount</code> to track which capture is being processed. For example, the second of five captures would be passed to CyberSource as <code>ccCaptureService_sequence = 2</code> and <code>ccCaptureService_totalCount = 5</code>. See &quot;Special Request Fields for Multiple Partial Captures,&quot; page 57.</td>
<td>ccCaptureService (Required for multiple captures on Barclays and TSYS Acquiring Solutions. Optional for multiple captures on FDC Compass and OmniPay Direct. Otherwise, not used.)</td>
<td>Integer (2)</td>
</tr>
<tr>
<td>ccCaptureService_totalCount</td>
<td>Total number of captures when requesting multiple partial captures for one authorization. Used along with <code>ccCaptureService_sequence</code> to track which capture is being processed. For example, the second of five captures would be passed to CyberSource as <code>ccCaptureService_sequence = 2</code> and <code>ccCaptureService_totalCount = 5</code>. See &quot;Special Request Fields for Multiple Partial Captures,&quot; page 57.</td>
<td>ccCaptureService (Required for multiple captures on Barclays and TSYS Acquiring Solutions. Optional for multiple captures on FDC Compass and OmniPay Direct. Otherwise, not used.)</td>
<td>Integer (2)</td>
</tr>
</tbody>
</table>
| 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 `0000000000000000` (15 zeros). See "Verbal Authorizations," page 82, 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 72. **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 networks.
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</tr>
</thead>
<tbody>
<tr>
<td>ccCaptureService_</td>
<td>Verbally received authorization code.</td>
<td>ccCaptureService (O)</td>
<td>CCS (CAFIS): String (7)</td>
</tr>
<tr>
<td>verbalAuthCode</td>
<td></td>
<td></td>
<td>JCN Gateway: String (7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>All other processors: String (7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccCreditService_</td>
<td>Value that identifies you as a payment aggregator. Get this value from the processor. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccCreditService For R/O information, see description.</td>
<td>String For field length, see description.</td>
</tr>
<tr>
<td>aggregatorID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong> This value must consist of upper-case characters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Field Length</strong> American Express Direct: 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Compass: 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Nashville Global: 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Required/Optional</strong> American Express Direct: R for all aggregator transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CyberSource through VisaNet: not used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Compass: R for all aggregator transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Nashville Global: R for all aggregator transactions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
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</thead>
<tbody>
<tr>
<td>ccCreditService_</td>
<td>Your payment aggregator business name. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccCreditService</td>
<td>String</td>
</tr>
<tr>
<td>aggregatorName</td>
<td>FDC Compass This value must consist of upper-case characters.</td>
<td>For R/O information, see description.</td>
<td>For field length, see description.</td>
</tr>
<tr>
<td>Field Length</td>
<td>American Express Direct: 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Compass: 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Nashville Global: 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required/Optional</td>
<td>American Express Direct: R for all aggregator transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CyberSource through VisaNet: not used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Compass: R for MasterCard aggregator transactions; otherwise, not used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FDC Nashville Global: R for all aggregator transactions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccCreditService_</td>
<td>Flag that indicates whether this is a credit for a bill that the customer</td>
<td>ccCreditService (O)</td>
<td>String (5)</td>
</tr>
<tr>
<td>billPayment</td>
<td>paid with a Visa card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See &quot;Visa Bill Payments,&quot; page 211, for a list of processors that support</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bill payments with Visa. This value is case sensitive. Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• true: Credit for a bill payment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• false (default): Not a credit for a bill payment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccCreditService_</td>
<td>Value of the request ID returned from a previous request for ccCaptureService.</td>
<td>ccCreditService (O)</td>
<td>String (26)</td>
</tr>
<tr>
<td>captureRequestID</td>
<td>Creates a follow-on credit by linking the credit to the previous capture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When you send this field, you do not need to send several other credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>request fields. See &quot;Crediting a Payment,&quot; page 60, for a description of</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>follow-on credits.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Table 65 Request Fields (Continued)

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</tr>
</thead>
<tbody>
<tr>
<td>ccCreditService_captureRequestToken</td>
<td>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.</td>
<td>ccCreditService (Required for Atos; otherwise, optional)</td>
<td>String (256)</td>
</tr>
</tbody>
</table>
| 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 370. | 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 72. **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 networks.
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</tr>
</thead>
<tbody>
<tr>
<td>ccCreditService_run</td>
<td>Whether to include ccCreditService in your request. Possible values:</td>
<td>ccCreditService (R)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>- true: Include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- false (default): Do not include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccDCCService_run</td>
<td><strong>DCC for First Data</strong> Flag that indicates whether ccDCCService must be called for your request. Possible values:</td>
<td>ccDCCService (R)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>- true: The service is included in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- false (default): The service is not included in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dcc_dccIndicator</td>
<td><strong>DCC for First Data</strong> Flag that indicates whether DCC is being used for the transaction. Possible values:</td>
<td>ccAuthService (R if you called the DCC service for the purchase)</td>
<td>String (1)</td>
</tr>
<tr>
<td></td>
<td>- 1: Converted: DCC is being used.</td>
<td>ccCaptureService (R if you called the DCC service for the purchase)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2: Nonconvertible: DCC cannot be used.</td>
<td>ccCreditService (R if you called the DCC service for the purchase)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 3: Declined: DCC could be used, but the customer declined it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For details, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>debtIndicator</td>
<td>Flag that Indicates whether this is a payment towards an existing contractual loan. See &quot;Visa Debt Repayments,&quot; page 212, for a list of processors that support this feature. Possible values:</td>
<td>ccAuthService (O)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>- true: Loan payment</td>
<td>ccCreditService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- false (default): Not a loan payment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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.
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<tr>
<td>extendedCreditTotalCount</td>
<td>Number of months the cardholder can use to 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. <strong>Note</strong> This field is supported only for acquirers in South Africa and only for CyberSource through VisaNet.</td>
<td>ccAuthService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>installment_amount</td>
<td>Amount for the current installment payment. This field is supported only for CyberSource through VisaNet. See “Installment Payments,” page 122.</td>
<td>ccAuthService (O)</td>
<td>String (12)</td>
</tr>
</tbody>
</table>
| 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 122. | 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 72. **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 networks.
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</table>
| installment_planType | **American Express Direct, Cielo, and CyberSource Latin American Processing** Flag that indicates 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 122.  
**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 122. | 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 72. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.  
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</thead>
<tbody>
<tr>
<td>installment_sequence</td>
<td>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 122.</td>
<td>ccAuthService</td>
<td>Integer (2)</td>
</tr>
<tr>
<td></td>
<td><strong>Chase Paymentech Solutions and FDC Compass</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This field is optional because this value is required in the merchant descriptors. See &quot;Chase Paymentech Solutions Merchant Descriptors,&quot; page 138, and &quot;FDC Compass Merchant Descriptors,&quot; page 149.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>installment_totalAmount</td>
<td>Total amount of the loan that is being paid in installments. This field is supported only for CyberSource through VisaNet. See &quot;Installment Payments,&quot; page 122.</td>
<td>ccAuthService (O)</td>
<td>String (12)</td>
</tr>
</tbody>
</table>

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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 72. **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.
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<tbody>
<tr>
<td>installment_totalCount</td>
<td>Total number of installments when making payments in installments. See &quot;Installment Payments,&quot; page 122.</td>
<td>ccauthservice</td>
<td>Integer (2)</td>
</tr>
<tr>
<td>Chase Paymentech Solutions and FDC Compass</td>
<td>This field is optional because this value is required in the merchant descriptors. See &quot;Chase Paymentech Solutions Merchant Descriptors,&quot; page 138, and &quot;FDC Compass Merchant Descriptors,&quot; page 149.</td>
<td>chase paymentech solutions, cybersource Latin American processing, cybersource through visaNet, and FDC Compass: Optional.</td>
<td>All other processors: Required for installment payments.</td>
</tr>
<tr>
<td>American Express Direct, Cielo, and Comercio Latino</td>
<td>This value is the total number of installments you approved. The default is 1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CyberSource Latin American Processing in Brazil</td>
<td>This value is the total number of installments that you approved. The default is 1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Other Processors</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. 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 networks.
### API Fields

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 133.

These fields are frequently used for Level II transactions. See Level II and Level III Processing Using the Simple Order API.

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 72. **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.
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#### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_amexDataTAA1</td>
<td>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 <code>invoiceHeader_amexDataTAA1</code>, then ... TAA2, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (40)</td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_amexDataTAA4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.
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<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_merchantDescriptor</td>
<td>For the descriptions, used-by information, data types, and lengths for these fields, see &quot;Merchant Descriptors,&quot; page 133.</td>
<td>ccAuthService</td>
<td>Nonnegative integer (11)</td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Alternate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor City</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor PostalCode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_merchantDescriptor Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_salesOrganizationID</td>
<td>Company ID assigned to an independent sales organization. Get this value from MasterCard. See &quot;Aggregator Support,&quot; page 98. <strong>CyberSource through VisaNet</strong> The value for this field corresponds to the following data in the TC 33 capture file5:</td>
<td>ccAuthService (Required for MasterCard aggregator transactions on CyberSource through VisaNet; otherwise, not used.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
# Appendix A

## API Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantCity</td>
<td>Sub-merchant’s city. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>American Express Direct: String (15) FDC Compass: String (21) FDC Nashville Global: String (11)</td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong>&lt;br&gt;This value must consist of upper-case characters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>invoiceHeader_submerchantCountry</td>
<td>Sub-merchant’s country. Use the two-character ISO Standard Country Codes. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>String (3)</td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong>&lt;br&gt;This value must consist of upper-case characters.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.

---

FDC Nashville Global: R for all aggregator transactions.
FDC Compass: O for all aggregator transactions.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantEmail</td>
<td>Sub-merchant's email address. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService</td>
<td>American Express Direct: String (40)</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td>ccCaptureService</td>
<td>CyberSource through VisaNet: String (40)</td>
</tr>
<tr>
<td></td>
<td>With American Express, the value for this field corresponds to the following data in the TC 33 capture file:</td>
<td>ccCreditService</td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Record: CP01 TCRB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Position: 25-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Field: American Express Seller E-mail Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Optional for a follow-on credit request, which must include ccCreditService_captureRequestID.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 This field is optional if your CyberSource account is configured for relaxed requirements for address data and expiration date. See &quot;Relaxed Requirements for Address Data and Expiration Date,&quot; page 72. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Required for Visa Checkout transactions. Otherwise, not used.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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 networks.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantID</td>
<td>The ID you assigned to your sub-merchant.  See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>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: String (14)</td>
</tr>
<tr>
<td></td>
<td><em>CyberSource through VisaNet</em> With American Express, the value for this field corresponds to the following data in the TC 33 capture file5:</td>
<td>CyberSource through VisaNet: O for all American Express aggregator transactions; R for all MasterCard aggregator authorizations; otherwise, not used.</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>▪ Record: CP01 TCRB</td>
<td>CyberSource through VisaNet: O for all American Express aggregator transactions; R for all MasterCard aggregator authorizations; otherwise, not used.</td>
<td>CyberSource through VisaNet with American Express: String (20)</td>
</tr>
<tr>
<td></td>
<td>▪ Position: 65-84</td>
<td>CyberSource through VisaNet: O for all American Express aggregator transactions; R for all MasterCard aggregator authorizations; otherwise, not used.</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>▪ Field: American Express Seller ID</td>
<td>CyberSource through VisaNet: O for all American Express aggregator transactions; R for all MasterCard aggregator authorizations; otherwise, not used.</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td><em>FDC Compass</em>  This value must consist of upper-case characters.</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>With MasterCard, the value for this field corresponds to the following data in the TC 33 capture file5:</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>▪ Record: CP01 TCR6</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>▪ Position: 117-131</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
<tr>
<td></td>
<td>▪ Field: MasterCard Sub-Merchant ID</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
<td>FDC Compass: R for all aggregator transactions. FDC Nashville Global: String (14)</td>
</tr>
</tbody>
</table>

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 72. 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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchant MerchantID</td>
<td>Unique identifier assigned by the payment card company to the sub-merchant. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService</td>
<td>String (15)</td>
</tr>
</tbody>
</table>

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 72. **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.
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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| invoiceHeader_submerchantName | Sub-merchant's business name. See "Aggregator Support," page 98. **FDC Compass** This value must consist of upper-case characters. **FDC Nashville Global** With MasterCard, the maximum length of the submerchant name depends on the length of the aggregator name:  
- If aggregator name length is 1 through 3, maximum submerchant name length is 21.  
- If aggregator name length is 4 through 7, maximum submerchant name length is 17.  
- If aggregator name length is 8 through 12, maximum submerchant name length is 12. | ccAuthService ccCaptureService ccCreditService American Express Direct: String (37) 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 72. **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 networks.
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<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantPostalCode</td>
<td>Partial postal code for the sub-merchant's address. See &quot;Aggregator Support,&quot; page 98. <strong>FDC Compass</strong> This value must consist of upper-case characters.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>American Express Direct: String (9) FDC Compass: String (15) FDC Nashville Global: String (9)</td>
</tr>
<tr>
<td>invoiceHeader_submerchantRegion</td>
<td>Sub-merchant's region. Example: NE indicates that the sub-merchant is in the northeast region. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService</td>
<td>String (3)</td>
</tr>
</tbody>
</table>

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 72. **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.
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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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantState</td>
<td>Sub-merchant’s state or province. Use the <em>State, Province, and Territory Codes for the United States and Canada.</em> See &quot;Aggregator Support,&quot; page 98. <strong>FDC Compass</strong> This value must consist of upper-case characters.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>String (3)</td>
</tr>
<tr>
<td>invoiceHeader_submerchantStreet</td>
<td>First line of the sub-merchant’s street address. See &quot;Aggregator Support,&quot; page 98. <strong>FDC Compass</strong> This value must consist of upper-case characters.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>American Express Direct: String (30) FDC Compass: String (38) FDC Nashville Global: String (25)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
### Appendix A: API Fields

#### Table 65  Request Fields (Continued)

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<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoiceHeader_submerchantTelephone Number</td>
<td>Sub-merchant's telephone number. See &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService</td>
<td>American Express Direct: String (20)</td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td>ccCaptureService</td>
<td>CyberSource through VisaNet: String (20)</td>
</tr>
<tr>
<td></td>
<td>With American Express, the value for this field corresponds to the following data in the TC 33 capture file⁵:</td>
<td>ccCreditService</td>
<td>FDC Compass: String (13)</td>
</tr>
<tr>
<td></td>
<td>- Record: CP01 TCRB</td>
<td></td>
<td>FDC Nashville Global: String (10)</td>
</tr>
<tr>
<td></td>
<td>- Position: 5-24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Field: American Express Seller Telephone Number</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FDC Compass</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This value must consist of upper-case characters. Use one of these recommended formats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NNN-NNN-NNNN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NNN-AAAAAAA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>issuer_additionalData</td>
<td>Data defined by the issuer. For more information, see Appendix K, &quot;Formats for Discretionary Data,&quot; on page 378.</td>
<td>ccAuthService (O)</td>
<td>String (256)</td>
</tr>
<tr>
<td></td>
<td><strong>ccAuthReversalService (O)</strong></td>
<td>ccCreditService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ccCaptureService (O)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>item_#_productCode</strong></td>
<td>ccAuthService (O)</td>
<td>String (255)</td>
</tr>
<tr>
<td></td>
<td>Type of product. This value is used to determine the category that the product is in:</td>
<td>ccCaptureService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>electronic, handling, physical, service, or shipping. The default value is default. See Table 80, &quot;Product Codes,&quot; on page 392 for a list of valid values.</td>
<td>ccCreditService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For <strong>ccAuthService</strong>, when you set this field to a value other than default or any of the values related to shipping and/or handling, the <strong>item_#_quantity</strong>, <strong>item_#_productName</strong>, and <strong>item_#_productSKU</strong> fields are required.</td>
<td>ccDCCService (O)</td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.
Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>item_#_productName</td>
<td>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.</td>
<td>ccAuthService (See the field description.) ccCaptureService (See the field description.) ccDCCService (O)</td>
<td>String (255)</td>
</tr>
<tr>
<td>item_#_productSKU</td>
<td>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.</td>
<td>ccAuthService (See the field description.) ccCaptureService (See the field description.) ccDCCService (O)</td>
<td>String (255)</td>
</tr>
<tr>
<td>item_#_quantity</td>
<td>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.</td>
<td>ccAuthService (See the field description.) ccAuthReversal Service (O) ccCaptureService (See the field description.) ccCreditService (O) ccDCCService (O)</td>
<td>Integer (10)</td>
</tr>
</tbody>
</table>

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 72. 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 networks.
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.

---

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 72. 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 networks.
## Appendix A
### API Fields

### Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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. **Important** Some processors have specific requirements and limitations, such as maximum amounts and maximum field lengths. This information is covered in:  
  - Table 11, "Authorization Information for Specific Processors," on page 35  
  - Table 15, "Capture Information for Specific Processors," on page 49  
  - Table 19, "Credit Information for Specific Processors," on page 63  
  **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 110.  
  **FDMS South**  
  If you accept IDR or CLP currencies, see the entry for FDMS South in Table 11, "Authorization Information for Specific Processors," on page 35.  
  **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 213. |
| ccAuthService³         |                                                                             | ccAuthService³                        | String (15)        |
| ccAuthReversalService³|                                                                             | ccAuthReversalService³               |                    |
| ccCaptureService³      |                                                                             | ccCaptureService³                    |                    |
| ccCreditService³       |                                                                             | ccCreditService³                     |                    |

---

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 72. **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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>jpo_bonusAmount</td>
<td>Japanese payment option bonus amount: Amount of the payment during the bonus month. The value must be greater than 0.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>Nonnegative integer (8)</td>
</tr>
<tr>
<td>jpo_bonuses</td>
<td>Japanese payment option bonuses: Number of bonus payments.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>Integer (2)</td>
</tr>
<tr>
<td>jpo_installments</td>
<td>Japanese payment option installments: Number of installment payments.</td>
<td>ccAuthService ccCaptureService ccCreditService</td>
<td>Integer (2)</td>
</tr>
<tr>
<td>jpo_paymentMethod</td>
<td>Japanese payment option payment method: type of payment option. Possible values:</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>Integer (1)</td>
</tr>
<tr>
<td></td>
<td>1 (default): Single payment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2: Bonus payment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3: Installment bonus payment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4: Installment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5: Revolving repayment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6: Combination of installment and bonus payment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See "Japanese Payment Options," page 130.

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 72. **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 networks.
### Table 65 Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 86.  
  - Split shipments: see "Split Shipments," page 203. | ccAuthService (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 72. **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 networks.
### Table 65 Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>merchantCategoryCode</td>
<td>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 &quot;Aggregator Support,&quot; page 98.</td>
<td>ccAuthService ccCaptureService ccCreditService For R/O information, see description.</td>
<td>Integer (4)</td>
</tr>
</tbody>
</table>

**CyberSource through VisaNet**

The value for this field corresponds to the following data in the TC 33 capture file:

- Record: CP01 TCR4
- Position: 150-153
- Field: Merchant Category Code

**Required/Optional**

- 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.

---

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 72. **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 networks.
Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>merchantDefinedData_field1 to merchantDefinedData_field20</td>
<td>Fields that you can use to store information. <strong>Important</strong> 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. <strong>Warning</strong> Merchant-defined fields <em>must not</em> be used to capture personally identifying information as stated in the warning under the following field description for merchantDefinedData_mddField_1 to 100.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (255)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
Appendix A

API Fields

### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>merchantDefinedData_mddField_1 to merchantDefinedData_mddField_100</td>
<td>Fields that you can use to store information. <strong>Important</strong> These fields override the old merchant-defined data fields. For example, if you use the obsolete field <code>merchantDefinedData_field15</code> and the new field <code>merchantDefinedData_mddField_15</code> in the same request, the value for the new field overwrites the value for the obsolete field. <strong>Warning</strong> 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, CV2, CV2, 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.</td>
<td>ccAuthService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (255)</td>
</tr>
<tr>
<td>merchantID</td>
<td>Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.</td>
<td>Required for all credit card services.</td>
<td>String (30)</td>
</tr>
</tbody>
</table>

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 72. **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 networks.
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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>merchantReference</td>
<td>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 <em>Getting Started with CyberSource Advanced for the Simple Order API</em>.</td>
<td>Required for all credit card services.</td>
<td>Asia, Middle East, and Africa Gateway: String (40) Atos: String (32) All other processors: String (50)</td>
</tr>
<tr>
<td>Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDC Nashville Global</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>merchantTransaction</td>
<td>Identifier that you assign to the transaction. See &quot;Merchant-Initiated Reversals and voids,&quot; page 170.</td>
<td>ccAuthService (O) ccAuthReversal Service (O) ccCaptureService (O) ccCreditService (O) voidService (O)</td>
<td>String (15)</td>
</tr>
<tr>
<td>Identifier</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. *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*.
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### Table 65 Request Fields (Continued)

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<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| nationalNetDomestic   | 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)  
  ccAuthReversalService (O)  
  ccCaptureService (O)  
  ccCreditService (O) | String (123) |
| Data                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                   |
| 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. | ccAuthReversalService (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 \texttt{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 72. \textbf{Important} It is your responsibility to determine whether a field is required for the transaction you are requesting.  
3 You must include either \texttt{item\_#\_unitPrice} or \texttt{purchaseTotals\_grandTotalAmount} in your request. For information about items and grand totals, see \textit{Getting Started with CyberSource Advanced for the Simple Order API}.  
4 Required for Visa Checkout transactions. Otherwise, not used.  
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<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>paymentSolution</td>
<td>Type of payment solution that is being used for the transaction. Possible Values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>005: MasterPass. This value is required for MasterPass transactions on OmniPay Direct. See &quot;MasterPass,&quot; page 132.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>visacheckout: Visa Checkout. This value is required for Visa Checkout transactions. See Visa Checkout Using the Simple Order API.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>personalId_number</td>
<td>Identifier for the customer. This field is supported only on the processors listed in this description.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ComercioLatino Set this field to the Cadastro de Pessoas Fisicas (CPF).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.
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<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>pos_environment</td>
<td>Operating environment. Possible values:</td>
<td>ccAuthService (O)</td>
<td>String (1)</td>
</tr>
<tr>
<td></td>
<td>- 0: No terminal used or unknown environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1: On merchant premises, attended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 3: Off merchant premises, attended. Examples: portable POS devices at trade shows, at service calls, or in taxis.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 5: On premises of cardholder, unattended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 9: Unknown delivery mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- S: Electronic delivery of product. Examples: music, software, or eTickets that are downloaded over the internet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- T: Physical delivery of product. Examples: music or software that is delivered by mail or by a courier.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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.

---

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 72. **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 networks.
### Table 65 Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>processorID</td>
<td>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.</td>
<td>ccAuthService (O) ccCreditService (O for stand-alone credits; otherwise, not used.)</td>
<td>String (3)</td>
</tr>
<tr>
<td>purchaseTotals_additionalAmount0</td>
<td>Additional amount. This field is supported only for American Express Direct. See &quot;Additional Amounts,&quot; page 97.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (12)</td>
</tr>
<tr>
<td>purchaseTotals_additionalAmount1</td>
<td>Additional amount type. This field is supported only for American Express Direct. See &quot;Additional Amounts,&quot; page 97, for a description of this feature. For the possible values for this field, see Appendix C, &quot;Additional Amount Types,&quot; on page 360.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (3)</td>
</tr>
<tr>
<td>purchaseTotals_additionalAmountType0</td>
<td>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 &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td>ccAuthService (R) ccAuthReversalService (R) ccCaptureService (R) ccCreditService (R) ccDCCService (R)</td>
<td>String (5)</td>
</tr>
</tbody>
</table>

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 72. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.
3. You must include either item单元价格 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 networks.
## Table 65  Request Fields (Continued)

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<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchaseTotals_.</td>
<td><strong>DCC for First Data</strong></td>
<td>ccAuthService (R for DCC transactions)</td>
<td>DCC for First Data: String (13)</td>
</tr>
<tr>
<td>exchangeRate</td>
<td>Exchange rate returned by the DCC service.</td>
<td>ccCaptureService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes a decimal point and a maximum of 4</td>
<td>ccCreditService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>decimal places. For details, see &quot;Dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_.</td>
<td><strong>DCC for First Data</strong></td>
<td>ccAuthService (R for DCC transactions)</td>
<td>DCC for First Data: String (14)</td>
</tr>
<tr>
<td>exchangeRateTime</td>
<td>Time stamp for the exchange rate. This value is</td>
<td>ccCaptureService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td>Stamp</td>
<td>returned by the DCC service.</td>
<td>ccCreditService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Format: YYYYMMDD–HH:MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>where ~ denotes a space.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For details, see &quot;Dynamic Currency Conversion for</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_.</td>
<td><strong>DCC for First Data</strong></td>
<td>ccAuthService (R for DCC transactions)</td>
<td>DCC for First Data: String (15)</td>
</tr>
<tr>
<td>foreignAmount</td>
<td>Converted amount returned by the DCC service. For</td>
<td>ccCaptureService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>details, see &quot;Dynamic Currency Conversion for First</td>
<td>ccCreditService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_.</td>
<td><strong>DCC for First Data</strong></td>
<td>ccAuthService (R for DCC transactions)</td>
<td>String (5)</td>
</tr>
<tr>
<td>foreignCurrency</td>
<td>Billing currency returned by the DCC service.</td>
<td>ccCaptureService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For the possible values, see the *ISO Standard</td>
<td>ccCreditService (R for DCC transactions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Currency Codes*. For details about DCC, see &quot;Dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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 72. **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*. Required for Visa Checkout transactions. Otherwise, not used.
4 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 65  Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 11, "Authorization Information for Specific Processors," on page 35  
  - Table 15, "Capture Information for Specific Processors," on page 49  
  - Table 19, "Credit Information for Specific Processors," on page 63  
  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 213. | ccAuthService³  
  ccAuthReversalService³  
  ccCaptureService³  
  ccCreditService³ | Comercio Latino:  
  String (19)  
  All other processors:  
  String (15) |
| DCC for First Data                          | Not used.                                                                                                                                                                                                   |                                       |                    |
| FDMS South                                  | If you accept IDR or CLP currencies, see the entry for FDMS South in Table 11, "Authorization Information for Specific Processors," on page 35.                                                          |                                       |                    |
| 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 72. **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 networks. |  | |  |
Table 65 Request Fields (Continued)

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<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>recipient_accountID</td>
<td>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 &quot;Recipients,&quot; page 191.</td>
<td>ccAuthService (Required in recipient transactions; otherwise, not used)</td>
<td>String with numbers only (10)</td>
</tr>
<tr>
<td>recipient_dateOfBirth</td>
<td>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 &quot;Recipients,&quot; page 191.</td>
<td>ccAuthService (Required in recipient transactions; otherwise, not used)</td>
<td>String with numbers only (8)</td>
</tr>
<tr>
<td>recipient_lastName</td>
<td>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 &quot;Recipients,&quot; page 191.</td>
<td>ccAuthService (Required in recipient transactions; otherwise, not used)</td>
<td>String with letters and numbers only (6)</td>
</tr>
<tr>
<td>recipient_postalCode</td>
<td>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 &quot;Recipients,&quot; page 191.</td>
<td>ccAuthService (Required in recipient transactions; otherwise, not used)</td>
<td>String with letters and numbers only (6)</td>
</tr>
</tbody>
</table>

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 72. 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 networks.
## Appendix A  API Fields

### Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>recurringSubscription</td>
<td>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 &quot;Payment Tokenization,&quot; page 189, and &quot;Recurring Billing,&quot; page 192.</td>
<td>ccAuthService (O) ccCreditService (O)</td>
<td>String (26)</td>
</tr>
<tr>
<td>Info_subscriptionID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reportGroup</td>
<td>Attribute that lets you define custom grouping for your processor reports. This field is supported only for Litle. See &quot;Report Groups,&quot; page 201.</td>
<td>ccAuthService (O) ccAuthReversalService (O) ccCaptureService (O) ccCreditService (O)</td>
<td>String (25)</td>
</tr>
<tr>
<td>shipFrom_postalCode</td>
<td>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. <strong>American Express Direct</strong> 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.</td>
<td>ccCaptureService (O) ccCreditService (O)</td>
<td>String (10)</td>
</tr>
</tbody>
</table>

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 72. **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.
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Table 65: Request Fields (Continued)

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<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>shipTo_buildingNumber</td>
<td>Building number in the street address. For example, if the street address is: Rua da Quitanda 187 then the building number is 187.</td>
<td>ccAuthService (O)</td>
<td>String (15)</td>
</tr>
<tr>
<td>shipTo_city</td>
<td>City of the shipping address.</td>
<td>ccAuthService</td>
<td>String (50)</td>
</tr>
<tr>
<td></td>
<td>Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.</td>
<td>ccAuthService (O)</td>
<td>String (2)</td>
</tr>
<tr>
<td>shipTo_country</td>
<td>Country of the shipping address. Use the two-character ISO Standard Country Codes.</td>
<td>ccAuthService</td>
<td>String (2)</td>
</tr>
<tr>
<td></td>
<td>ccCaptureService</td>
<td>ccAuthService</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ccCreditService</td>
<td>ccCreditService</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Required if any shipping address information is included in the request; otherwise, optional.</td>
<td>ccAuthService</td>
<td></td>
</tr>
<tr>
<td>shipTo_district</td>
<td>Neighborhood, community or region within a city or municipality.</td>
<td>ccAuthService (O)</td>
<td>String (50)</td>
</tr>
<tr>
<td>shipTo_firstName</td>
<td>First name of the person receiving the product.</td>
<td>ccAuthService (O)</td>
<td>Little: String (25)</td>
</tr>
<tr>
<td></td>
<td>All other processors: String (60)</td>
<td>All other processors: String (60)</td>
<td></td>
</tr>
<tr>
<td>shipTo_lastName</td>
<td>Last name of the person receiving the product.</td>
<td>ccAuthService (O)</td>
<td>Little: String (25)</td>
</tr>
<tr>
<td></td>
<td>All other processors: String (60)</td>
<td>All other processors: String (60)</td>
<td></td>
</tr>
<tr>
<td>shipTo_phoneNumber</td>
<td>Phone number for the shipping address.</td>
<td>ccAuthService (O)</td>
<td>String (15)</td>
</tr>
</tbody>
</table>

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 72. 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.
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<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>shipTo_postalCode</td>
<td>Postal code for the shipping address. The postal code must consist of 5 to 9 digits. When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example: 12345-6789 When the shipping 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.</td>
<td>ccAuthService ccCaptureService ccCreditService Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.</td>
<td>String (10)</td>
</tr>
</tbody>
</table>
| shipTo_shippingMethod | Shipping method for the product. Possible values:  
  - sameDay: Courier or same-day service  
  - oneday: Next day or overnight service  
  - twoday: Two-day service  
  - threeday: Three-day service  
  - lowcost: Lowest-cost 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 72. 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.  
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<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>shipTo_state</td>
<td>State or province of the address to ship the product to. Use the State, Province, and Territory Codes for the United States and Canada.</td>
<td>ccAuthService Required if any shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, optional.</td>
<td>String (2)</td>
</tr>
<tr>
<td>shipTo_street1</td>
<td>First line of the address to ship the product to.</td>
<td>ccAuthService Required if any shipping address information is included in the request; otherwise, optional.</td>
<td>String (60)</td>
</tr>
<tr>
<td>shipTo_street2</td>
<td>Second line of the address to ship the product to.</td>
<td>ccAuthService (O)</td>
<td>String (60)</td>
</tr>
<tr>
<td>surchargeAmount</td>
<td>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.</td>
<td>ccAuthService (O)</td>
<td>String (15)</td>
</tr>
<tr>
<td>surchargeSign</td>
<td>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.</td>
<td>ccAuthService (O)</td>
<td>String (1)</td>
</tr>
</tbody>
</table>

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 72. Important It is your responsibility to determine whether a field is required for the transaction you are requesting.
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<th>Description</th>
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<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 174. | ccAuthService | String (32) |
| ucaf_collectionIndicator  | Universal cardholder authentication field (UCAF) collection indicator. For the description and requirements, see "Payer Authentication," page 174.  
  *CyberSource through VisaNet*  
The value for this field corresponds to the following data in the TC 33 capture file5:  
  - 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. | ccAuthService4 | String (48) |
|                           |                                                                             | ccAuthReversalService4 |                     |
|                           |                                                                             | ccCaptureService4 |                     |
|                           |                                                                             | ccCreditService4 |                     |

---

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 72. 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 networks.
## Table 65  Request Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>voidService_run</td>
<td>Whether to include <strong>voidService</strong> in your request. Possible values:</td>
<td>voidService (R)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>-  <strong>true</strong>: Include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-  <strong>false</strong> (default): Do not include the service in your request.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>voidService_requestID</td>
<td>Request ID of the capture or credit you want to void.</td>
<td>voidService (R)</td>
<td>String (26)</td>
</tr>
<tr>
<td>voidService_requestToken</td>
<td>Value of the request token returned from a previous request for a service 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.</td>
<td>voidService (Required for Atos; otherwise, optional.)</td>
<td>String (256)</td>
</tr>
</tbody>
</table>

---

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 72. **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 networks.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By: Required (R) or Optional (O)</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>wallet_type</td>
<td>Type of wallet. For possible values, see Appendix S, &quot;Values for the Wallet Type Field,&quot; on page 403.</td>
<td>MasterPass (101 and 102) ccAuthService (O) ccCreditService (O on Chase Paymentech Solutions and CyberSource through VisaNet. Not used for credits on OmniPay Direct.)</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>For Visa Checkout transactions on FDC Compass and FDC Nashville Global, CyberSource sends the value that the processor expects for this field. For all other values on 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment card companies can introduce new values without notice. Your order management system should be able to process new values without problems.</td>
<td>Staged Digital Wallet (SDW) ccAuthService (O) ccCreditService (O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td>Visa Checkout (VCIND) ccAuthService (R) ccCreditService (O for stand-alone credits. Not used for follow-on credits.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This field is supported only for authorizations. It is not supported for credits.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the value for this field is 101 or 102, it corresponds to the following data in the TC 33 capture file:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Record: CP01 TCR6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Position: 88-90</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Field: MasterCard Wallet Identifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the value for this field is VCIND, it corresponds to the following data in the TC 33 capture file:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Record: CP01 TCR8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Position: 72-76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Field: Agent Unique ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MasterPass (101 and 102)</strong> The MasterPass platform generates the wallet type value and passes it to you along with the customer’s checkout information.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 72. **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 networks.
## Reply Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>additionalData</td>
<td>This field might contain information about a decline. This field is supported only for CyberSource through VisaNet.</td>
<td>ccAuthReply</td>
<td>String (255)</td>
</tr>
</tbody>
</table>
| additionalProcessorResponse| 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          | Comercio Latino: Integer (32)  
  All other processors: Integer (3) |
| `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 92, and "Balance Inquiries," page 107. | 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 107. Possible values:  
  - positive  
  - negative | ccAuthReply          | String (8)          |
| `ccAuthReply_accountType` | Type of account. This value is returned only if you requested a balance inquiry. See "Balance Inquiries," page 107. Possible values:  
  - 00: Not applicable or not specified  
  - 10: Savings account  
  - 20: Checking account  
  - 30: Credit card account  
  - 40: Universal account | ccAuthReply          | String (2)          |
**Table 66  Reply Fields (Continued)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| ccAuthReply_                | **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 108.  
**Litle**  
Flag that indicates 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). |
| affluenceIndicator         |                                                                                                 | ccAuthReply  | Chase Paymentech Solution: String (1) |
|                            |                                                                                                 |              | Litle: String (13) |
|                            | **FDMS South**  
If you accept IDR or CLP currencies on FDMS South, see the entry for FDMS South in Table 11, "Authorization Information for Specific Processors," on page 35. |
| ccAuthReply_amount         | Amount that was authorized.                                                                      | ccAuthReply  | String (15)         |

---
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_.</td>
<td>Type of amount. This value is returned only if you requested a balance inquiry. The issuer determines the value that is returned. See &quot;Balance Inquiries,&quot; page 107. 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.</td>
<td>ccAuthReply</td>
<td>String (2)</td>
</tr>
<tr>
<td>amountType</td>
<td>Authorization code. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>String</td>
</tr>
<tr>
<td></td>
<td><strong>Elavon Encrypted Account Number Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The returned value is OFFLINE. See &quot;Encoded Account Numbers,&quot; page 115.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TSYS Acquiring Solutions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The returned value for a successful zero amount authorization is 000000. See &quot;Zero Amount Authorizations,&quot; page 213.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>avsCode</td>
<td>AVS results. See &quot;Address Verification System (AVS),&quot; page 69, for a description of AVS. See Appendix E, &quot;AVS Codes,&quot; on page 364, for the list of AVS codes.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>avsCodeRaw</td>
<td>AVS result code sent directly from the processor. Returned only when the processor returns this value. <strong>Important</strong> Do not use this field to evaluate the result of AVS. Use for debugging purposes only.</td>
<td>ccAuthReply</td>
<td>String (10)</td>
</tr>
</tbody>
</table>
## Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_cardCategory</td>
<td><strong>CyberSource through VisaNet</strong> Visa product ID. For the possible values, see &quot;Visa Product IDs,&quot; page 393.</td>
<td>ccAuthReply</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>GPN</strong> Visa or MasterCard product ID. For the possible values, see Appendix P, &quot;Product IDs,&quot; on page 393.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Litle</strong> Type of card used in the transaction. The only possible value is:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ PREPAID: Prepaid Card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>RBS WorldPay Atlanta</strong> Type of card used in the transaction. Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ B: Business Card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ O: Noncommercial Card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ R: Corporate Card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ S: Purchase Card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Blank: Purchase card not supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccAuthReply_cardCommercial</td>
<td>Indicates whether the card is a commercial card, which enables you to include Level II data in your transaction requests.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td></td>
<td>This field is supported for Visa and MasterCard on Chase Paymentech Solutions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Y: Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ N: No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ X: Not applicable / Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See &quot;Card Type Indicators (CTIs),&quot; page 108.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccAuthReply_cardGroup</td>
<td>Type of commercial card. This field is supported only for CyberSource through VisaNet. Possible values:</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td></td>
<td>■ B: Business card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ R: Corporate card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ S: Purchasing card</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ 0: Noncommercial card</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix A  API Fields

### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_cardHealthcare</td>
<td>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</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_cardIssuerCountry</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccAuthReply</td>
<td>String (3)</td>
</tr>
<tr>
<td>ccAuthReply_cardLevel3Eligible</td>
<td>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</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_cardPayroll</td>
<td>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</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
</tbody>
</table>

See "Card Type Indicators (CTIs)," page 108.
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 108. | 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 108. | 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 108. | ccAuthReply | String (1) |
Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 108. |
|                            |                                                                             | ccAuthReply | String (1)         |
| ccAuthReply_cavvResponseCode | Mapped response code for Verified by Visa and American Express SafeKey:  
|                            |                                                                             | ccAuthReply | String (3)         |
| ccAuthReply_cavvResponseCodeRaw | Raw response code sent directly from the processor for Verified by Visa and American Express SafeKey:  
<p>|                            |                                                                             | ccAuthReply | String (3)         |
| ccAuthReply_cvCode | CVN result code. See &quot;Card Verification Numbers (CVNs),&quot; page 78, for a description of the card verification check. See Appendix H, &quot;CVN Codes,&quot; on page 372, 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)        |
| ccAuthReply_evEmail | Mapped Electronic Verification response code for the customer’s email address. See Appendix J, &quot;Electronic Verification Response Codes,&quot; on page 377. |
|                            |                                                                             | ccAuthReply | String (1)         |</p>
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_evEmailRaw</td>
<td>Raw Electronic Verification response code from the processor for the customer's email address.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evName</td>
<td>Mapped Electronic Verification response code for the customer's name. See Appendix J, &quot;Electronic Verification Response Codes,&quot; on page 377.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evNameRaw</td>
<td>Raw Electronic Verification response code from the processor for the customer's last name.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evPhoneNumber</td>
<td>Mapped Electronic Verification response code for the customer's phone number. See Appendix J, &quot;Electronic Verification Response Codes,&quot; on page 377.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evPhoneNumberRaw</td>
<td>Raw Electronic Verification response code from the processor for the customer's phone number.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evPostalCodeRaw</td>
<td>Raw Electronic Verification response code from the processor for the customer's postal code.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evStreet</td>
<td>Mapped Electronic Verification response code for the customer's street address. See Appendix J, &quot;Electronic Verification Response Codes,&quot; on page 377.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_evStreetRaw</td>
<td>Raw Electronic Verification response code from the processor for the customer's street address.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_forwardCode</td>
<td>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.</td>
<td>ccAuthReply</td>
<td>String (32)</td>
</tr>
</tbody>
</table>
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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.  
  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.                                                                                                                                     | ccAuthReply     | String (2)          |
| ccAuthReply_ownerMerchantID | Merchant ID that was used to create the subscription or customer profile for which the service was requested.                                                                                                                           | ccAuthReply     | String (30)         |

#### 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*. 
Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_</td>
<td>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.</td>
<td>ccAuthReply</td>
<td></td>
</tr>
<tr>
<td>paymentNetwork</td>
<td></td>
<td></td>
<td>Comercio Latino: String (20)</td>
</tr>
<tr>
<td>TransactionID</td>
<td></td>
<td></td>
<td>All other processors:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>String (15)</td>
</tr>
<tr>
<td><strong>Cielo</strong></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comercio Latino</strong></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CyberSource through VisaNet and GPN</strong></td>
<td>For details about this value for CyberSource through VisaNet and GPN, see Appendix N, “Network Transaction Identifiers,” on page 390.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccAuthReply_</td>
<td>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:</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>personalIDCode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Y: Match</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ N: No match</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ K: Not supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ U: Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Z: No response returned</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td><em>CyberSource Latin American Processing</em> is the name of a specific processing connection that CyberSource supports. In the CyberSource API documentation, <em>CyberSource Latin American Processing</em> 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 <em>CyberSource Latin American Processing</em>. It is not for any other Latin American processors that CyberSource supports.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 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 106.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_posData</td>
<td>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 &quot;Authorization Only,&quot; page 106.</td>
<td>ccAuthReply</td>
<td>String (12)</td>
</tr>
</tbody>
</table>
Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_processorResponse</td>
<td>For most processors, this is the error message sent directly from the bank. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>JCN</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong>  Do not use this field to evaluate the result of the authorization.</td>
<td></td>
<td>Gateway: String (3)</td>
</tr>
<tr>
<td></td>
<td><strong>AIBMS</strong>       If this value is 08, you can accept the transaction if the customer provides you with identification.</td>
<td></td>
<td>All other processors: String (10)</td>
</tr>
<tr>
<td></td>
<td><strong>Atos</strong>        This value is the response code sent from Atos and it might also include the response code from the bank.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Format: aa,bb with the two values separated by a comma and where:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• aa is the two-digit error message from Atos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• bb is the optional two-digit error message from the bank.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Comercio Latino</strong> This value is the status code and the error or response code received from the processor separated by a colon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Format: [status code]:E[error code] or [status code]:R[response code]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example: 2:R06</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>JCN Gateway</strong> Processor-defined detail error code. The associated response category code is in the additionalProcessorResponse field.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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_reasonCode | Numeric value corresponding to the result of the credit card authorization request. See Appendix Q, "Reason Codes," on page 398. | 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 24 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_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 86. | 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 86. For the possible values, see the ISO Standard Currency Codes. | ccAuthReply | String (5)          |
### Table 66  
**Reply Fields (Continued)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply__transactionID</td>
<td>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 &quot;Authorization Only,&quot; page 106.</td>
<td>ccAuthReply</td>
<td>String (15)</td>
</tr>
<tr>
<td>ccAuthReversalReply__amount</td>
<td>Amount that was reversed.</td>
<td>ccAuthReversal Reply</td>
<td>String (15)</td>
</tr>
<tr>
<td>ccAuthReversalReply__authorizationCode</td>
<td>Authorization code. Returned only when the authorization code is returned by the processor.</td>
<td>ccAuthReversal Reply</td>
<td>String (6)</td>
</tr>
<tr>
<td>ccAuthReversalReply__forwardCode</td>
<td>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.</td>
<td>ccAuthReversal Reply</td>
<td>String (32)</td>
</tr>
</tbody>
</table>
| 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) |


## Appendix A
### API Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReversalReply_processorTransactionID</td>
<td>Processor transaction ID. This field is supported only for Moneris.</td>
<td>ccAuthReversal Reply</td>
<td>Positive Integer (18)</td>
</tr>
<tr>
<td></td>
<td>This value identifies the transaction on a host system. It contains the following information:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Terminal used to process the transaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Shift during which the transaction took place</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Batch number</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Transaction number within the batch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You must store this value. If you give the customer a receipt, display this value on the receipt.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example: For the value 66012345001069003:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Terminal ID = 66012345</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Shift number = 001</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Batch number = 069</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Transaction number = 003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccAuthReversalReply_reasonCode</td>
<td>Numeric value corresponding to the result of the full authorization reversal request. See Appendix Q, &quot;Reason Codes,&quot; on page 398.</td>
<td>ccAuthReversal Reply</td>
<td>Integer (5)</td>
</tr>
<tr>
<td>ccAuthReversalReply_reconciliationID</td>
<td>Reference number for the transaction. This value is not returned for all processors. See Table 7, &quot;Fields for Reconciliation IDs,&quot; on page 24 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.</td>
<td>ccAuthReversal Reply</td>
<td>String (60)</td>
</tr>
<tr>
<td>ccAuthReversalReply_requestDateTime</td>
<td>Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ</td>
<td>ccAuthReversal Reply</td>
<td>String (20)</td>
</tr>
<tr>
<td>ccCaptureReply_amount</td>
<td>Amount that was captured.</td>
<td>ccCaptureReply</td>
<td>String (15)</td>
</tr>
</tbody>
</table>
### Field Descriptions

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 398.                                                                                                   | 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) |
| ccCaptureReply_ requestDateTime | Date and time at which the service was requested.  
Format: YYYY-MM-DDThh:mm:ssZ  
| 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)        |
## Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccCreditReply_ownerMerchantID</td>
<td>Merchant ID that was used to create the subscription or customer profile for which the service was requested.</td>
<td>ccCreditReply</td>
<td>String (30)</td>
</tr>
<tr>
<td></td>
<td><strong>Payment Tokenization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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 <em>Payment Tokenization Using the Simple Order API</em>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Recurring Billing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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 <em>Recurring Billing Using the Simple Order API</em>.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 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 398. | ccCreditReply     | Integer (5)                   |
Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccCreditReply_</td>
<td>Reference number that you use to reconcile your</td>
<td>ccCreditReply</td>
<td>String (6)</td>
</tr>
<tr>
<td>reconciliationID</td>
<td>CyberSource reports with your processor reports.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a> for information about order tracking and reconciliation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date and time at which the service was requested.</td>
<td>ccCreditReply</td>
<td>String (20)</td>
</tr>
<tr>
<td>ccCreditReply_</td>
<td>Flag that indicates whether DCC can be used for</td>
<td>ccDCCReply</td>
<td>String (5)</td>
</tr>
<tr>
<td>requestDateTime</td>
<td>the transaction. Possible values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUE: DCC can be used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FALSE: DCC cannot be used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccDCCReply_</td>
<td>Exchange rate surcharge that is applied to the wholesale exchange rate.</td>
<td>ccDCCReply</td>
<td>String (7)</td>
</tr>
<tr>
<td>dccSupported</td>
<td>Includes a decimal point and 4 decimal places. For details, see &quot;Dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ccDCCReply_</td>
<td>Numeric value corresponding to the result of the</td>
<td>ccDCCReply</td>
<td>Integer (5)</td>
</tr>
<tr>
<td>marginRate</td>
<td>DCC request. See Appendix Q, &quot;Reason Codes,&quot; on page 398.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCC for First Data</td>
<td>Summarizes the result of the overall request.</td>
<td>All credit</td>
<td>String (6)</td>
</tr>
<tr>
<td>ccDCCReply_</td>
<td>Possible values:</td>
<td>card services</td>
<td></td>
</tr>
<tr>
<td>reasonCode</td>
<td>ACCEPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCC for First Data</td>
<td>ERROR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>decision</td>
<td>REJECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REVIEW: Returned only when you use CyberSource Decision Manager.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For details about these values, see the information about handling replies in <a href="#">Getting Started with CyberSource Advanced for the Simple Order API</a>.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
</table>
| 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 378. | ccAuthService (O) ccAuthReversalService (O) ccCaptureService (O) | String (256) |
| merchantReferenceCode | 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 170. | ccAuthReversalReply voidReply | String (15)         |
### Table 66  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchaseTotals_currency</td>
<td>Currency used for the order. For the possible values, see the <em>ISO Standard Currency Codes</em>.</td>
<td>ccAuthReply, ccAuthReversalReply, ccCaptureReply, ccCreditReply, ccDCCReply</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td><strong>DCC for First Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Your local currency. For details, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_exchangeRate</td>
<td><strong>DCC for First Data</strong></td>
<td>ccDCCReply</td>
<td>String (13)</td>
</tr>
<tr>
<td></td>
<td>Exchange rate. Includes a decimal point and a maximum of 4 decimal places. For details, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_exchangeRateTime</td>
<td><strong>DCC for First Data</strong></td>
<td>ccDCCReply</td>
<td>String (14)</td>
</tr>
<tr>
<td></td>
<td>Time stamp for the exchange rate. For details, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Format: YYYYMMDD~HH:MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>where ~ denotes a space.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_foreignAmount</td>
<td><strong>DCC for First Data</strong></td>
<td>ccDCCReply</td>
<td>String (15)</td>
</tr>
<tr>
<td></td>
<td>Converted amount. For details, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_foreignCurrency</td>
<td><strong>DCC for First Data</strong></td>
<td>ccDCCReply</td>
<td>String (5)</td>
</tr>
<tr>
<td></td>
<td>Billing currency. For the possible values, see the <em>ISO Standard Currency Codes</em>. For details about DCC, see &quot;Dynamic Currency Conversion for First Data,&quot; page 110.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reasonCode</td>
<td>Numeric value corresponding to the result of the overall request. See Appendix Q, &quot;Reason Codes,&quot; on page 398.</td>
<td>All credit card services</td>
<td>Integer (5)</td>
</tr>
<tr>
<td>receiptNumber</td>
<td>This field is returned only for American Express Direct and CyberSource through VisaNet.</td>
<td>ccAuthReply</td>
<td>String (6)</td>
</tr>
<tr>
<td></td>
<td><strong>American Express Direct</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>System trace audit number (STAN). This value identifies the transaction and is useful when investigating a chargeback dispute.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CyberSource through VisaNet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>System trace number that must be printed on the customer’s receipt.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requestID</td>
<td>Identifier for the request.</td>
<td>All credit card services</td>
<td>String (26)</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
<td>Returned By</td>
<td>Data Type &amp; Length</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>requestToken</td>
<td>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. <strong>Note</strong> If Atos is your processor, you must store the contents of this field so that you can retrieve and send it in follow-on requests.</td>
<td>All credit card services</td>
<td>String (256)</td>
</tr>
<tr>
<td>voidReply_amount</td>
<td>Amount that was voided.</td>
<td>voidReply</td>
<td>String (15)</td>
</tr>
<tr>
<td>voidReply_currency</td>
<td>Currency used for the order. For the possible values, see the ISO Standard Currency Codes.</td>
<td>voidReply</td>
<td>String (5)</td>
</tr>
<tr>
<td>voidReply_reasonCode</td>
<td>Numeric value corresponding to the result of the void request. See Appendix Q, &quot;Reason Codes,&quot; on page 398.</td>
<td>voidReply</td>
<td>Integer (5)</td>
</tr>
</tbody>
</table>
| voidReply_requestDateTime | Date and time at which the service was requested. Format: YYYY-MM-DDThh:mm:ssZ  
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

cCaptureService_authRequestID=0305782650000167905080
merchantID=Napa Valley Vacations
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
cCaptureService_run=true
item_0_unitPrice=49.95
purchaseTotals_currency=USD

Example 6  Credit Card Capture Reply

requestID=1019827520348290570293
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
decision=ACCEPT
reasonCode=100
cCaptureReply_amount=49.95
purchaseTotals_currency=USD
cCaptureReply_reasonCode=100
cCaptureReply_reconciliationID=1094820975023470

Example 7  Credit Card Follow-on Credit Request

merchantID=Napa Valley Vacations
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
purchaseTotals_grandTotalAmount=1694.00
purchaseTotals_currency=EUR
cCreditService_run=true
cCreditService_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
ccAuthService_commerceIndicator=vbv
ccAuthService_xid=WhPiEr9WE2pb12345H1ewUIQwQ
ccAuthService_venesEnrolled=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  Auto 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
Appendix B  Examples

Example 12  Auto 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

merchandReferenceCode=Transaction-Cielo-NTA-1
requestID=423149314078500001540
decision=ACCEPT
reasonCode=100
purchaseTotal_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

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.
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
Appendix B  Examples

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=268849772340000852964
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

```plaintext
cAuthService_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
accountNumber=4111111111111111
cc_cardType=001
cvNumber=xxx
cc_expirationMonth=12
cc_expirationYear=2015
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=1401.00
```

Example 22 Partially Approved Authorization Reply

```plaintext
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

```plaintext
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

```plaintext
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

```plaintext
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=s159vu2nh4ek91q
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=411111111111111
ccAuthReply_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=411111111111111
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

cAuthService_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

cAuthReply_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

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>Napa Valley Vacations</merchantID>
  <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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.23">
  <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

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.37">
  <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

```xml
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
  <merchantID>Napa Valley Vacations</merchantID>
  <merchantReferenceCode>482046C3A7E94F5BD1FE3C66C</merchantReferenceCode>
  <purchaseTotals>
    <c:currency>EUR</c:currency>
    <c:grandTotalAmount>1694.00</c:grandTotalAmount>
  </purchaseTotals>
  <ccCreditService run="true">
    <c:captureRequestID>1019827520348290570293</c:captureRequestID>
  </ccCreditService>
</requestMessage>
```

Example 46  Credit Card Follow-on Credit Reply

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
  <c:requestID>9057101982752034820293</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:purchaseTotals>
    <c:currency>EUR</c:currency>
  </c:purchaseTotals>
  <ccCreditReply>
    <c:reasonCode>100</c:reasonCode>
    <c:amount>1694.00</c:amount>
    <c:reconciliationID>C3A7E94F5BD1FE3C64820466C</c:reconciliationID>
  </ccCreditReply>
</c:replyMessage>
```
Example 47  Credit Card Authorization Request with Payer Authentication Data

```xml
<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>PpmBUYt2uytV6p12345KuImAb8XgnOk</cavv>
    <commerceIndicator>vbv</commerceIndicator>
    <xid>WhPlErd9WE1234562pb1yPjFHlwUIQwQ</xid>
    <veresEnrolled>Y</veresEnrolled>
    <paresStatus>Y</paresStatus>
  </ccAuthService>
</requestMessage>
```
Example 48  Credit Card Authorization Reply

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.32">
  <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  Auto Capture Request with Elo

```xml
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
  <merchantID>Foster City Flowers</merchantID>
  <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  Auto Capture Reply with Elo

<replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.111">
  <requestID>4231489930765000001540</requestID>
  <decision>ACCEPT</decision>
  <reasonCode>100</reasonCode>
  <purchaseTotals>
    <currency>usd</currency>
  </purchaseTotals>
  <ccAuthReply>
    <reasonCode>100</reasonCode>
    <amount>104.00</amount>
    <authorizationCode>123456</authorizationCode>
    <avsCode>Y</avsCode>
    <avsCodeRaw>CC</avsCodeRaw>
    <processorResponse>00</processorResponse>
    <reconciliationID>Auth12345678</reconciliationID>
    <paymentNetworkTransactionID>333138</paymentNetworkTransactionID>
    <processorTransactionID>00142308609746028231</processorTransactionID>
  </ccAuthReply>
  <ccCaptureReply>
    <reasonCode>100</reasonCode>
    <amount>104.00</amount>
    <reconciliationID>Auth12345678</reconciliationID>
  </ccCaptureReply>
</replyMessage>
Example 51  Debit Card Request with Maestro (International)

```xml
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
  <merchantID>Foster City Flowers</merchantID>
  <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>WhPlEr9WE2pb1yFjFHlewUIQwQ=</authenticationData>
    <collectionIndicator>2</collectionIndicator>
  </ucaf>
  <ccAuthService run="true">ccAuthService</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: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

```xml
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.111">
  <merchantID>Foster City Flowers</merchantID>
  <billTo>
    <firstName>Júlia</firstName>
    <lastName>Fernández</lastName>
    <buildingNumber>1024</buildingNumber>
    <street1>R. Augustã</street1>
    <street2>Bloco 01</street2>
    <city>Philippines</city>
    <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"/>
</requestMessage>
```
Appendix B  Examples

Example 54  Installment Reply with Visa

Example 54  Installment Reply with Visa

<replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.111">
  <requestID>423149314078500001540</requestID>
  <decision>ACCEPT</decision>
  <reasonCode>100</reasonCode>
  <currency>brl</currency>
</purchaseTotals>
<ccAuthReply>
  <reasonCode>100</reasonCode>
  <amount>51025.00</amount>
  <authorizationCode>123456</authorizationCode>
  <avsCode>Y</avsCode>
  <avsCodeRaw>CC</avsCodeRaw>
  <processorResponse>00</processorResponse>
  <reconciliationID>Auth12345678</reconciliationID>
  <paymentNetworkTransactionID>333138</paymentNetworkTransactionID>
  <processorTransactionID>00142308609746028231</processorTransactionID>
</ccAuthReply>
</replyMessage>

CyberSource Latin American Processing Examples

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

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.41">
  <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

```xml
<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:requestID>2688497722340000852964</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**

```xml
<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: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

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
  <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

```xml
<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

<xsl:copy>
    <c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
        <c:requestID>0305782650000167905080</c:requestID>
        <c:decision>ACCEPT</c:decision>
        <c:reasonCode>100</c:reasonCode>
        <c:currency>USD</c:currency>
        <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>
</xsl:copy>
One Authorization and Two Captures

Example 65  Credit Card Authorization Request

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
  <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

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <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

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
    <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

```xml
: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: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

```xml
<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

```xml
<replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
  <merchantReferenceCode>482046C3A7E94F5BD1</merchantReferenceCode>
  <requestID>1416783769994859</requestID>
  <decision>ACCEPT</decision>
  <reasonCode>100</reasonCode>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <ccAuthReply>
    <reasonCode>100</reasonCode>
    <amount>49.95</amount>
    <authorizationCode>123456</authorizationCode>
    <avsCode>Y</avsCode>
    <avsCodeRaw>YYY</avsCodeRaw>
    <processorResponse>A</processorResponse>
  </ccAuthReply>
</replyMessage>
```

Example 75  Credit Card Capture Request

```xml
<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

```xml
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.40">
  <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>
```

Example 77  Credit Card Authorization Request

```xml
<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

```xml
<replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.105">
  <merchantReferenceCode>123456</merchantReferenceCode>
  <requestID>4068437426340172492292</requestID>
  <decision>ACCEPT</decision>
  <reasonCode>100</reasonCode>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <ccAuthReply>
    <reasonCode>100</reasonCode>
    <amount>25.00</amount>
    <authorizationCode>831000</authorizationCode>
    <avsCode>Y</avsCode>
    <avsCodeRaw>Y</avsCodeRaw>
    <processorResponse>00</processorResponse>
  </ccAuthReply>
</replyMessage>
```
Additional amount types are used with additional amounts, which are described in "Additional Amounts," page 97.

Table 67 Additional Amount Types for Goods and Services

<table>
<thead>
<tr>
<th>Goods and Services</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>019</td>
</tr>
<tr>
<td>Bar/Mini-Bar</td>
<td>023</td>
</tr>
<tr>
<td>Barber/Beauty Salon</td>
<td>028</td>
</tr>
<tr>
<td>Beverage</td>
<td>017</td>
</tr>
<tr>
<td>Business Center</td>
<td>036</td>
</tr>
<tr>
<td>Catering Charges</td>
<td>022</td>
</tr>
<tr>
<td>Convention Fees</td>
<td>037</td>
</tr>
<tr>
<td>Food</td>
<td>016</td>
</tr>
<tr>
<td>Food/Beverage</td>
<td>018</td>
</tr>
<tr>
<td>Gift Shop</td>
<td>030</td>
</tr>
<tr>
<td>Health &amp; Fitness</td>
<td>029</td>
</tr>
<tr>
<td>Internet Service</td>
<td>025</td>
</tr>
<tr>
<td>Insurance Purchased</td>
<td>052</td>
</tr>
<tr>
<td>Laundry/Dry-Cleaning</td>
<td>027</td>
</tr>
<tr>
<td>Lodging</td>
<td>020</td>
</tr>
<tr>
<td>Movies/Pay-Per-View</td>
<td>026</td>
</tr>
<tr>
<td>Pet Fees</td>
<td>033</td>
</tr>
<tr>
<td>Phone</td>
<td>024</td>
</tr>
<tr>
<td>Pro Shop</td>
<td>031</td>
</tr>
<tr>
<td>Restaurant/Room Service</td>
<td>021</td>
</tr>
<tr>
<td>Reward Program Transaction</td>
<td>047</td>
</tr>
<tr>
<td>Tip/Gratuity</td>
<td>058</td>
</tr>
</tbody>
</table>
### Table 68  Additional Amount Types for Charges and Fees

<table>
<thead>
<tr>
<th>Charges and Fees</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Miles/Kilometers/Distance</td>
<td>062</td>
</tr>
<tr>
<td>Auto Rental Adjustment</td>
<td>060</td>
</tr>
<tr>
<td>Cancellation Adjustment</td>
<td>065</td>
</tr>
<tr>
<td>Charges Added After Check-Out/Departure</td>
<td>041</td>
</tr>
<tr>
<td>Convenience Charge</td>
<td>050</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>051</td>
</tr>
<tr>
<td>Discount</td>
<td>053</td>
</tr>
<tr>
<td>Equipment Rental</td>
<td>035</td>
</tr>
<tr>
<td>Express Service Charge</td>
<td>040</td>
</tr>
<tr>
<td>Freight/Shipping/Handling</td>
<td>055</td>
</tr>
<tr>
<td>Fuel Charge</td>
<td>061</td>
</tr>
<tr>
<td>Late Return</td>
<td>063</td>
</tr>
<tr>
<td>Meeting/Conference Charges</td>
<td>038</td>
</tr>
<tr>
<td>Misc Charges/Fees</td>
<td>042</td>
</tr>
<tr>
<td>No Show Charge</td>
<td>039</td>
</tr>
<tr>
<td>Order Processing Charge</td>
<td>049</td>
</tr>
<tr>
<td>Parking Fee</td>
<td>032</td>
</tr>
<tr>
<td>Policy Adjustment</td>
<td>066</td>
</tr>
<tr>
<td>Repairs</td>
<td>064</td>
</tr>
<tr>
<td>Surcharge</td>
<td>048</td>
</tr>
<tr>
<td>Tickets/Violations</td>
<td>054</td>
</tr>
<tr>
<td>Tours</td>
<td>034</td>
</tr>
</tbody>
</table>

### Table 69  Additional Amount Types for Taxes

<table>
<thead>
<tr>
<th>Taxes</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods and Services Tax CODE (GST)</td>
<td>001</td>
</tr>
<tr>
<td>Consumption Tax</td>
<td>002</td>
</tr>
<tr>
<td>Provincial Sales Tax (PST)</td>
<td>003</td>
</tr>
<tr>
<td>Quebec Sales Tax (QST)</td>
<td>004</td>
</tr>
<tr>
<td>Harmonized Sales Tax (HST)</td>
<td>005</td>
</tr>
<tr>
<td>Insurance Premium Tax (IPT)</td>
<td>006</td>
</tr>
<tr>
<td>Circulation of Merchandise and Service Tax (ICMS)</td>
<td>007</td>
</tr>
<tr>
<td>Industrialized Products Federal Tributary Tax (IPI Federal Tributary)</td>
<td>008</td>
</tr>
<tr>
<td>Taxes</td>
<td>Code</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Inland Revenue Income Tax (IR Income Tax)</td>
<td>009</td>
</tr>
<tr>
<td>International Students and Scholars Income Tax</td>
<td>010</td>
</tr>
<tr>
<td>(ISS Income Tax)</td>
<td></td>
</tr>
<tr>
<td>Income Security and Reform Tax (ISR Income Tax)</td>
<td>011</td>
</tr>
<tr>
<td>Occupancy Tax</td>
<td>012</td>
</tr>
<tr>
<td>Room Tax</td>
<td>013</td>
</tr>
<tr>
<td>Surcharge Tax</td>
<td>014</td>
</tr>
<tr>
<td>Airport Tax</td>
<td>015</td>
</tr>
<tr>
<td>Ticket Tax</td>
<td>043</td>
</tr>
<tr>
<td>Miscellaneous Tax</td>
<td>046</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>056</td>
</tr>
<tr>
<td>Stamp Duty</td>
<td>067</td>
</tr>
<tr>
<td>Value Added Tax (VAT)</td>
<td>057</td>
</tr>
<tr>
<td>Exempt - No GST charged</td>
<td>068</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAVV failed validation and authentication.</td>
</tr>
<tr>
<td>2</td>
<td>CAVV passed validation and authentication.</td>
</tr>
<tr>
<td>3</td>
<td>CAVV passed the validation attempt.</td>
</tr>
<tr>
<td>4</td>
<td>CAVV failed the validation attempt.</td>
</tr>
<tr>
<td>7</td>
<td>CAVV failed the validation attempt and the issuer is available.</td>
</tr>
<tr>
<td>8</td>
<td>CAVV passed the validation attempt and the issuer is available.</td>
</tr>
<tr>
<td>9</td>
<td>CAVV failed the validation attempt and the issuer is not available.</td>
</tr>
<tr>
<td>A</td>
<td>CAVV passed the validation attempt and the issuer is not available.</td>
</tr>
<tr>
<td>U</td>
<td>Issuer does not participate or 3-D secure data was not used.</td>
</tr>
<tr>
<td>99</td>
<td>An unknown value was returned from the processor.</td>
</tr>
</tbody>
</table>
AVS Codes

The AVS code is returned in `ccAuthReply_avsCode` in the authorization reply message. See "Address Verification System (AVS)," page 69, 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>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Partial match: postal code and address match.</td>
</tr>
<tr>
<td>E</td>
<td>Not supported: AVS is not supported for this card type.</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>Invalid: the acquirer returned an unrecognized value for the AVS response.</td>
</tr>
<tr>
<td>F</td>
<td>Partial match: postal code matches, but CPF and address do not match. ¹</td>
</tr>
<tr>
<td>G</td>
<td>Not supported: AVS not supported or not verified.</td>
</tr>
<tr>
<td>I</td>
<td>No match: AVS information is not available.</td>
</tr>
<tr>
<td>K</td>
<td>Partial match: CPF matches, but postal code and address do not match. ¹</td>
</tr>
<tr>
<td>L</td>
<td>Partial match: postal code and CPF match, but address does not match. ¹</td>
</tr>
</tbody>
</table>

¹ CPF (Cadastro de Pessoas Fisicas) is required only for Redecard in Brazil.
### AVS Codes for CyberSource Latin American Processing (Continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>No match: postal code, CPF, and address do not match. ¹</td>
</tr>
<tr>
<td>O</td>
<td>Partial match: CPF and address match, but postal code does not match. ¹</td>
</tr>
<tr>
<td>R</td>
<td>Not supported: your implementation does not support AVS.</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>System unavailable.</td>
</tr>
<tr>
<td>T</td>
<td>Partial match: address matches, but postal code and CPF do not match. ¹</td>
</tr>
<tr>
<td>V</td>
<td>Match: postal code, CPF, and address match. ¹</td>
</tr>
</tbody>
</table>

¹ CPF (Cadastro de Pessoas Fisicas) is required only for Redecard in Brazil.

### AVS Codes for All Other Processors

#### Table 72 Types of AVS Codes

<table>
<thead>
<tr>
<th>Type of Codes</th>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codes for American Express Cards</td>
<td>F, H, K, L, O, T, V</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
Appendix E  AVS Codes

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.

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 72  Types of AVS Codes (Continued)

<table>
<thead>
<tr>
<th>Type of Codes</th>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
</table>
| International Visa | 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. 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. |

### Table 73  AVS Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Partial match: street address matches, but 5-digit and 9-digit postal codes do not match.</td>
</tr>
<tr>
<td>B</td>
<td>Partial match: street address matches, but postal code is not verified.Returned only for Visa cards not issued in the U.S.</td>
</tr>
<tr>
<td>C</td>
<td>No match: street address and postal code do not match. Returned only for Visa cards not issued in the U.S.</td>
</tr>
<tr>
<td>D &amp; M</td>
<td>Match: street address and postal code match. Returned only for Visa cards not issued in the U.S.</td>
</tr>
<tr>
<td>E</td>
<td>Invalid: AVS data is invalid or AVS is not allowed for this card type.</td>
</tr>
<tr>
<td>F</td>
<td>Partial match: card member’s name does not match, but billing postal code matches.</td>
</tr>
<tr>
<td>G</td>
<td>Not supported: issuing bank outside the U.S. does not support AVS.</td>
</tr>
<tr>
<td>H</td>
<td>Partial match: card member’s name does not match, but street address and postal code match. Returned only for the American Express card type.</td>
</tr>
<tr>
<td>I</td>
<td>No match: address not verified. Returned only for Visa cards not issued in the U.S.</td>
</tr>
<tr>
<td>K</td>
<td>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.</td>
</tr>
</tbody>
</table>

Table 72 Types of AVS Codes (Continued)

Table 73 AVS Codes
### Table 73 AVS Codes (Continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>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.</td>
</tr>
<tr>
<td>M</td>
<td>See the entry for D &amp; M.</td>
</tr>
</tbody>
</table>
| 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 "Payment Processors," page 25.

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 74  Card Types for Authorizations and Credits

<table>
<thead>
<tr>
<th>Value</th>
<th>Card Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Visa</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Note Ingenico ePayments was previously called Global Collect.</td>
</tr>
<tr>
<td>002</td>
<td>MasterCard, Eurocard¹: European regional brand of MasterCard</td>
</tr>
<tr>
<td>003</td>
<td>American Express</td>
</tr>
<tr>
<td>004</td>
<td>Discover</td>
</tr>
<tr>
<td>005</td>
<td>Diners Club: see &quot;Discover Acquisitions and Alliances,&quot; page 17.</td>
</tr>
<tr>
<td>006</td>
<td>Carte Blanche¹</td>
</tr>
<tr>
<td>007</td>
<td>JCB¹</td>
</tr>
<tr>
<td>014</td>
<td>EnRoute¹</td>
</tr>
<tr>
<td>021</td>
<td>JAL¹</td>
</tr>
<tr>
<td>024</td>
<td>Maestro (UK Domestic)¹</td>
</tr>
<tr>
<td>027</td>
<td>NICOS house card¹</td>
</tr>
<tr>
<td>031</td>
<td>Delta¹: Use this value only for Ingenico ePayments. For other processors, use 001 for all Visa card types.</td>
</tr>
<tr>
<td></td>
<td>Note Ingenico ePayments was previously called Global Collect.</td>
</tr>
</tbody>
</table>

¹ For this card type, you must include the `card_type` field in your request for an authorization or a stand-alone credit.
Table 74  Card Types for Authorizations and Credits (Continued)

<table>
<thead>
<tr>
<th>Value</th>
<th>Card Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>033</td>
<td>Visa Electron¹: Use this value only for Ingenico ePayments. For other processors, use 001 for all Visa card types.</td>
</tr>
<tr>
<td></td>
<td>Note Ingenico ePayments was previously called Global Collect.</td>
</tr>
<tr>
<td>034</td>
<td>Dankort¹</td>
</tr>
<tr>
<td>036</td>
<td>Carte Bleue¹</td>
</tr>
<tr>
<td>037</td>
<td>Carta Si¹</td>
</tr>
<tr>
<td>039</td>
<td>Encoded account number¹</td>
</tr>
<tr>
<td>040</td>
<td>UATP¹</td>
</tr>
<tr>
<td>042</td>
<td>Maestro (International)¹</td>
</tr>
<tr>
<td>050</td>
<td>Hipercard</td>
</tr>
<tr>
<td>051</td>
<td>Aura</td>
</tr>
<tr>
<td>053</td>
<td>ORICO house card¹</td>
</tr>
<tr>
<td>054</td>
<td>Elo</td>
</tr>
</tbody>
</table>

¹ For this card type, you must include the card_type field in your request for an authorization or a stand-alone credit.
The commerce indicator is a request value that you send in the `ccAuthService_commerceIndicator` and `ccCreditService_commerceIndicator` fields.

### Table 75 Commerce Indicators

<table>
<thead>
<tr>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>install and install_internet</td>
<td>See &quot;Installment Payments,&quot; page 122.</td>
</tr>
<tr>
<td>internet (default)</td>
<td>E-commerce order placed using a web site. On Ingenico ePayments, internet is supported only for Carte Bleue transactions.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> Ingenico ePayments was previously called <em>Global Collect</em>.</td>
</tr>
<tr>
<td>moto</td>
<td>Mail order or telephone order. Not supported on Cielo or UATP. On Ingenico ePayments, moto is supported only for Carte Bleue transactions.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> Ingenico ePayments was previously called <em>Global Collect</em>.</td>
</tr>
<tr>
<td>moto_cc</td>
<td>Mail order or telephone order from a call center. This value is available only on the Asia, Middle East, and Africa Gateway.</td>
</tr>
<tr>
<td></td>
<td>• recurring—U.S. transaction or non-U.S. mail order / telephone order (MOTO) transaction</td>
</tr>
<tr>
<td></td>
<td>• recurring_internet—non-U.S. e-commerce (internet) transaction</td>
</tr>
<tr>
<td>retail</td>
<td>See <em>Card-Present Processing Using the Simple Order API</em>.</td>
</tr>
</tbody>
</table>
Table 75  Commerce Indicators (Continued)

<table>
<thead>
<tr>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
</table>
The CVN code is returned in `ccAuthReply_cvCode` in the authorization reply message. See "Card Verification Numbers (CVNs)," page 78, for a description of CVN.

### Table 76 CVN Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>The transaction was determined to be suspicious by the issuing bank.</td>
</tr>
<tr>
<td>I</td>
<td>The CVN failed the processor's data validation check.</td>
</tr>
<tr>
<td>M</td>
<td>The CVN matched.</td>
</tr>
<tr>
<td>N</td>
<td>The CVN did not match.</td>
</tr>
<tr>
<td>P</td>
<td>The CVN was not processed by the processor for an unspecified reason.</td>
</tr>
<tr>
<td>S</td>
<td>The CVN is on the card but was not included in the request.</td>
</tr>
<tr>
<td>U</td>
<td>Card verification is not supported by the issuing bank.</td>
</tr>
<tr>
<td>X</td>
<td>Card verification is not supported by the payment card company.</td>
</tr>
<tr>
<td>1</td>
<td>Card verification is not supported for this processor or card type.</td>
</tr>
<tr>
<td>2</td>
<td>An unrecognized result code was returned by the processor for the card verification response.</td>
</tr>
<tr>
<td>3</td>
<td>No result code was returned by the processor.</td>
</tr>
</tbody>
</table>
CyberSource through VisaNet Acquirers

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
- 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
- Bank Muscat of Oman: Visa, MasterCard, American Express, Diners Club
- Bank of Ayudhya (BAY): Visa, MasterCard, JCB
- Bank of China (BOC): Visa, MasterCard

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.

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.
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.

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.
ICICI of India: Visa, MasterCard

Korea Exchange Bank (KEB): Visa, MasterCard, JCB

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
- 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

CyberSource through VisaNet cannot process domestic transactions in Russia. CyberSource through VisaNet can process only cross-border transactions. A cross-border transaction in Russia is a transaction for which the merchant, acquirer, or issuer is not in Russia.

- Westpac: Visa, MasterCard
Wing Hang Bank: Visa, MasterCard

Wing Lung Bank: Visa, MasterCard
See "Electronic Verification (EV)," page 76, for a list of the fields in which the Electronic Verification response codes are returned. The following table describes the mapped response codes.

**Table 77  Electronic Verification Mapped Response Codes**

<table>
<thead>
<tr>
<th>Response Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>First name matches; last name does not match.</td>
</tr>
<tr>
<td>L</td>
<td>Last name matches; first name does not match.</td>
</tr>
<tr>
<td>M</td>
<td>First name and last name match.</td>
</tr>
<tr>
<td>N</td>
<td>No, the data does not match.</td>
</tr>
<tr>
<td>P</td>
<td>The processor did not return verification information.</td>
</tr>
<tr>
<td>R</td>
<td>The system is unavailable, so retry.</td>
</tr>
<tr>
<td>S</td>
<td>The verification service is not available.</td>
</tr>
<tr>
<td>U</td>
<td>Verification information is not available.</td>
</tr>
<tr>
<td>Y</td>
<td>Yes, the data matches.</td>
</tr>
<tr>
<td>1</td>
<td>Electronic verification did not generate a response.</td>
</tr>
<tr>
<td>2</td>
<td>The processor returned an unrecognized value.</td>
</tr>
</tbody>
</table>
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.

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 78 Discretionary Data Format for Issuer-Funded Installment Payments with Visa Guatemala**

<table>
<thead>
<tr>
<th>Position (Character or Digit #)</th>
<th>Number of Characters or Digits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>2</td>
<td>Prefix. Set this value to VC.</td>
</tr>
<tr>
<td>3-4</td>
<td>2</td>
<td>Total number of installments.</td>
</tr>
<tr>
<td>5-16</td>
<td>12</td>
<td>Total amount.</td>
</tr>
</tbody>
</table>
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 79  Discretionary Data Format for Issuer-Funded Installment Payments with VisaNet Uruguay

<table>
<thead>
<tr>
<th>Position (Character or Digit #)</th>
<th>Number of Characters or Digits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>2</td>
<td>Plan type. Set this value to 00. Specifies that the transaction is an e-commerce transaction.</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Grace period. Number of months that the issuer waits before charging customers.</td>
</tr>
<tr>
<td>4-5</td>
<td>2</td>
<td>Total number of installments. Possible values: 00 through 99.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>POS entry mode. Set this value to 0. Specifies that the transaction is an e-commerce transaction.</td>
</tr>
<tr>
<td>7-15</td>
<td>9</td>
<td>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.</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>Financial inclusion law indicator. Possible values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ 1: Law 17934</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ 2: Law 18099</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ 3: Asignaciones familiares (AFAM) (family allowance program)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ 4: Real state law</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ 5: Law 19210</td>
</tr>
<tr>
<td>17-28</td>
<td>12</td>
<td>Financial inclusion amount. This value is the amount the bank returns to the cardholder.</td>
</tr>
<tr>
<td>29-35</td>
<td>7</td>
<td>Merchant-generated invoice number.</td>
</tr>
</tbody>
</table>
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 21.

**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 25, 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 39.

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 66.

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:


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 133.
Appendix L  Frequently Asked Questions

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

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.
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 388.

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 385.
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 386
- "Chargeback Reason Codes for MasterCard," page 387

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.

## Representsments

When you or Ingenico ePayments disputes the legitimacy of a chargeback, a *representation* case is initiated:

1. Ingenico ePayments automatically initiates a representation case if your customer initiates a chargeback for a transaction that has already been refunded by you.

   As in all representation 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 representation 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:

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>
<thead>
<tr>
<th>Reason Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Services Not Provided or Merchandise Not Received</td>
</tr>
<tr>
<td>31</td>
<td>Error in Addition</td>
</tr>
<tr>
<td>41</td>
<td>Cancelled Recurring Transaction</td>
</tr>
<tr>
<td>50</td>
<td>Credit Posted as Purchase</td>
</tr>
<tr>
<td>53</td>
<td>Not as Described</td>
</tr>
<tr>
<td>56</td>
<td>Defective Merchandise</td>
</tr>
<tr>
<td>60</td>
<td>Requested Copy Illegible</td>
</tr>
<tr>
<td>61</td>
<td>Fraudulent Mail/Phone Order Transaction</td>
</tr>
<tr>
<td>71</td>
<td>Authorization Request Declined / Authorization Declined</td>
</tr>
<tr>
<td>72</td>
<td>No Authorization / Transaction Exceeds Floor Limit</td>
</tr>
<tr>
<td>74</td>
<td>Late Presentment</td>
</tr>
<tr>
<td>75</td>
<td>Cardholder Does Not Recognize the Transaction</td>
</tr>
<tr>
<td>79</td>
<td>Requested Transaction Information Not Received</td>
</tr>
<tr>
<td>82</td>
<td>Duplicate Processing</td>
</tr>
<tr>
<td>83</td>
<td>Nonpossession of Card</td>
</tr>
<tr>
<td>85</td>
<td>Credit Not Processed</td>
</tr>
<tr>
<td>86</td>
<td>Paid by Other Means</td>
</tr>
<tr>
<td>90</td>
<td>Nonreceipt of Merchandise</td>
</tr>
</tbody>
</table>
### Chargeback Reason Codes for MasterCard

<table>
<thead>
<tr>
<th>Reason Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Requested Transaction Data Not Received</td>
</tr>
<tr>
<td>02</td>
<td>Requested Item Illegible</td>
</tr>
<tr>
<td>08</td>
<td>Requested / Required Authorization Not Obtained</td>
</tr>
<tr>
<td>12</td>
<td>Account Number Not on File</td>
</tr>
<tr>
<td>31</td>
<td>Transaction Amount Differs</td>
</tr>
<tr>
<td>34</td>
<td>Duplicate Processing</td>
</tr>
<tr>
<td>35</td>
<td>Card Not Valid or Expired</td>
</tr>
<tr>
<td>37</td>
<td>Fraudulent Mail/Phone Order Transaction</td>
</tr>
<tr>
<td>41</td>
<td>Cancelled Recurring Transaction</td>
</tr>
<tr>
<td>42</td>
<td>Late Presentment</td>
</tr>
<tr>
<td>47</td>
<td>Exceeds Floor Limit, Not Authorized, and Fraudulent Transactions</td>
</tr>
<tr>
<td>50</td>
<td>Credit Posted as a Debit</td>
</tr>
<tr>
<td>53</td>
<td>Cardholder Dispute Defective / Not as Described</td>
</tr>
<tr>
<td>54</td>
<td>Cardholder Dispute-Not Elsewhere (U.S. only)</td>
</tr>
<tr>
<td>55</td>
<td>Nonreceipt of Merchandise</td>
</tr>
<tr>
<td>59</td>
<td>Services Not Rendered</td>
</tr>
<tr>
<td>60</td>
<td>Credit Not Processed</td>
</tr>
<tr>
<td>63</td>
<td>Cardholder Does Not Recognize - Potential Fraud</td>
</tr>
</tbody>
</table>
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 : XXXXXXXXXXX
Credit Card Number : ***********XXXX
External Order Number : XXXXXXXXXX
Merchant Reference :
Merchant Number : XXXXXXXXXXXX
Contract-ID : XXXX

Transaction history

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Curr</th>
<th>Amount</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original order amount</td>
<td>USD</td>
<td>XX.XX</td>
<td>DD-MM-YYYY</td>
</tr>
<tr>
<td>Total</td>
<td>USD</td>
<td>XX.XX</td>
<td></td>
</tr>
<tr>
<td>Amount currently in question</td>
<td>USD</td>
<td>XX.XX</td>
<td></td>
</tr>
</tbody>
</table>
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 394.
  
  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.
The following table lists the values you can use for the product code in the `item_#_.productCode` request field.

### Table 80  Product Codes

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>adult_content</td>
<td>Adult content.</td>
</tr>
<tr>
<td>coupon</td>
<td>Coupon applied to the entire order.</td>
</tr>
<tr>
<td>default</td>
<td>Default value for the product code. CyberSource uses default when a request message does not include a value for the product code.</td>
</tr>
<tr>
<td>electronic_good</td>
<td>Electronic product other than software.</td>
</tr>
<tr>
<td>electronic_software</td>
<td>Software distributed electronically rather than on disks or other media.</td>
</tr>
<tr>
<td>gift_certificate</td>
<td>Gift certificate.</td>
</tr>
<tr>
<td>handling_only</td>
<td>Fee that you charge your customer to cover your administrative selling costs.</td>
</tr>
<tr>
<td>service</td>
<td>Service that you perform for your customer.</td>
</tr>
<tr>
<td>shipping_and_handling</td>
<td>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.</td>
</tr>
<tr>
<td>shipping_only</td>
<td>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.</td>
</tr>
<tr>
<td>subscription</td>
<td>Subscription to a web site or other content.</td>
</tr>
</tbody>
</table>
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

You will probably not receive all the codes in the following table.

**Note**

In the following table, the carat character ( ^ ) indicates a space.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A^</td>
<td>Visa Traditional</td>
<td>L^</td>
<td>Electron</td>
</tr>
<tr>
<td>AX</td>
<td>American Express</td>
<td>M^</td>
<td>MasterCard/Eurocard and Diners</td>
</tr>
<tr>
<td>B^</td>
<td>Visa Traditional Rewards</td>
<td>N^</td>
<td>Visa Platinum</td>
</tr>
<tr>
<td>C^</td>
<td>Visa Signature</td>
<td>N1</td>
<td>Visa Rewards</td>
</tr>
<tr>
<td>D^</td>
<td>Visa Signature Preferred</td>
<td>N2</td>
<td>Visa Select</td>
</tr>
<tr>
<td>DI</td>
<td>Discover</td>
<td>P^</td>
<td>Visa Gold</td>
</tr>
<tr>
<td>DN</td>
<td>Diners Club International</td>
<td>Q^</td>
<td>Private Label</td>
</tr>
<tr>
<td>E^</td>
<td>Reserved</td>
<td>Q1</td>
<td>Private Label Prepaid</td>
</tr>
<tr>
<td>F^</td>
<td>Visa Classic</td>
<td>Q2</td>
<td>Private Label Basic</td>
</tr>
<tr>
<td>G^</td>
<td>Visa Business</td>
<td>Q3</td>
<td>Private Label Standard</td>
</tr>
<tr>
<td>G1</td>
<td>Visa Signature Business</td>
<td>Q4</td>
<td>Private Label Enhanced</td>
</tr>
</tbody>
</table>
Appendix P  Product IDs

Table 81  Visa Product IDs (Continued)

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2</td>
<td>Visa Business Check Card</td>
<td>Q5</td>
<td>Private Label Specialized</td>
</tr>
<tr>
<td>G3</td>
<td>Visa Business Enhanced</td>
<td>Q6</td>
<td>Private Label Premium</td>
</tr>
<tr>
<td>G4</td>
<td>Visa Infinite Business</td>
<td>R^</td>
<td>Proprietary</td>
</tr>
<tr>
<td>H^</td>
<td>Visa Check Card</td>
<td>S^</td>
<td>Visa Purchasing</td>
</tr>
<tr>
<td>I^</td>
<td>Visa Infinite</td>
<td>S1</td>
<td>Visa Purchasing with Fleet</td>
</tr>
<tr>
<td>I1</td>
<td>Visa Infinite Privilege</td>
<td>S2</td>
<td>Visa GSA Purchasing</td>
</tr>
<tr>
<td>I2</td>
<td>Visa Ultra High Net Worth</td>
<td>S3</td>
<td>Visa GSA Purchasing with Fleet</td>
</tr>
<tr>
<td>J^</td>
<td>Reserved</td>
<td>S4</td>
<td>Government Services Loan</td>
</tr>
<tr>
<td>J1</td>
<td>Visa General Prepaid</td>
<td>S5</td>
<td>Commercial Transport EBT</td>
</tr>
<tr>
<td>J2</td>
<td>Visa Prepaid Gift</td>
<td>S6</td>
<td>Business Loan</td>
</tr>
<tr>
<td>J3</td>
<td>Visa Prepaid Healthcare</td>
<td>T^</td>
<td>Reserved/Interlink</td>
</tr>
<tr>
<td>J4</td>
<td>Visa Prepaid Commercial</td>
<td>U^</td>
<td>Visa TravelMoney</td>
</tr>
<tr>
<td>JC</td>
<td>JCB</td>
<td>V^</td>
<td>V Pay</td>
</tr>
<tr>
<td>K^</td>
<td>Visa Corporate T&amp;E</td>
<td>W^ – Z^</td>
<td>Reserved</td>
</tr>
<tr>
<td>K1</td>
<td>Visa GSA Corporate T&amp;E</td>
<td>0^ – 9^</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

Table 82  MasterCard Product IDs

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBL</td>
<td>Carte Blanche</td>
<td>MNF</td>
<td>MasterCard Public Sector Commercial Card</td>
</tr>
<tr>
<td>DAG</td>
<td>Gold Debit MasterCard Salary</td>
<td>MOC</td>
<td>Standard Maestro Social</td>
</tr>
<tr>
<td>DAP</td>
<td>Platinum Debit MasterCard Salary</td>
<td>MPA</td>
<td>Prepaid MasterCard Payroll Card</td>
</tr>
<tr>
<td>DAS</td>
<td>Standard Debit MasterCard Salary</td>
<td>MPB</td>
<td>MasterCard Preferred BusinessCard</td>
</tr>
<tr>
<td>DCC</td>
<td>Diners Club</td>
<td>MPC</td>
<td>MasterCard Professional Card</td>
</tr>
<tr>
<td>DOS</td>
<td>Standard Debit MasterCard Social</td>
<td>MPF</td>
<td>Prepaid MasterCard Gift Card</td>
</tr>
<tr>
<td>JCB</td>
<td>Japanese Credit Bureau</td>
<td>MPG</td>
<td>Prepaid MasterCard Consumer Reloadable Card</td>
</tr>
<tr>
<td>MAB</td>
<td>World Elite MasterCard for Business</td>
<td>MPJ</td>
<td>Prepaid Debit MasterCard Card Gold</td>
</tr>
</tbody>
</table>

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 82  MasterCard Product IDs (Continued)

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC</td>
<td>MasterCard Corporate World Elite</td>
<td>MPK</td>
<td>Prepaid MasterCard Government Commercial Card</td>
</tr>
<tr>
<td>MAP</td>
<td>MasterCard Commercial Payments Account product</td>
<td>MPL</td>
<td>Platinum MasterCard Card</td>
</tr>
<tr>
<td>MAQ</td>
<td>MasterCard Prepaid Commercial Payments Account</td>
<td>MPM</td>
<td>Prepaid MasterCard Consumer Promotion Card</td>
</tr>
<tr>
<td>MAV</td>
<td>MasterCard Activation Verification</td>
<td>MPN</td>
<td>Prepaid MasterCard Insurance Card</td>
</tr>
<tr>
<td>MBB</td>
<td>MasterCard Prepaid Consumer</td>
<td>MPO</td>
<td>Prepaid MasterCard Other Card</td>
</tr>
<tr>
<td>MBC</td>
<td>MasterCard Prepaid Voucher</td>
<td>MPR</td>
<td>Prepaid MasterCard Travel Card</td>
</tr>
<tr>
<td>MBD</td>
<td>Deferred Debit MasterCard BusinessCard Card</td>
<td>MPT</td>
<td>Prepaid MasterCard Teen Card</td>
</tr>
<tr>
<td>MBE</td>
<td>MasterCard Electronic Business Card</td>
<td>MPV</td>
<td>Prepaid MasterCard Government Benefit Card</td>
</tr>
<tr>
<td>MBP</td>
<td>MasterCard Corporate Prepaid</td>
<td>MPW</td>
<td>Prepaid MasterCard Corporate Card</td>
</tr>
<tr>
<td>MBT</td>
<td>MasterCard Corporate Prepaid Travel</td>
<td>MPX</td>
<td>Prepaid MasterCard Flex Benefit Card</td>
</tr>
<tr>
<td>MCB</td>
<td>MasterCard BusinessCard Card/ MasterCard Corporate Card</td>
<td>MPY</td>
<td>Prepaid MasterCard Employee Incentive Card</td>
</tr>
<tr>
<td>MCC</td>
<td>MasterCard Card</td>
<td>MPZ</td>
<td>Prepaid MasterCard Emergency Assistance Card</td>
</tr>
<tr>
<td>MCE</td>
<td>MasterCard Electronic Card</td>
<td>MRB</td>
<td>Prepaid MasterCard Electronic BusinessCard</td>
</tr>
<tr>
<td>MCF</td>
<td>MasterCard Electronic Fleet Card</td>
<td>MRC</td>
<td>Prepaid MasterCard Electronic Card</td>
</tr>
<tr>
<td>MCG</td>
<td>Gold MasterCard Card</td>
<td>MRG</td>
<td>Prepaid MasterCard Card Outside U.S.</td>
</tr>
<tr>
<td>MCM</td>
<td>MasterCard Corporate Meeting Card</td>
<td>MRH</td>
<td>MasterCard Platinum Prepaid Travel Card</td>
</tr>
<tr>
<td>MCO</td>
<td>MasterCard Corporate</td>
<td>MRJ</td>
<td>Prepaid MasterCard Gold Card</td>
</tr>
<tr>
<td>MCP</td>
<td>MasterCard Corporate Purchasing Card</td>
<td>MRK</td>
<td>Prepaid MasterCard Electronic Commercial</td>
</tr>
<tr>
<td>MCS</td>
<td>MasterCard Standard Card</td>
<td>MRL</td>
<td>Prepaid MasterCard Electronic Commercial</td>
</tr>
<tr>
<td>MCW</td>
<td>World MasterCard Card</td>
<td>MRS</td>
<td>Prepaid MasterCard ISIC Student Card</td>
</tr>
<tr>
<td>MCX</td>
<td>MasterCard Card (international use)</td>
<td>MRW</td>
<td>Prepaid MasterCard BusinessCard Credit Outside U.S.</td>
</tr>
<tr>
<td>MDB</td>
<td>Debit MasterCard BusinessCard Card</td>
<td>MSI</td>
<td>Maestro point-of-sale debit program</td>
</tr>
<tr>
<td>MDG</td>
<td>Debit Gold MasterCard</td>
<td>MTP</td>
<td>MasterCard Platinum Prepaid Travel Card</td>
</tr>
<tr>
<td>MSI</td>
<td>Maestro point-of-sale debit program</td>
<td>MR</td>
<td>Prepaid MasterCard ISIC Student Card</td>
</tr>
</tbody>
</table>
### Table 82  MasterCard Product IDs (Continued)

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDL</td>
<td>Business Debit Other Embossed</td>
<td>MUS</td>
<td>Prepaid MasterCard Unembossed U.S.</td>
</tr>
<tr>
<td>MDM</td>
<td>Middle Market Fleet Card</td>
<td>MWB</td>
<td>World MasterCard for Business</td>
</tr>
<tr>
<td>MDN</td>
<td>Middle Market Purchasing Card</td>
<td>MWE</td>
<td>MasterCard World Elite</td>
</tr>
<tr>
<td>MDO</td>
<td>Debit MasterCard Other</td>
<td>MWO</td>
<td>MasterCard Corporate World</td>
</tr>
<tr>
<td>MDP</td>
<td>Debit MasterCard Platinum</td>
<td>PRO</td>
<td>Proprietary Card</td>
</tr>
<tr>
<td>MDQ</td>
<td>Middle Market Corporate Card</td>
<td>PVL</td>
<td>Private label card</td>
</tr>
<tr>
<td>MDS</td>
<td>Debit MasterCard</td>
<td>SAG</td>
<td>Gold MasterCard Salary-Immediate Debit</td>
</tr>
<tr>
<td>MDT</td>
<td>MasterCard Business Debit</td>
<td>SAL</td>
<td>Standard Maestro Salary</td>
</tr>
<tr>
<td>MDW</td>
<td>MasterCard Black Debit/World Elite</td>
<td>SAP</td>
<td>Platinum MasterCard Salary-Immediate Debit</td>
</tr>
<tr>
<td>MEB</td>
<td>MasterCard Executive BusinessCard</td>
<td>SAS</td>
<td>Standard MasterCard Salary-Immediate Debit</td>
</tr>
<tr>
<td>MEC</td>
<td>MasterCard Electronic Commercial</td>
<td>SOS</td>
<td>Standard MasterCard Social-Immediate Debit</td>
</tr>
<tr>
<td>MEF</td>
<td>MasterCard Electronic Payment</td>
<td>SUR</td>
<td>Prepaid MasterCard Unembossed Outside U.S.</td>
</tr>
<tr>
<td>MEO</td>
<td>MasterCard Corporate Executive</td>
<td>TBE</td>
<td>Business-Immediate Debit</td>
</tr>
<tr>
<td>MET</td>
<td>Titanium Debit MasterCard</td>
<td>TCB</td>
<td>MasterCard Business Card-Immediate Debit</td>
</tr>
<tr>
<td>MGF</td>
<td>MasterCard Government Commercial</td>
<td>TCF</td>
<td>MasterCard Fleet Card-Immediate Debit</td>
</tr>
<tr>
<td>MHA</td>
<td>MasterCard Healthcare Prepaid</td>
<td>TCO</td>
<td>MasterCard Corporate-Immediate Debit</td>
</tr>
<tr>
<td>MHB</td>
<td>MasterCard HSA Substantiated</td>
<td>TCP</td>
<td>MasterCard Purchasing Card-Immediate Debit</td>
</tr>
<tr>
<td>MHC</td>
<td>MasterCard Healthcare Credit</td>
<td>TDN</td>
<td>Middle Market MasterCard Purchasing Card-Immediate Debit</td>
</tr>
<tr>
<td>MHH</td>
<td>MasterCard HSA Non-substantiated</td>
<td>TEB</td>
<td>MasterCard Executive BusinessCard Card-Immediate Debit</td>
</tr>
<tr>
<td>MIA</td>
<td>MasterCard Unembossed Prepaid</td>
<td>TEC</td>
<td>MasterCard Electronic Commercial-Immediate Debit</td>
</tr>
<tr>
<td>MIK</td>
<td>MasterCard Electronic Consumer</td>
<td>TEO</td>
<td>MasterCard Corporate Executive Card-Immediate Debit</td>
</tr>
<tr>
<td>MIL</td>
<td>MasterCard Unembossed Prepaid</td>
<td>TLA</td>
<td>MasterCard Central Travel Solutions Air-Immediate Debit</td>
</tr>
<tr>
<td>MIP</td>
<td>MasterCard Debit Prepaid Student</td>
<td>TNF</td>
<td>MasterCard Public Sector Commercial Card-Immediate Debit</td>
</tr>
</tbody>
</table>

Value Description: Value Description
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLA</td>
<td>MasterCard Central Travel Solutions Air</td>
<td>TPB</td>
<td>MasterCard Preferred Business Card-Immediate Debit</td>
</tr>
<tr>
<td>MLC</td>
<td>MasterCard Micro-Business Card</td>
<td>TPC</td>
<td>MasterCard Professional Card-Immediate Debit</td>
</tr>
<tr>
<td>MLD</td>
<td>MasterCard Distribution Card</td>
<td>WDR</td>
<td>World Debit MasterCard Rewards</td>
</tr>
<tr>
<td>MLL</td>
<td>MasterCard Central Travel Solutions Land</td>
<td>WMR</td>
<td>World MasterCard Rewards</td>
</tr>
</tbody>
</table>

Table 82  MasterCard Product IDs (Continued)
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:

- 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 83  Reason Codes**

<table>
<thead>
<tr>
<th>Reason Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Successful transaction.</td>
</tr>
</tbody>
</table>

* AIBMS: If `ccAuthReply_processorResponse` is 08, you can accept the transaction if the customer provides you with identification.

<table>
<thead>
<tr>
<th>101</th>
<th>The request is missing one or more required fields.</th>
</tr>
</thead>
</table>

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*.

<table>
<thead>
<tr>
<th>102</th>
<th>One or more fields in the request contains invalid data.</th>
</tr>
</thead>
</table>

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*. |
### Table 83  Reason Codes (Continued)

<table>
<thead>
<tr>
<th>Reason Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>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.</td>
</tr>
<tr>
<td>110</td>
<td>Only a partial amount was approved. Possible action: see &quot;Partial Authorizations,&quot; page 86.</td>
</tr>
<tr>
<td>150</td>
<td>General system failure. See the documentation for your CyberSource client for information about handling retries in the case of system errors.</td>
</tr>
<tr>
<td>151</td>
<td>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.</td>
</tr>
<tr>
<td>152</td>
<td>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.</td>
</tr>
<tr>
<td>200</td>
<td>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.</td>
</tr>
<tr>
<td>201</td>
<td>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.</td>
</tr>
<tr>
<td>202</td>
<td>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.</td>
</tr>
<tr>
<td>203</td>
<td>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.</td>
</tr>
<tr>
<td>204</td>
<td>Insufficient funds in the account. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>Reason Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>205</td>
<td>Stolen or lost card. Possible action: Review this transaction manually to ensure that you submitted the correct information.</td>
</tr>
<tr>
<td>207</td>
<td>Issuing bank unavailable. Possible action: Wait a few minutes and resend the request.</td>
</tr>
<tr>
<td>208</td>
<td>Inactive card or card not authorized for card-not-present transactions. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>209</td>
<td>CVN did not match. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>210</td>
<td>The card has reached the credit limit. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>211</td>
<td>Invalid CVN. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>221</td>
<td>The customer matched an entry on the processor's negative file. Possible action: Review the order and contact the payment processor.</td>
</tr>
<tr>
<td>230</td>
<td>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.</td>
</tr>
<tr>
<td>231</td>
<td>Invalid account number. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>232</td>
<td>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.</td>
</tr>
<tr>
<td>233</td>
<td>General decline by the processor. Possible action: Request a different card or other form of payment.</td>
</tr>
<tr>
<td>234</td>
<td>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.</td>
</tr>
<tr>
<td>235</td>
<td>The requested capture amount exceeds the originally authorized amount. Possible action: Issue a new authorization and capture request for the new amount.</td>
</tr>
<tr>
<td>236</td>
<td>Processor failure. Possible action: Wait a few minutes and resend the request.</td>
</tr>
<tr>
<td>237</td>
<td>The authorization has already been reversed. Possible action: No action required.</td>
</tr>
<tr>
<td>Reason Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>238</td>
<td>The authorization has already been captured. Possible action: No action required.</td>
</tr>
<tr>
<td>239</td>
<td>The requested transaction amount must match the previous transaction amount. Possible action: Correct the amount and resend the request.</td>
</tr>
<tr>
<td>240</td>
<td>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.</td>
</tr>
<tr>
<td>241</td>
<td>The request ID is invalid. Possible action: Request a new authorization, and if successful, proceed with the capture.</td>
</tr>
<tr>
<td>242</td>
<td>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.</td>
</tr>
<tr>
<td>243</td>
<td>The transaction has already been settled or reversed. Possible action: No action required.</td>
</tr>
</tbody>
</table>
| 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. |
The Verified by Visa response code is returned in `ccAuthReply_cavvResponseCode` in the reply message for an authorization request. See "Verified by Visa," page 174, for a description of Verified by Visa.

### Table 84  Verified by Visa Response Codes

<table>
<thead>
<tr>
<th>Response Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>CAVV not validated because erroneous data was submitted.</td>
</tr>
<tr>
<td>1</td>
<td>CAVV failed validation and authentication.</td>
</tr>
<tr>
<td>2</td>
<td>CAVV passed validation and authentication.</td>
</tr>
<tr>
<td>3</td>
<td>CAVV passed the validation attempt.</td>
</tr>
<tr>
<td>4</td>
<td>CAVV failed the validation attempt.</td>
</tr>
<tr>
<td>6</td>
<td>CAVV not validated because the issuer does not participate.</td>
</tr>
<tr>
<td>7</td>
<td>CAVV failed the validation attempt and the issuer is available.</td>
</tr>
<tr>
<td>8</td>
<td>CAVV passed the validation attempt and the issuer is available.</td>
</tr>
<tr>
<td>9</td>
<td>CAVV failed the validation attempt and the issuer is not available.</td>
</tr>
<tr>
<td>A</td>
<td>CAVV passed the validation attempt and the issuer is not available.</td>
</tr>
<tr>
<td>B</td>
<td>CAVV passed the validation with information only; no liability shift.</td>
</tr>
<tr>
<td>C</td>
<td>CAVV attempted but not validated; issuer did not return CAVV code.</td>
</tr>
<tr>
<td>D</td>
<td>CAVV not validated or authenticated; issuer did not return CAVV code.</td>
</tr>
<tr>
<td>I</td>
<td>Invalid security data.</td>
</tr>
<tr>
<td>U</td>
<td>Issuer does not participate or 3-D secure data was not used.</td>
</tr>
<tr>
<td>99</td>
<td>An unknown value was returned from the processor.</td>
</tr>
</tbody>
</table>
The wallet type is sent in the `wallet_type` field in authorization requests and credit requests. Possible values 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 consumer-controlled device at a contactless card reader. This value is supported only for card-present MasterPass transactions on CyberSource through VisaNet.

- **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, and FDC Nashville Global.

For additional information about the `wallet_type` field, see Appendix A, "API Fields," on page 221.
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</tr>
</thead>
</table>

**FDC Germany**

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<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAV</td>
<td>45</td>
</tr>
<tr>
<td>authorizations</td>
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