

Level II and Level III Processing Using the Simple Order API

Supplement to *Credit Card Services
Using the Simple Order API*

March 2019

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the power of payment

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Recent Revisions to This Document

Release	Changes
March 2019	Added notes about Level III transactions. See "Prerequisites for Level III Processing," page 11 , and "About Level III Data," page 12 .
December 2018	This revision contains only editorial changes and no technical updates.
September 2018	CyberSource through VisaNet: added the following acquirers. See Chapter 4, "CyberSource through VisaNet: Level II and Level III," on page 44 . <ul style="list-style-type: none"> ■ Banco Safra ■ BC Card Co., Ltd. ■ Vietnam Technological and Commercial Joint-stock Bank
June 2018	Added new Processor: Elavon Americas. See "Elavon Americas: Level II and Level III," page 59 . Litle: changed processor name to <i>Worldpay VAP</i> . See "Worldpay VAP: Level II and Level III," page 152 .
April 2018	GPN: updated the descriptions for the following fields, which are listed in "Order-Level Fields," page 101 , and "Item-Level Fields," page 104 . <ul style="list-style-type: none"> ■ invoiceHeader_summaryCommodityCode ■ item_#_commodityCode ■ item_#_discountAmount ■ purchaseTotals_discountAmount
March 2018	OmniPay Direct: updated the length of the invoiceHeader_userPO field for Visa. See "Order-Level Fields," page 109 .

About This Guide

Audience and Purpose

This guide is written for application developers who want to use the CyberSource Simple Order API to integrate credit card processing with Level II or Level III data 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 with Level II or Level III data 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.

The following text conventions are used in this document:

Convention	Meaning
bold	Field and service names in text; for example: Include the ccCaptureService_run field.
<i>italic</i>	Titles of documents
screen text	<ul style="list-style-type: none"> ■ XML elements ■ Code examples ■ Values for API fields; for example: Set the ccCaptureService_run field to <code>true</code>.

Related Documentation

- *Getting Started with CyberSource Advanced for the Simple Order API* ([PDF](#) | [HTML](#)) describes how to get started using the Simple Order API.
- *Credit Card Services Using the Simple Order API* ([PDF](#) | [HTML](#)) describes how to integrate CyberSource payment processing services into your business.

Refer to the Support Center for complete CyberSource technical documentation:

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

Customer Support

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

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

Introduction to Level II and Level III Processing

This addendum to *Credit Card Services Using the Simple Order API* describes:

- Level II processing for American Express, Visa, and Mastercard
- Level III processing for Visa and Mastercard

After this introductory chapter, there is a chapter for each processor that supports Level II or Level III.



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Prerequisites for Level II Processing

To activate Level II processing for American Express, contact American Express and CyberSource Customer Support.

On OmniPay Direct, when you are ready to go live with Level II processing, contact CyberSource Customer Support to have your account configured to process Level II data. If your account is not enabled, and you try to send Level II transactions on OmniPay Direct, you will receive an error for invalid data.

Prerequisites for Level III Processing

Check with your processor to determine whether you need to add Level III processing to your contract or account setup.

When you are ready to go live with Level III processing, contact CyberSource Customer Support to have your account configured to process Level III data. If your account is not enabled, and you try to send Level III transactions, you will receive an error for invalid data.



Note

Unless otherwise specified, Level III transactions must include Level II data.

Supported Processors and Card Types

Table 1 Supported Processors and Card Types

Processor	Level II Card Types Supported	Level III Card Types Supported
American Express Direct	American Express	American Express
Chase Paymentech Solutions	Visa Mastercard American Express	Visa Mastercard
CyberSource through VisaNet	Visa Mastercard American Express	Visa Mastercard
Elavon Americas	Visa Mastercard	Visa Mastercard
FDC Compass	Visa Mastercard American Express	Visa Mastercard
FDC Nashville Global	Visa Mastercard American Express	Visa Mastercard
FDMS Nashville	Visa Mastercard	None
FDMS South	Visa Mastercard	None
GPN	Visa Mastercard	Visa Mastercard
Worldpay VAP	Visa	Visa
Worldpay VAP was previously called <i>Little</i> .	Mastercard American Express	Mastercard

Table 1 Supported Processors and Card Types (Continued)

Processor	Level II Card Types Supported	Level III Card Types Supported
OmniPay Direct	Visa Mastercard	Visa Mastercard
RBS WorldPay Atlanta	Visa Mastercard	Visa Mastercard
TSYS Acquiring Solutions	Visa Mastercard	Visa Mastercard

About Level II Data

Level II cards, which are also called *Type II cards*, provide customers with additional information on their credit card statements about their purchases. Level II cards enable customers to easily track the amount of sales tax they pay and to reconcile transactions with a unique customer code. There are two categories of Level II cards:

- Business/corporate cards are given by businesses to employees for business-related expenses such as travel and entertainment or for corporate supplies and services.
- Purchase/procurement cards are used by businesses for expenses such as supplies and services. These cards are often used as replacements for purchase orders.

Each processor supports a different set of Level II fields. If your business is not in the United States, you must use additional fields.

About Level III Data

You can provide Level III data for purchase/procurement cards, which are used by businesses for expenses such as supplies and services. These cards are often used as replacements for purchase orders. The Level III data is forwarded to the company that made the purchase, and it enables the company to manage its purchasing activities.



Note

Unless otherwise specified, Level III transactions must include Level II data.

CyberSource Level II and Level III Data Processing

CyberSource does not store the Level II and Level III data. Instead, it functions as a pass-through service for the data. If you request multiple partial captures or credits for an order, you must include the Level II and Level III data in each request.

CyberSource enforces only a minimal level of field validation to avoid interfering with the business policies between you and the companies that purchase your goods and services.



Note

CyberSource temporarily disables your account's Level III processing capability and contacts you if your Level III transactions produce batching errors when the information is sent to your processor. When this happens, your request is not rejected, but the reply message from CyberSource includes a field indicating that the Level III information was ignored and was not sent to the processor.

- For captures, the reply field is **ccCaptureReply_purchasingLevel3Enabled**.
- For credits, the reply field is **ccCreditReply_purchasingLevel3Enabled**.

The possible values for the reply fields are:

- Y: the Level III data was included in the request to the processor.
- N: the Level III data was not included in the request to the processor.

Relaxed Requirements for Address Data and Expiration Date

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

Using Decimals and Strings

CyberSource uses decimal points in all amount and tax rate fields; CyberSource does not use implied decimal points. For example, if the amount of the product being purchased is 29.95, set that field to 29.95.

For tax rates used with Level III transactions, you need to include a decimal point in the value. For example, if a tax rate is 1%, you should set that field to 0.01.

For many of the fields described in this document, Visa and Mastercard permit different lengths for alphanumeric (string) input. CyberSource accepts any length you provide. If the value you provide is longer than the payment card company permits, CyberSource truncates the value, keeping the left-most portion of the value. If the value you provide is shorter than the payment card company requires, CyberSource pads the field before sending it to the processor.

Numbered Elements

The CyberSource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, when a customer order includes more than one item, you must include multiple `<item>` elements in your request. Each item is numbered, starting with 0. The XML schema uses an `id` attribute in the item's opening tag to indicate the number. For example:

```
<item id="0">
```

As a name-value pair field name, this tag is represented as **item_0**. In this portion of the field name, the underscore before the number does not indicate hierarchy in the XML schema. The item fields are generically referred to as **item_#_<element name>** in the documentation.

Below is an example of the numbered `<item>` element and the corresponding name-value pair field names. If you are using SOAP, the client contains a corresponding `Item` class.

Example 1 Numbered XML Schema Element Names and Name-Value Pair Field Names

XML Schema Element Names	Corresponding Name-Value Pair Field Names
<pre><item id="0"> <unitPrice> <quantity> </item></pre>	<pre>item_0_unitPrice item_0_quantity</pre>
<pre><item id="1"> <unitPrice> <quantity> </item></pre>	<pre>item_1_unitPrice item_1_quantity</pre>



Important

When a request is in XML format and includes an `<item>` element, the element must include an `id` attribute. For example: `<item id="0">`.

Requesting Captures and Credits with Level II Data

To include Level II data in a capture or credit request:

Step 1 Authorize a credit card payment.

Step 2 Capture the authorization.

Include the following information in the capture request:

- Level II data: see the chapter in this document for the processor you are using. Also see ["Using Decimals and Strings," page 14](#).



If you omit required Level II fields from a request, the transaction does not result in an error. Instead, it is processed as a regular non-Level II transaction. However, your processor could charge you penalties or increase your fees. Contact your processor to ensure you understand your processor's specific requirements for Level II transactions.

- Basic fields required for every capture request.

For more information, see [Credit Card Services Using the Simple Order API](#).

Step 3 If necessary, credit the payment.

Include the following information in the credit request:

- Level II data: see the chapter in this document for the processor you are using. Also see ["Using Decimals and Strings," page 14](#).



If you omit required Level II fields from a request, the transaction does not result in an error. Instead, it is processed as a regular non-Level II transaction. However, your processor could charge you penalties or increase your fees. Contact your processor to ensure you understand your processor's specific requirements for Level II transactions.



OmniPay Direct does not require Level II data for credits. When you include Level II data in a credit request for OmniPay Direct, CyberSource does not pass the Level II data to OmniPay Direct.



RBS WorldPay Atlanta does not require Level II data for credits.

- Basic fields required for every credit request.

For more information, see [Credit Card Services Using the Simple Order API](#).

Requesting Captures and Credits with Level III Data

To include Level III data in a capture or credit request:

Step 1 Authorize a credit card payment.

CyberSource recommends that for Level III transactions you include the total order amount in the authorization request, even though it is not required. Doing so ensures that CyberSource uses your total order amount and that the capture or credit request total amount matches the original authorization total amount. The field to use in the authorization request is **purchaseTotals_grandTotalAmount**.

Step 2 Capture the authorization.

Include the following information in the capture request:

- Level II and Level III data: see the chapter in this document for the processor you are using. Also see ["Using Decimals and Strings," page 14](#).
- Purchasing level field: the field name is **ccCaptureService_purchasingLevel**. Set this field to 3 to indicate that the request includes Level III data.
- Basic fields required for every capture request.

For more information, see [Credit Card Services Using the Simple Order API](#).

Step 3 For all processors except CyberSource through VisaNet, check the capture reply message.

The reply message includes a field that indicates whether CyberSource sent the Level III information to the processor. The field name is **ccCaptureReply_purchasingLevel3Enabled**. The possible values are:

- Y: the account is enabled for Level III transactions. The Level III data was included in the request to the processor.
- N: the account is not enabled for Level III transactions. The Level III data was not included in the request to the processor.

If your account is not enabled for Level III data or if you did not include the purchasing level field in your request, CyberSource does not include the Level III data in the request sent to the processor.

Step 4 If necessary, credit the payment.

Include the following information in the credit request:

- Level II and Level III data: see the chapter in this document for the processor you are using. Also see ["Using Decimals and Strings," page 14](#).



OmniPay Direct does not require Level III data for credits. When you include Level III data in a credit request for OmniPay Direct, CyberSource does not pass the Level II data to OmniPay Direct.



RBS WorldPay Atlanta does not require Level II data for credits.

- Purchasing level field: the field name is **ccCreditService_purchasingLevel**. Set this field to 3 to indicate that the request includes Level III data.
- Basic fields required for every credit request.

For more information, see [Credit Card Services Using the Simple Order API](#).

Step 5 For all processors except CyberSource through VisaNet, check the credit reply message.

The reply message includes a field that indicates whether CyberSource sent the Level III information to the processor. The field name is **ccCreditReply_purchasingLevel3Enabled**. The possible values are:

- Y: the account is enabled for Level III transactions. The Level III data was included in the request to the processor.
- N: the account is not enabled for Level III transactions. The Level III data was not included in the request to the processor.

If your account is not enabled for Level III data or if you did not include the purchasing level field in your request, CyberSource does not include the Level III data in the request sent to the processor.

American Express Direct: Level II and Level III

Transaction Requirements



Important

When you send a capture or credit request with Level II or Level III data, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Character Set

For Level III transactions, the following characters are supported:

- Uppercase A through Z
- Digits
- Basic punctuation characters such as (! ? # & ' () , - . / : ; ? =) unless specifically noted for individual fields



Important

These characters are not allowed: * > ~

If one of these characters is included in a Level III request on American Express Direct, CyberSource declines the request.

Level II Transactions

On American Express Direct, Level II data is supported only for merchants in the U.S. who are doing business in U.S. dollars.

Level III Transactions



Important

On American Express Direct, Level III data is supported only for merchants in the U.S. who are doing business in U.S. dollars or merchants in Canada who are doing business in Canadian dollars.



Important

For a Level III transaction on American Express Direct, the request must include at least one item.



Important

On American Express Direct, Level III data cannot be combined with airline data or installment data.

Instead of using the ISO8583 standard as the Visa and Mastercard payment card companies chose for Level III processing, the American Express payment card company decided to use the Electronic Data Interchange (EDI) standard, which is used by many businesses for direct business-to-business communication. The EDI standard

electronically replaces various forms, invoices, and related paper documents that can be passed within and between companies for their normal business practices.

For transaction processing with Level III data, American Express supports a format called the EDI 810 Invoice Transaction Set. This format supports billing information for goods and services provided. Furthermore, American Express defined multiple types of Level III transactions and identified additional processing requirements for each type. CyberSource supports one of these types, the “generic” transaction type, which supports the four transaction advice addendum (TAA) fields.

Order-Level Fields

Table 2 Order-Level Fields for American Express Direct

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_company	Name of the company purchasing the product.	Level III (O)	String (40)
billTo_companyCity	City in the address of the company purchasing the product.	Level III (O)	String (30)
billTo_companyCountry	Country in the address of the company purchasing the product. Use the two-character ISO Standard Country Codes .	Level III (O)	String (2)
billTo_companyPostalCode	Postal code in the address of the company purchasing the product. The postal code must consist of 5 to 9 digits. When the company country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 When the company country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] Example A1B 2C3	Level III (O)	String (10)
billTo_companyState	State or province in the address of the company purchasing the product. Use the State, Province, and Territory Codes for the United States and Canada .	Level III (O)	String (2)
billTo_companyStreet1	First line in the street address of the company purchasing the product.	Level III (O)	String (40)
billTo_companyStreet2	Additional address information for the company purchasing the product. Example Attention: Accounts Payable	Level III (O)	String (40)

Table 2 Order-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_firstName	<p>First name of the person requesting the product. This person may or may not be the cardholder.</p> <p>This field and billTo_lastName together should not exceed 40 characters.</p> <p>This field is optional if your CyberSource account is configured for relaxed requirements for address data. See Relaxed Requirements for Address Data and Expiration Date page.</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p> <p>Important</p>	<p>Level II (O)</p> <p>Level III (O)</p>	String (See description)
billTo_lastName	<p>Last name of the person requesting the product. This person may or may not be the cardholder.</p> <p>This field and billTo_firstName together should not exceed 40 characters.</p> <p>This field is optional if your CyberSource account is configured for relaxed requirements for address data. See Relaxed Requirements for Address Data and Expiration Date page.</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p> <p>Important</p>	<p>Level II (O)</p> <p>Level III (O)</p>	String (See description)
ccCaptureService_purchasingLevel	<p>Flag that indicates the capture request includes Level III data. Set the value for this field to 3.</p> <p>See "Requesting Captures and Credits with Level III Data," page 17.</p>	Level III (R for captures; not used for credits)	String (1)
ccCreditService_purchasingLevel	<p>Flag that indicates the credit request includes Level III data. Set the value for this field to 3.</p> <p>See "Requesting Captures and Credits with Level III Data," page 17.</p>	Level III (R for credits; not used for captures)	String (1)

Table 2 Order-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ amexDataTAA1	Four transaction advice addendum fields. These fields are used to display descriptive information about a transaction on your customer's American Express card statement. If you are sending any TAA fields, start with invoiceHeader_amexDataTAA1 , then ... TAA2 , and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. Contact CyberSource Customer Support if you plan to use these fields so that your account can be configured appropriately.	Level II (O but recommended)	String (40)
invoiceHeader_ amexDataTAA2		Level III (O)	
invoiceHeader_ amexDataTAA3			
invoiceHeader_ amexDataTAA4			
invoiceHeader_ referenceDataCode	Code that identifies the value of the invoiceHeader_referenceDataNumber field. For the possible values, see Appendix D, "Reference Data Codes," on page 171. This field is a <i>pass-through</i> , which means that CyberSource does not verify the value or modify it in any way before sending it to the processor.	Level III (R if invoiceHeader_referenceDataNumber is included in the request)	String (3)
invoiceHeader_ referenceDataNumber	Reference number. The meaning of this value is identified by the value of the invoiceHeader_referenceDataCode field. This field is a <i>pass-through</i> , which means that CyberSource does not verify the value or modify it in any way before sending it to the processor.	Level III (R if invoiceHeader_referenceDataCode is included in the request)	String (30)
invoiceHeader_ userPO	Value used by your customer to identify the order. This value is typically a purchase order number, cost center, or project number.	Level II (O)	String (17)
purchaseTotals_ taxAmount	Total tax amount for all the items in the order.	Level III (R even when the total tax amount is 0)	CAD: String (7) USD: String (9)
shipFrom_ city	City where the product is shipped from.	Level III (O)	String (30)
shipFrom_ companyName	Name of the company that ships the product.	Level III (O)	String (40)
shipFrom_ country	Country where the product is shipped from. Use the two-character ISO Standard Country Codes .	Level III (O)	String (2)
shipFrom_ email	Email address of the company that ships the product.	Level III (O)	String (40)
shipFrom_ firstName	First name of the person who is shipping the product. The combined length of this field and the shipFrom_lastName field must not exceed 40 characters.	Level III (O)	String (See description)

Table 2 Order-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_lastName	Last name of the person who is shipping the product. The combined length of this field and the shipFrom_firstName field must not exceed 40 characters.	Level III (O)	String (See description)
shipFrom_phoneNumber	Phone number of the company that ships the product.	Level III (O)	String (15)
shipFrom_postalCode	Postal code where the product is shipped from. 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	Level III (O)	String (10)
shipFrom_state	State where the product is shipped from. Use the State, Province, and Territory Codes for the United States and Canada .	Level III (O)	String (2)
shipFrom_street1	Street address where the product is shipped from.	Level III (O)	String (40)
shipFrom_street2	Additional address information for the company that ships the product.	Level III (O)	String (40)
shipTo_postalCode	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 The postal code is required for Level II processing in the U.S. and U.S. territories. When you do not include this field in the request, CyberSource uses the value for the billTo_postalCode field. When you do not include either field, CyberSource uses the value in your CyberSource account.	Level II (See description)	String (10)

Item-Level Fields

Table 3 Item-Level Fields for American Express Direct

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15 .	Level II (O) Level III (O)	String (23)
item_#_otherTax_#_amount	Tax amount, for the type of tax identified by the value of the corresponding item_#_otherTax_#_type field, that is applied to the item. See "Numbered Elements," page 15 . Important For information about using this field, see "Item-Level Tax Fields," page 31 .	Level III (O)	CAD: String (7) USD: String (9)
item_#_otherTax_#_rate	Tax rate for the tax line item. A maximum of 2 decimal places is allowed. Valid range is 0 . 01 to 99 . 99. The value can also be zero. See "Numbered Elements," page 15 . For example: <ul style="list-style-type: none"> ■ 60% is item_0_taxRate=60.00 ■ 25.5% is item_0_taxRate=25.5 ■ 33.33% is item_0_taxRate=33.33 Important For information about using this field, see "Item-Level Tax Fields," page 31 .	Level III (O)	String (4)
item_#_otherTax_#_statusIndicator	Status for exemption from sales and use tax. This field is a <i>pass-through</i> , which means that CyberSource does not verify the value or modify it in any way before sending it to the processor. For possible values, see Appendix B, "Exemption Status Values," on page 168 . See "Numbered Elements," page 15 . Important For information about using this field, see "Item-Level Tax Fields," page 31 .	Level III (O)	String (1)

Table 3 Item-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_otherTax_#_type	<p>Type of tax. See "Numbered Elements," page 15.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ 02: State sales tax ■ 03: City sales tax ■ 04: Local sales tax ■ 10: Value-added tax (VAT) ■ 11: Goods and services tax (GST) ■ 12: Provincial sales tax ■ 13: Harmonized sales tax ■ 14: Quebec sales tax ■ 23: City tax ■ 24: County or parish sales tax ■ 25: County tax ■ 26: Environment tax ■ 27: State and local sales tax (combined) <p>This field is a <i>pass-through</i>, which means that CyberSource does not verify the value or modify it in any way before sending it to the processor.</p> <p>Important For information about using this field, see "Item-Level Tax Fields," page 31.</p>	Level III (O)	String (2)

Table 3 Item-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_quantity	Quantity of the product being purchased. The default value is 1. See "Numbered Elements," page 15.	Level II (O but recommended) Level III (O)	Nonnegative integer (4)
item_#_referenceData_#_code	Code that identifies the value of the corresponding item_#_referenceData_#_number field. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ AN: Client-defined asset code ■ MG: Manufacturer's part number ■ PO: Purchase order number ■ SK: Supplier stock keeping unit number ■ UP: Universal product code ■ VC: Supplier catalog number ■ VP: Vendor part number This field is a <i>pass-through</i> , which means that CyberSource does not verify the value or modify it in any way before sending it to the processor.	Level III (R if item_#_referenceData_#_number is included in the request)	String (2)
item_#_referenceData_#_number	Reference number. The meaning of this value is identified by the value of the corresponding item_#_referenceData_#_code field. See "Numbered Elements," page 15. <p>The maximum length for this field depends on the value of the corresponding item_#_referenceData_#_code field:</p> <ul style="list-style-type: none"> ■ When the code is PO, the maximum length for the reference number is 22. ■ When the code is VC, the maximum length for the reference number is 20. ■ For all other codes, the maximum length for the reference number is 30. This field is a <i>pass-through</i> , which means that CyberSource does not verify the value or modify it in any way before sending it to the processor.	Level III (R if item_#_referenceData_#_code is included in the request)	String (See description)

Table 3 Item-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	<p>Total tax amount for the item. If you include the order-level purchaseTotals_taxAmount field, the value for that field is the total tax amount that CyberSource sends to the processor for the order. Otherwise, CyberSource adds the all the item_#_taxAmount values to calculate the total tax amount to send to the processor for the order. See "Numbered Elements," page 15.</p> <p>The item_#_taxAmount value cannot be negative. This field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p> <p>Level III</p> <p>If item_#_taxAmount and one or more item_#_otherTax_#_amount fields are included in the request, make sure:</p> <ul style="list-style-type: none"> ■ The item_#_taxAmount value is the sum of all taxes included in the line item. ■ The item_#_otherTax_#_amount values are included in the item_#_taxAmount value. 	<p>Level II (R)</p> <p>Level III (O but recommended)</p>	<p>CAD: String (7)</p> <p>USD: String (9)</p>
item_#_taxRate	<p>Tax rate applied to the item. A maximum of 2 decimal places is allowed. Valid range is 0 . 01 to 99 . 99. The value can also be zero. See "Numbered Elements," page 15.</p> <p>For example:</p> <ul style="list-style-type: none"> ■ 60% is <code>item_0_taxRate=60.00</code> ■ 25.5% is <code>item_0_taxRate=25.5</code> ■ 33.33% is <code>item_0_taxRate=33.33</code> 	Level III (O)	String (4)
item_#_taxStatusIndicator	<p>Status for exemption from sales and use tax. This field is a <i>pass-through</i>, which means that CyberSource does not verify the value or modify it in any way before sending it to the processor. For possible values, see Appendix B, "Exemption Status Values," on page 168. See "Numbered Elements," page 15.</p>	Level III (O)	String (1)

Table 3 Item-Level Fields for American Express Direct (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitOfMeasure	Code that specifies the unit of measurement for the item. See "Numbered Elements," page 15 . See the EDI codes for units of measurement at http://ecomgx17.ecomtoday.com/edi/EDI_4010/el355.htm .	Level III (O)	String (2)
item_#_unitPrice	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0).	Level II (O but recommended) Level III (At least one item is required)	CAD: String (8) USD: String (10)
item_#_weightAmount	Weight of the item. See "Numbered Elements," page 15 .	Level III (O)	String (9)
item_#_weightIdentifier	Type of weight. See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ B: Billed weight ■ N: Actual net weight 	Level III (R if weight amount is included in request)	String (1)
item_#_weightUnit Measurement	Code that specifies the unit of measurement for the weight amount. For example, OZ specifies ounce and LB specifies pound. The possible values are defined by the ANSI Accredited Standards Committee (ASC). See "Numbered Elements," page 15 .	Level III (R if weight amount is included in request)	String (2)

Item-Level Tax Fields

The item-level tax fields are:

- `item_#_otherTax_#_amount`
- `item_#_otherTax_#_rate`
- `item_#_otherTax_#_statusIndicator`
- `item_#_otherTax_#_type`

These are the requirements for including the item-level tax fields in a request:

- You must include the amount and type fields. When you include only one of these fields for a tax line item, CyberSource does not forward any of the information for that tax line item to the processor.
- The first set of item-level tax fields must use number 0. For example, **`item_1_otherTax_0_amount`**.
- You must use consecutive numbers for the tax line items; do not skip a number. If you skip a number, CyberSource ignores the tax line items that follow the skipped number.
- The request must also include the **`item_#_taxAmount`** field.

You can include as many tax line items as needed for one item as long as the value of **`item_#_otherTax_#_type`** is different for each tax line item. See the following example.

Example 2 Three Tax Line Items for One Item

```

item_0_unitPrice=100.00
item_0_quantity=1
item_0_otherTax_0_amount=1.00
item_0_otherTax_0_rate=1.00
item_0_otherTax_0_statusIndicator=2
item_0_otherTax_0_type=02
item_0_otherTax_1_amount=1.10
item_0_otherTax_1_rate=1.10
item_0_otherTax_1_statusIndicator=2
item_0_otherTax_1_type=04
item_0_otherTax_2_amount=0.85
item_0_otherTax_2_rate=0.85
item_0_otherTax_2_statusIndicator=2
item_0_otherTax_2_type=11

```

Chase Paymentech Solutions: Level II and Level III

Transaction Requirements



Important

When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specifications that CyberSource used to implement Level III processing for Chase Paymentech Solutions are:

- *Paymentech's 120-Byte Technical Specification, Rev 2.0.0, December 8, 2003*
- *Paymentech's 96-Byte and 120-Byte Batch Technical Specification Addendum, Rev. 2.0.0, April 1, 2004*

The records referenced are:

- Procurement Level 3 — Visa: Order Level Record, Record #1, Record #2
- Procurement Level 3 — Mastercard: Order Level Record, Record #1, Record #2

Order-Level Fields

Table 4 Order-Level Fields for Chase Paymentech Solutions

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding Chase Paymentech Solutions field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding Chase Paymentech Solutions field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)

Table 4 Order-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_amexDataTAA1	TAA1	Four transaction advice addendum fields. These fields are used to display descriptive information about a transaction on your customer's American Express card statement. If you are sending any TAA fields, start with invoiceHeader_amexDataTAA1 , then ... TAA2 , and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. Contact CyberSource Customer Support if you plan to use these fields so that your account can be configured appropriately. The invoiceHeader_amexDataTAA1 field is required for Level II transactions for American Express cards for Chase Paymentech Solutions, but the other TAA fields are optional. However, if you are including the request ID (ccCreditService_captureRequestID) in a Level II credit request, you are not required to include invoiceHeader_amexDataTAA1 .	Level II	String (40)
invoiceHeader_amexDataTAA2	TAA2		<ul style="list-style-type: none"> American Express (See description) 	
invoiceHeader_amexDataTAA3	TAA3			
invoiceHeader_amexDataTAA4	TAA4			

Table 4 Order-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ userPO	Customer Reference Number	Value used by your customer to identify the order. This value is typically a purchase order number. CyberSource recommends that you do not populate the field with all zeros or nines.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) ■ American Express (R for purchase/ procurement cards; otherwise O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) 	String (25)
otherTax_ alternateTaxAmount	Alternate Tax Amount	Total amount of alternate tax for the order.	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O) 	String (10)
otherTax_ alternateTaxID	Alternate Tax ID	Your tax ID number to use for the alternate tax amount. Required if you set Alternate Tax Amount to any value, including zero. You may send this field without sending Alternate Tax Amount.	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (See description) 	String (15)
otherTax_ vatTaxAmount	VAT/Tax Amount	Total amount of VAT or other tax included in the order.	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) 	String (13)

Table 4 Order-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ vatTaxRate	VAT/Tax Rate	Rate of VAT or other tax for the order. Example 0.040 (=4%) Valid range: 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated)	Level III ■ Visa (O)	String (4)
purchaseTotals_ discountAmount	Discount Amount Applied to Order	Total discount applied to the order. For example: a 20.00 discount off the order total.	Level III ■ Visa (R for Level III interchange)	String (13)
purchaseTotals_ dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level III ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange)	Visa: String (13) Mastercard: String (10)
purchaseTotals_ freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_ grandTotalAmount .	Level III ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange)	Visa: String (13) Mastercard: String (10)
purchaseTotals_ grandTotalAmount	No corresponding Chase Paymentech Solutions field	Grand total for the entire capture or credit request.	Level III ■ Visa (R) ■ Mastercard (R)	String (15)

Table 4 Order-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_postalCode	Ship From ZIP/Postal Code	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric]</p> <p>Example A1B 2C4</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R for best rate. Do not use all zeros or nines.) 	String (10)
shipTo_country	Destination Country Code	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for best rate) ■ Mastercard (O but recommended) 	String (2)
shipTo_postalCode	Destination ZIP/Postal Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for best rate) ■ Mastercard (R for best rate. Do not use all zeros or nines.) 	String (10)

Item-Level Fields



Important

The maximum number of items you can have in a Level III Chase Paymentech Solutions transaction is 98. If the number of items exceeds 98, Chase Paymentech Solutions rejects the batch

Table 5 Item-Level Fields for Chase Paymentech Solutions

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_commodityCode	Item Commodity Code	Commodity code used to classify the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) 	String (12)
item_#_discountAmount	Visa: Discount Amount for Line Item Mastercard: Discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange) 	Visa: String (13) Mastercard: String (10)
item_#_discountIndicator	Discount Indicator	Flag that indicates whether the amount is discounted. Possible values: <ul style="list-style-type: none"> ■ Y: amount is discounted ■ N: amount is not discounted If you do not provide a value but you set Discount Amount to a value greater than zero, then CyberSource sets this field to Y. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Mastercard (R for Level III interchange) 	String (1)
item_#_grossNetIndicator	Gross/Net Indicator	Flag that indicates whether the tax amount is included in the Line Item Total. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ Y: item amount includes tax amount ■ N: item amount does not include tax amount 	Level III <ul style="list-style-type: none"> ■ Mastercard (R) 	String (1)

Table 5 Item-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	No corresponding Chase Paymentech Solutions field	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) ■ American Express (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_productCode	Product Code	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is default. See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15. For ccAuthService , when you set this field to a value other than default or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	String (12)
item_#_productName	Description	Text description of the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	Visa: String (26) Mastercard: String (35)

Table 5 Item-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_quantity	Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource sets it to 1. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	Visa: Integer (12) Mastercard: Integer (5)
item_#_taxAmount	Tax Amount	Total tax to apply to the product. This value cannot be negative. See "Numbered Elements," page 15. The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency. If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange) 	Visa: String (13) Mastercard: String (10)
item_#_taxRate	Tax Rate	Tax rate applied to the item. See "Numbered Elements," page 15. Visa: Valid range is 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated). Mastercard: Valid range is 0.00001 to 0.99999 (0.001% to 99.999%).	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange) 	Visa: String (4) Mastercard: String (7)

Table 5 Item-Level Fields for Chase Paymentech Solutions (Continued)

CyberSource Field Name	Chase Paymentech Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxTypeApplied	Tax Type Applied	Type of tax being applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (4)
item_#_totalAmount	Line Item Total	Total amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R. Do not use all zeros or spaces.) 	Visa: String (13) Mastercard: String (10)
item_#_unitOfMeasure	Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Must not be all zeros or spaces) 	Visa: String (12) Mastercard: String (3)
item_#_unitPrice	Unit Cost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15. Important For a Level III transaction, this value cannot be zero (0).	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (13)

Examples

Example 3 Level III Capture Request for Visa with Name-Value Pairs

```
merchantID=infodev
ccCaptureService_run=true
ccCaptureService_purchasingLevel=3
merchantReferenceCode=R98TV09EN200W
purchaseTotals_currency=USD
ccCaptureService_authRequestID=0839543530000172034078
invoiceHeader_userPO=4119480
shipTo_country=US
shipTo_postalCode=94043
item_0_unitPrice=59.95
item_0_quantity=10
item_0_productName=File Cabinet
item_0_taxAmount=49.46
item_0_totalAmount=648.96
item_1_unitPrice=4.99
item_1_quantity=50
item_1_productName=File Folders
item_1_productName=20.58
item_1_totalAmount=270.08
purchaseTotals_grandTotalAmount=919.04
```

Example 4 Level III Capture Request for Mastercard with XML

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>R98TV09EN200W</merchantReferenceCode>
  <invoiceHeader>
    <userPO>4119480</userPO>
  </invoiceHeader>
  <shipTo>
    <postalCode>94041</postalCode>
    <country>US</country>
  </shipTo>
  <shipFrom>
    <postalCode>42651</postalCode>
  </shipFrom>
  <item id="0">
    <unitPrice>59.95</unitPrice>
    <quantity>10</quantity>
    <productName>File Cabinet</productName>
    <taxAmount>49.46</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>648.96</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <item id="1">
    <unitPrice>4.99</unitPrice>
    <quantity>50</quantity>
    <productName>File Folders</productName>
    <taxAmount>20.58</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>270.08</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>919.04</grandTotalAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>0839543530000172034078</authRequestID>
    <purchasingLevel>3</purchasingLevel>
  </ccCaptureService>
</requestMessage>

```

CyberSource through VisaNet: Level II and Level III

Transaction Requirements



Important

When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

CyberSource recommends including Level II data when submitting Level III data. The **invoiceHeader_userPO** field is required for all Level II and Level III requests. The **ccCaptureService_purchasingLevel** or **ccCreditService_purchasingLevel** field must be included in all Level III requests.

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Supported Acquirers

The following CyberSource through VisaNet acquirers are supported only for Level II processing, not Level III processing:

- Absa Bank
- Asia Commercial Bank (ACB)
- Auckland Savings Bank (ASB)
- Australia and New Zealand Banking Group Limited (ANZ)
- Axis Bank Ltd. of India
- Bangkok Bank Ltd.
- Bank Muscat of Oman
- Bank of Ayudhya (BAY)
- Banque Pour Le Commerce Exterieur Lao (BCEL)
- Barclays Bank Botswana
- Barclays Bank Mauritius Limited
- Barclays Bank of Ghana Limited, Barclays Bank of Tanzania Limited, and Barclays Bank of Uganda Limited
- Barclays Bank of Kenya
- Barclays Bank of Zambia
- Barclays Bank Seychelles
- Citibank Malaysia
- Citibank Singapore Ltd.
- Commercial Bank of Qatar
- First Data Merchant Solutions in Brunei
- First Data Merchant Solutions in Hong Kong
- First Data Merchant Solutions in Malaysia
- First Data Merchant Solutions in Singapore
- Habib Bank Ltd. (HBL)
- HDFC Bank Ltd. of India
- I&M Bank
- National Bank of Abu Dhabi (NBAD)
- Overseas Chinese Banking Corp (OCBC)
- Promerica in Honduras and Nicaragua
- United Overseas Bank (UOB) in Singapore and Vietnam
- Vantiv
- Vietcombank
- VietinBank
- Wing Lung Bank

The following CyberSource through VisaNet acquirers are supported for Level II and Level III processing:

- Banco Safra
- Bank Sinarmas (Omise Ltd.)
- BC Card Co., Ltd.
- Cathay United Bank (CUB)
- Citibank Hongkong and Macau
- Taishin Bank Ltd.
- United Overseas Bank (UOB) in Thailand
- Vietnam Technological and Commercial Joint-stock Bank

Order-Level Fields

Table 6 Order-Level Fields for CyberSource through VisaNet

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding CyberSource through VisaNet field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding CyberSource through VisaNet field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_authorizedContactName	authorized ContactName	The name of the individual or the company contacted for company authorized purchases.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (36)
invoiceHeader_cardAcceptorRefNumber	cardAcceptor RefNumber	Reference number that facilitates card acceptor/corporation communication and record keeping.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (25)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ amexDataTAA1	amexDataTAA1	Four transaction advice addendum fields. These fields are used to display descriptive information about CPS item(s) on your customer's American Express card statement. If you are sending any TAA fields, start with invoiceHeader_amexDataTAA1 , then ... TAA2 , and so on. Skipping a TAA field causes subsequent TAA fields to be ignored. Note These fields may be required depending on the processing method you use and if the customer provides charge description data. Contact CyberSource Customer Support if you plan to use these fields so that your account can be configured appropriately.	Level II ■ American Express (O)	String (40)
invoiceHeader_ amexDataTAA2	amexDataTAA2			
invoiceHeader_ amexDataTAA3	amexDataTAA3			
invoiceHeader_ amexDataTAA4	amexDataTAA4			
invoiceHeader_ merchantVAT RegistrationNumber	merchantVAT Registration Number	Your government-assigned tax identification number. Note For Payouts, the maximum length of this field is different. See <i>Payouts for CyberSource through VisaNet Using the Simple Order API</i> .	Level III ■ Visa (O) ■ Mastercard (O)	String (20)
invoiceHeader_ purchaserOrderDate	purchaserOrder Date	Date the order was processed. Format: YYMMDD	Level III ■ Visa (O) ■ Mastercard (O)	String (6)
invoiceHeader_ purchaserVAT RegistrationNumber	purchaserVAT Registration Number	Customer's government-assigned tax identification number.	Level III ■ Visa (O) ■ Mastercard (O)	String (20)
invoiceHeader_ summaryCommodity Code	summary Commodity Code	International description code of the overall order's goods or services. Contact your acquirer for a list of codes.	Level III ■ Visa (O) ■ Mastercard (O)	String (4)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_taxable	localTaxIncluded	<p>Flag that indicates whether an order is taxable. Possible values:</p> <ul style="list-style-type: none"> ■ <code>true</code>: the order is taxable. ■ <code>false</code>: the order is not taxable. <p>This value must be <code>true</code> if the sum of all item_#_taxAmount values > 0.</p> <p>If you do not include any item_#_taxAmount values in your request, CyberSource does not include invoiceHeader_taxable in the data it sends to the processor.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R if the sum of all item_#_taxAmount values = 0; otherwise O) ■ Mastercard (R if the sum of all item_#_taxAmount values = 0; otherwise O) ■ American Express (R if the sum of all item_#_taxAmount values = 0; otherwise O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R if the sum of all item_#_taxAmount values = 0; otherwise O) ■ Mastercard (R if the sum of all item_#_taxAmount values = 0; otherwise O) 	String (5)
invoiceHeader_totalTaxTypeCode	totalTaxTypeCode	<p>For tax amounts that can be categorized as one tax type. This field contains the tax type code that corresponds to the entry in the item_#_taxAmount field. Possible values:</p> <ul style="list-style-type: none"> ■ 056: sales tax (U.S only) ■ TX~: all taxes (Canada only) <p>Note ~ = space.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ American Express (O) 	String (3)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_userPO	customer Code	Value that identifies your customer.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String with letters and numbers only (17)
invoiceHeader_vatInvoiceReference Number	vatInvoice Reference Number	VAT invoice number associated with the transaction.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (15)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_nationalTaxIndicator	nationalTaxIncluded	<p>Flag that indicates whether a national tax is included in the order total. Possible values:</p> <ul style="list-style-type: none"> ■ 0: national tax not included ■ 1: national tax included <p>This value must be 1 if the sum of all item_#_nationalTax values > 0.</p> <p>If you do not include any item_#_nationalTax values in your request, CyberSource does not include otherTax_nationalTaxIndicator in the data it sends to the processor.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R if the sum of all item_#_nationalTax values = 0; otherwise O) ■ Mastercard (R if the sum of all item_#_nationalTax values = 0; otherwise O) ■ American Express (R if the sum of all item_#_nationalTax values = 0; otherwise O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R if the sum of all item_#_nationalTax values = 0; otherwise O) ■ Mastercard (R if the sum of all item_#_nationalTax values = 0; otherwise O) 	String (1)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ vatTaxAmountSign	vatTaxAmount Sign	<p>Flag that indicates if the VAT tax amount should be interpreted as negative or positive. Possible values:</p> <ul style="list-style-type: none"> ■ negative: VAT amount is considered negative for the invoice ■ positive: VAT amount is considered positive for the invoice <p>This field relates to the value in the otherTax_vatTaxAmount field.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)
otherTax_vatTaxRate	taxRate	<p>Tax rate or other tax for the order. A maximum of 2 decimal places is allowed.</p> <p>Example 60% is 60.00</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (4)
purchaseTotals_ discountAmount	discount Amount	<p>Total discount applied to the order. For example: a 20.00 discount off the order total.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
purchaseTotals_ discountAmountSign	discount AmountSign	<p>Flag that indicates whether the invoice level discount amount should be interpreted as negative or positive. Possible values:</p> <ul style="list-style-type: none"> ■ negative: discount amount is considered as a discount refund for the invoice ■ positive: discount amount is considered as a discount for the invoice <p>Note A positive value for the discount amount is considered to reduce the amount of the invoice.</p> <p>This field relates to the value in the purchaseTotals_discountAmount field.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_ discountManagement Indicator	discount Management Indicator	Flag that indicates how the merchant manages discounts. Possible values: <ul style="list-style-type: none"> ■ 0: no invoice level discount included ■ 1: tax calculated on the post-discount invoice total ■ 2: tax calculated on the pre-discount invoice total This field relates to the value in the purchaseTotals_ discountAmount field.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
purchaseTotals_ dutyAmount	dutyAmount	Total charges for any import or export duties included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
purchaseTotals_ dutyAmountSign	dutyAmount Sign	Flag that indicates whether the duty amount should be interpreted as negative or positive. Possible values: <ul style="list-style-type: none"> ■ <i>negative</i>: duty amount is considered negative and represents a refund on the invoice ■ <i>positive</i>: duty amount is considered positive and represents a cost on the invoice This field relates to the value in the purchaseTotals_ dutyAmount field.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)
purchaseTotals_ freightAmount	freight Amount	Total freight or shipping and handling charges for the order. Maximum amount is 99,999.99. When you include this field in your request, you must also include the purchaseTotals_ grandTotalAmount field.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_freightAmountSign	freightAmountSign	<p>Flag that indicates if the freight (shipping) amount should be interpreted as negative or positive. Possible values:</p> <ul style="list-style-type: none"> ■ negative: freight amount is considered negative and represents a refund on the invoice ■ positive: freight amount is considered positive and represents a cost on the invoice <p>This field relates to the value in the purchaseTotals_freightAmount field.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)
shipFrom_postalCode	shipFromAddress	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C4</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)

Table 6 Order-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	shipTo Address	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) ■ American Express (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (20)
shipTo_state	state	<p>State or province of the shipping address. Use the State, Province, and Territory Codes for the United States and Canada.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (3)
taxManagementIndicator	tax Management Indicator	<p>Flag that indicates how you calculate tax. Possible values:</p> <ul style="list-style-type: none"> ■ 0: net prices with tax calculated at line item level ■ 1: net prices with tax calculated at invoice level ■ 2: gross prices with tax provided at line item level ■ 3: gross prices with tax provided at invoice level ■ 4: no tax applies on the invoice for the transaction 	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)

Item-Level Fields

Table 7 Item-Level Fields for CyberSource through VisaNet

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_commodityCode	commodity Code	International description code used to classify the item. Contact your acquirer for a list of codes. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_discountAmount	discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_discountManagementIndicator	discount Management Indicator	Flag to indicate how you handle discount at the line item level. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ 0: no line level discount provided ■ 1: tax was calculated on the post-discount line item total ■ 2: tax was calculated on the pre-discount line item total <p>Note Visa will inset 0 (zero) if an invalid value is included in this field.</p> <p>This field relates to the value in the item_#_discountAmount field.</p>	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
item_#_discountRate	discountRate	Rate the item is discounted. Maximum of 2 decimal places. See "Numbered Elements," page 15. Example 5.25 (=5.25%)	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (5)
item_#_invoiceNumber	InvoiceNumber	Field to support an additional sub element that is used to identify the value added tax (VAT) invoice or tax receipt. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (15)

Table 7 Item-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_nationalTax	nationalTax Amount	Amount of national tax. This value cannot exceed 999999999999 (twelve 9s). This value cannot be negative. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) ■ American Express (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_productCode	productCode	Product code for the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (15)
item_#_productName	productName	Product name for the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (35)
item_#_quantity	quantity	Number of units of the item purchased. A maximum of 4 decimal places is allowed. For example 1.1234. If you do not provide this value, CyberSource sets it to 1.0. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ American Express (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_sign	sign	Flag to indicate whether the line item should be interpreted as negative or positive. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ negative ■ positive This field relates to the value in the item_#_taxAmount field.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)

Table 7 Item-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	localTax Amount	<p>Total tax to apply to the product. This value cannot exceed 999999999999 (twelve 9s). This value cannot be negative.</p> <p>This value is the amount of state or provincial tax included in the transaction amount.</p> <p>If you do not include this field in your request, CyberSource sets this field to the default value of 0. See "Numbered Elements," page 15.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) ■ American Express (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_taxRate	taxRate	<p>Tax rate applied to the item. A maximum of 2 decimal places is allowed. Valid range is 0.01 to 99.99. The value can also be zero. See "Numbered Elements," page 15.</p> <p>For example:</p> <ul style="list-style-type: none"> ■ 60% is offer0:tax_rate=60.00 ■ 25.5% is offer0:tax_rate=25.5 ■ 33.33% is offer0:tax_rate=33.33 	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (4)
item_#_taxStatusIndicator	taxStatus Indicator	<p>Flag to indicate whether tax is exempted or not included. See "Numbered Elements," page 15.</p> <p>Possible values:</p> <ul style="list-style-type: none"> ■ 0: tax not included ■ 1: tax included ■ 2: transaction is not subject to tax 	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
item_#_totalAmount	totalAmount	<p>Total purchase amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)

Table 7 Item-Level Fields for CyberSource through VisaNet (Continued)

CyberSource Field Name	CyberSource through VisaNet Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_typeOfSupply	typeOfSupply	Flag to indicate whether the purchase is categorized as goods or services. See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ 00: goods ■ 01: services 	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (2)
item_#_unitOfMeasure	unitOfMeasure	Unit of measure for the item. See "Codes for Units of Measurement," page 161 . See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
item_#_unitPrice	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. A maximum of 4 decimal places is allowed. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0).	Level II <ul style="list-style-type: none"> ■ American Express (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)

Elavon Americas: Level II and Level III

Transaction Requirements



Important

When you send a capture request with Level II or Level III data or both, you must include the required fields for every capture request. For information about the non-Level-II and non-Level-III fields required for capture requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Order-Level Fields

Table 8 Order-Level Fields for Elavon Americas

CyberSource Field Name	Elavon Americas Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_merchantVATRegistrationNumber	Merchant VAT Reg / Single Business Reference Number	Your government-assigned tax identification number.	Level III ■ Visa (O)	String (20)
invoiceHeader_purchaserOrderDate	Order Date	Date the order was processed. Format: YYMMDD.	Level III ■ Visa (O)	String (6)
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Registration Number	Identification number assigned to the purchasing company by the tax authorities.	Level III ■ Visa (O)	String (13)
invoiceHeader_summaryCommodityCode	Summary Commodity Code	Categorizes purchases for VAT reporting.	Level III ■ Visa (R)	String (4)
invoiceHeader_userPO	Purchase Identifier	Value used by your customer to identify the order. This value is typically a purchase order number. CyberSource recommends that you do not populate the field with all zeros or nines.	Levels II and III For Visa and Mastercard: (R) only for purchase/procurement cards (O) for non-purchase/procurement cards	String (17)
invoiceHeader_vatInvoiceReferenceNumber	VAT Invoice Reference Number (Unique)	VAT invoice number associated with the transaction.	Level III ■ Visa (O)	String (15)
otherTax_localTaxAmount	Sales Tax Amount	Sales tax applied to the item. Important For Mastercard, do not set this field to 0 (zero).	Levels II and III ■ Visa (O) ■ Mastercard (O)	Numeric String (10)
otherTax_nationalTaxAmount	National / Alternate Tax	Amount of national tax or value added tax for countries in which more than one tax is applied. Provide this value if national_tax differs from tax_amount . If you do not provide this value, CyberSource assumes that national_tax is equal to tax_amount . Important For Mastercard, do not set this field to 0 (zero).	Level III ■ Visa (O) ■ Mastercard (O)	Numeric String (12)

Table 8 Order-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ alternateTaxAmount	National / Alternate Tax	Total amount of alternate tax for the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Numeric String (12)
otherTax_ alternateTaxAmount	Other Tax	Total amount of alternate tax for the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	Numeric String (12)
otherTax_ alternateTaxIndicator	National / Alternate Tax Included	Flag that indicates whether the alternate tax amount (alternate_tax_amount) is included in the request. Possible values: <ul style="list-style-type: none"> ■ 0: alternate tax amount is not included in the request. ■ 1: alternate tax amount is included in the request. 	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
otherTax_ localTaxIndicator	Sales Tax Included	Flag that indicates whether local sales tax is included in the order total. Possible values: <ul style="list-style-type: none"> ■ 0: local sales tax not included ■ 1: local sales tax included ■ 2: tax exempt order 	Level II and III For Visa and Mastercard: (R) if the sum of all TaxAmount values = 0 (O) if the sum of all TaxAmount values > 0	String (1)
otherTax_ nationalTaxIndicator	National / Alternate Tax Included	Flag that indicates whether a national tax is included in the order total. Possible values: <ul style="list-style-type: none"> ■ 0: national tax not included ■ 1: national tax included 	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
otherTax_ vatTaxAmount	VAT / Tax Amount (Freight)	Total amount of VAT or other tax included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	Numeric String (12)
otherTax_ vatTaxRate	VAT / Tax Rate (Freight)	Rate of VAT or other tax for the order. Example 0.040 (=4%) Valid range: 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated)	Level III <ul style="list-style-type: none"> ■ Visa (O) 	Numeric String (4)

Table 8 Order-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_discountAmount	Discount Amount	Total discount applied to the order. For example: a 20.00 discount off the order total.	Level III <ul style="list-style-type: none"> ■ Visa (O) (Recommended for best rate) ■ Mastercard (O) (Recommended for best rate. Do not use all zeros or nines) 	Numeric String (12)
purchaseTotals_dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Numeric String (12)
purchaseTotals_freightAmount	Freight/ Shipping Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include grand_total_amount .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Numeric String (12)
shipFrom_postalCode	Ship From Postal / Zip Code	Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric] Example A1B 2C4	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (Recommended for best rate. Do not use all zeros or nines) 	String (10)
shipTo_country	Destination Country Code	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	Level III <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (O) (but recommended) 	String (3)

Table 8 Order-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Destination Postal / Zip Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for ship_from_zip when your customer takes possession of the items at your location.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)

Item-Level Fields

Table 9 Item-Level Fields for Elavon Americas

CyberSource Field Name	Elavon Americas Field Name	Elavon Americas Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
	Visa	Mastercard			
item_#_commodityCode	Item Commodity Code		Commodity code used to classify the item.	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) 	String (12)
item_#_discountAmount	Discount Per line Item	Discount Amount	Discount applied to the item.	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	<p>Visa Numeric String (12)</p> <p>MasterCard Numeric String (9)</p>

Table 9 Item-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name Visa	Elavon Americas Field Name Mastercard	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_ discountIndicator		Discount Indicator	<p>Flag that indicates whether the amount is discounted. Possible values:</p> <ul style="list-style-type: none"> ■ Y: amount is discounted ■ N: amount is not discounted <p>If you do not provide a value but you set Discount Amount to a value greater than zero, then CyberSource sets this field to Y.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O) 	String (1)
item_#_ grossNetIndicator		Net / Gross Indicator	<p>Flag that indicates whether the tax amount is included in the Line Item Total. Possible values:</p> <ul style="list-style-type: none"> ■ Y: item amount includes tax amount ■ N: item amount does not include tax amount 	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (R) 	String (1)
item_#_productCode	Discount Per line Item	Product Code	<p>Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is <code>default</code>. See Appendix C, "Product Codes," on page 170 for a list of valid values.</p> <p>For <code>ics_auth</code>, when you set this field to a value other than <code>default</code> or any of the values related to shipping and handling, the <code>quantity</code>, <code>product_name</code>, and <code>merchant_product_sku</code> fields are required.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)

Table 9 Item-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name Visa	Elavon Americas Field Name Mastercard	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_ productName	Item Description	Item Description	Text description of the item.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa String (25) MasterCard String (35)
item_#_quantity	Quantity	Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource sets it to 1.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa Numeric String (12) MasterCard Numeric String (5)
item_#_taxAmount	VAT / Tax Amount	Tax Amount	Total tax to apply to the product. This value cannot be negative. The tax_amount field is additive. For example, if you include the following offer lines: offer0=amount:10.00^ quantity:1^tax_amount: 0.80 offer1=amount:20.00^ quantity:1^tax_amount: 1.60 the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The tax_amount and the amount must be in the same currency. If you want to include tax_amount and also request the ics_tax service, see Tax Calculation Service Using the Simple Order API	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa Numeric String (12) MasterCard Numeric String (9)

Table 9 Item-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name Visa	Elavon Americas Field Name Mastercard	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxRate	VAT / Tax Rate	Tax Rate Applied	Tax rate applied to the item. Visa: Valid range is 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated). Mastercard: Valid range is 0.00001 to 0.99999 (0.001% to 99.999%).	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa Numeric String (4) MasterCard Numeric String (5)
item_#_taxTypeApplied		Tax Type Applied	Type of tax being applied to the item.	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (4)
item_#_totalAmount	Line Item Total	Extended Item Amount	Total amount for the item. Normally calculated as the unit price x quantity.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa Numeric String (12) MasterCard Numeric String (9)
item_#_unitOfMeasure	Unit of Measure	Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R) 	Visa String (12) MasterCard String (3)
item_#_unitPrice	Unit Cost		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 For a Level III transaction, this value cannot be zero (0).	Level III <ul style="list-style-type: none"> ■ Visa (R) 	Numeric String (12)

Table 9 Item-Level Fields for Elavon Americas (Continued)

CyberSource Field Name	Elavon Americas Field Name Visa	Elavon Americas Field Name Mastercard	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ alternateTaxID		Tax Amount	Your tax ID number to use for the alternate tax amount. Required if you set Alternate Tax Amount to any value, including zero. You may send this field without sending Alternate Tax Amount.	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (15)

FDC Compass: Level II and Level III

Transaction Requirements



Important

When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specification that CyberSource used to implement Level III processing for FDC Compass is the *Compass 120-Byte Processing Technical Specification, Version 1.9, July 28, 2009*.

Order-Level Fields

Table 10 Order-Level Fields for FDC Compass

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding FDC Compass field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding FDC Compass field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_amexDataTAA1 invoiceHeader_amexDataTAA2 invoiceHeader_amexDataTAA3 invoiceHeader_amexDataTAA4	TAA1 TAA2 TAA3 TAA4	<p>Four transaction advice addendum fields. These fields are used to display descriptive information about a transaction on your customer's American Express card statement. If you are sending any TAA fields, start with invoiceHeader_amexDataTAA1, then ...TAA2, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored.</p> <p>Contact CyberSource Customer Support if you plan to use these fields so that your account can be configured appropriately.</p> <p>The invoiceHeader_amexDataTAA1 field is required for Level II transactions for American Express cards for FDC Compass, but the other TAA fields are optional. However, if you are including the request ID (ccCreditService_captureRequestID) in a Level II credit request, you are not required to include invoiceHeader_amexDataTAA1.</p>	Level II <ul style="list-style-type: none"> ■ American Express (See description) 	String (40)

Table 10 Order-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ userPO	Customer Reference Number	Value used by your customer to identify the order. This value is typically a purchase order number. CyberSource recommends that you do not populate the field with all zeros or nines.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) ■ American Express (R for purchase/ procurement cards; otherwise O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) 	String (25)
otherTax_ alternateTaxAmount	Alternate Tax Amount	Total amount of alternate tax for the order.	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O) 	String (10)
otherTax_ alternateTaxID	Alternate Tax ID	Your tax ID number to use for the alternate tax amount. Required if you set Alternate Tax Amount to any value, including zero. You may send this field without sending Alternate Tax Amount.	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (See description) 	String (15)
otherTax_ vatTaxAmount	VAT/Tax Amount	Total amount of VAT or other tax included in the order.	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) 	String (13)

Table 10 Order-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ vatTaxRate	VAT/Tax Rate	Rate of VAT or other tax for the order. Example 0.040 (=4%) Valid range: 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated)	Level III ■ Visa (O)	String (4)
purchaseTotals_ discountAmount	Discount Amount Applied to Order	Total discount applied to the order. For example: a 20.00 discount off the order total.	Level III ■ Visa (O)	String (13)
purchaseTotals_ dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level III ■ Visa (O) ■ Mastercard (O)	Visa: String (13) Mastercard: String (10)
purchaseTotals_ freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_grandTotalAmount .	Level III ■ Visa (O) ■ Mastercard (O)	Visa: String (13) Mastercard: String (10)
purchaseTotals_ grandTotalAmount	No corresponding FDC Compass field	Grand total for the entire capture or credit request.	Level III ■ Visa (R) ■ Mastercard (R)	String (15)
shipFrom_ postalCode	Ship From ZIP/Postal Code	Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric] Example A1B 2C4	Level III ■ Visa (O) ■ Mastercard (R for best rate. Do not use all zeros or nines.)	String (10)

Table 10 Order-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_country	Destination Country Code	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	Level III <ul style="list-style-type: none"> ■ Visa (R for best rate) ■ Mastercard (O but recommended) 	String (2)
shipTo_postalCode	Destination ZIP/Postal Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location.</p>	Level III <ul style="list-style-type: none"> ■ Visa (R for best rate) ■ Mastercard (R for best rate. Do not use all zeros or nines.) 	String (10)

Item-Level Fields



Important

The maximum number of items you can have in a Level III FDC Compass transaction is 98. If the number of items exceeds 98, FDC Compass rejects the batch.

Table 11 Item-Level Fields for FDC Compass

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_commodityCode	Item Commodity Code	Commodity code used to classify the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) 	String (12)
item_#_discountAmount	Visa: Discount Amount for Line Item Mastercard: Discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Visa: String (13) Mastercard: String (10)
item_#_discountIndicator	Discount Indicator	Flag that indicates whether the amount is discounted. Possible values: <ul style="list-style-type: none"> ■ Y: amount is discounted ■ N: amount is not discounted <p>If you do not provide a value but you set Discount Amount to a value greater than zero, then CyberSource sets this field to Y. See "Numbered Elements," page 15.</p>	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (1)
item_#_grossNetIndicator	Gross/Net Indicator	Flag that indicates whether the tax amount is included in the Line Item Total. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ Y: item amount includes tax amount ■ N: item amount does not include tax amount 	Level III <ul style="list-style-type: none"> ■ Mastercard (R) 	String (1)

Table 11 Item-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	No corresponding FDC Compass field	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) ■ American Express (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_productCode	Product Code	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is default. See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15. For ccAuthService , when you set this field to a value other than default or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	String (12)
item_#_productName	Description	Text description of the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	Visa: String (26) Mastercard: String (35)
item_#_quantity	Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource sets it to 1. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	Visa: Integer (12) Mastercard: Integer (5)

Table 11 Item-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	Tax Amount	<p>Total tax to apply to the product. This value cannot be negative. See "Numbered Elements," page 15.</p> <p>The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange) 	<p>Visa: String (13)</p> <p>Mastercard: String (10)</p>
item_#_taxRate	Tax Rate	<p>Tax rate applied to the item. See "Numbered Elements," page 15.</p> <p>Visa: Valid range is 0.01 to 0.99 (1% to 99%, with only whole percentage values accepted; values with additional decimal places will be truncated).</p> <p>Mastercard: Valid range is 0.00001 to 0.99999 (0.001% to 99.999%).</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange) 	<p>Visa: String (4)</p> <p>Mastercard: String (7)</p>
item_#_taxTypeApplied	Tax Type Applied	Type of tax being applied to the item. See "Numbered Elements," page 15.	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O) 	String (4)
item_#_totalAmount	Line Item Total	Total amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15.	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R. Do not use all zeros or spaces.) 	<p>Visa: String (13)</p> <p>Mastercard: String (10)</p>

Table 11 Item-Level Fields for FDC Compass (Continued)

CyberSource Field Name	FDC Compass Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitOfMeasure	Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161 . See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Must not be all zeros or spaces) 	Visa: String (12) Mastercard: String (3)
item_#_unitPrice	Unit Cost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0).	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (13)

Examples

Example 5 Level III Capture Request for Visa with Name-Value Pairs

```
merchantID=infodev
ccCaptureService_run=true
ccCaptureService_purchasingLevel=3
merchantReferenceCode=R98TV09EN200W
purchaseTotals_currency=USD
ccCaptureService_authRequestID=0839543530000172034078
invoiceHeader_userPO=4119480
shipTo_country=US
shipTo_postalCode=94043
item_0_unitPrice=59.95
item_0_quantity=10
item_0_productName=File Cabinet
item_0_taxAmount=49.46
item_0_totalAmount=648.96
item_1_unitPrice=4.99
item_1_quantity=50
item_1_productName=File Folders
item_1_productName=20.58
item_1_totalAmount=270.08
purchaseTotals_grandTotalAmount=919.04
```

Example 6 Level III Capture Request for Mastercard with XML

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>R98TV09EN200W</merchantReferenceCode>
  <invoiceHeader>
    <userPO>4119480</userPO>
  </invoiceHeader>
  <shipTo>
    <postalCode>94041</postalCode>
    <country>US</country>
  </shipTo>
  <shipFrom>
    <postalCode>42651</postalCode>
  </shipFrom>
  <item id="0">
    <unitPrice>59.95</unitPrice>
    <quantity>10</quantity>
    <productName>File Cabinet</productName>
    <taxAmount>49.46</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>648.96</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <item id="1">
    <unitPrice>4.99</unitPrice>
    <quantity>50</quantity>
    <productName>File Folders</productName>
    <taxAmount>20.58</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>270.08</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>919.04</grandTotalAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>0839543530000172034078</authRequestID>
    <purchasingLevel>3</purchasingLevel>
  </ccCaptureService>
</requestMessage>

```

FDC Nashville Global: Level II and Level III



Starting May 1, 2012: Due to the limited functionality of the **invoiceHeader_supplierOrderReference**, CyberSource recommends that you use the item-level field **item_#_productName** instead. Include only one of these fields in a request; including both fields could result in an error.

Transaction Requirements



When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specification that CyberSource used to implement Level III processing for FDC Nashville Global is the *First Data PTS Specification, v2010-2*, October 30, 2010.

Order-Level Fields

Table 12 Order-Level Fields for FDC Nashville Global

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding FDC Nashville Global field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding FDC Nashville Global field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Registration Number	Identification number assigned to the purchasing company by the tax authorities.	Level II <ul style="list-style-type: none"> ■ Visa (R for non-U.S. Visa transactions; otherwise, not used) 	String (13)
invoiceHeader_supplierOrderReference	Item Description Part A	Text description of the item. Important Starting May 1, 2012: Due to the limited functionality of the invoiceHeader_supplierOrderReference field, CyberSource recommends that you use the item-level field item_#_productName instead. Include only one of these fields in a request; including both fields could result in an error.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R for reduced interchange) 	String (25)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_userPO	Customer Code	Value used by your customer to identify the order. This value is typically a purchase order number. You must provide a value in this field or in the merchantReferenceCode field. CyberSource recommends that you do not populate this field with all zeros or nines.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) ■ American Express (See description) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) 	String (25)
invoiceHeader_vatInvoiceReferenceNumber	VAT Invoice Reference Number	VAT invoice number associated with the transaction.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for non-U.S. Visa transactions; otherwise, not used) 	String (15)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ alternateTaxAmount	Other Tax Amount	Amount of all taxes, excluding the local tax (item_#_taxAmount) and national tax (item_#_nationalTax) included in the total tax.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for non-U.S. transactions; otherwise, not used) ■ Mastercard (R for non-U.S. transactions; otherwise, not used) ■ American Express (R for non-U.S. transactions; otherwise, not used) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O for non-U.S. transactions; otherwise, not used) ■ Mastercard (O for non-U.S. transactions; otherwise, not used) 	String (11)
otherTax_ alternate TaxIndicator	Other Tax Indicator	<p>Flag that indicates whether the alternate tax amount (otherTax_ alternateTaxAmount) is included in the request. Possible values:</p> <ul style="list-style-type: none"> ■ 0: alternate tax amount is not included in the request. ■ 1: alternate tax amount is included in the request. 	<p>Level II</p> <ul style="list-style-type: none"> ■ Mastercard (R for non-U.S. transactions; otherwise, not used) <p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O for non-U.S. transactions; otherwise, not used) 	String (1)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ vatTaxAmount	VAT/Tax Amount	Total amount of VAT or other tax on freight or shipping only.	Level II <ul style="list-style-type: none"> ■ Visa (O for non-U.S. transactions; otherwise, not used) ■ Mastercard (O for non-U.S. transactions; otherwise, not used) ■ American Express (O for non-U.S. transactions; otherwise, not used) 	String (11)
otherTax_ vatTaxRate	VAT/Tax Rate	Vat tax rate for freight or shipping.	Level II <ul style="list-style-type: none"> ■ Visa (O for non-U.S. transactions; otherwise, not used) ■ Mastercard (O for non-U.S. transactions; otherwise, not used) ■ American Express (O for non-U.S. transactions; otherwise, not used) 	String (5)
purchaseTotals_ discountAmount	Discount Amount	Total discount applied to the order. This value cannot be negative. For example: a 20.00 discount off the order total.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (11)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_dutyAmount	Duty Amount	Total charges for any import or export duties included in the order. This value cannot be negative.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (11)
purchaseTotals_freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_grandTotalAmount .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (13)
purchaseTotals_grandTotalAmount	No corresponding FDC Nashville Global field	Grand total for the entire capture or credit request.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (15)
shipFrom_postalCode	Ship From Zip	Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric] Example A1B 2C4	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (10)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_country	Destination Country	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p> <p>Note If you include the shipTo_country field in a request and if the ship-to country is the U.S. or Canada, the request must also include the shipTo_state field.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Mastercard (R) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R if purchase Totals_freight Amount is included; otherwise, recommended for best rate) ■ Mastercard (O but recommended) 	String (2)
shipTo_postalCode	Destination Zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location.</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (10)

Table 12 Order-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_state		<p>State or province of the shipping address. Use the State, Province, and Territory Codes for the United States and Canada.</p> <p>This field must be included in a request if the shipTo_country field is included and the ship-to country is the U.S. or Canada.</p>	<p>Level II</p> <ul style="list-style-type: none"> Mastercard (R) <p>Level III</p> <ul style="list-style-type: none"> Visa (See description) Mastercard (See description) 	String (2)

Item-Level Fields

Table 13 Item-Level Fields for FDC Nashville Global

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxAmount	Item Other Tax Amount	<p>See "Numbered Elements," page 15.</p> <p>Visa: VAT or other tax amount</p> <p>Mastercard: Tax amount collected for a special type of tax</p> <p>Important For Mastercard, do not set this field to 0 (zero).</p>	<p>Level III</p> <ul style="list-style-type: none"> Visa (O) Mastercard (O) 	String (13)
item_#_alternateTaxID	Tax Amount 1 Tax ID	<p>Your tax ID number to use for the alternate tax amount. See "Numbered Elements," page 15.</p>	<p>Level III</p> <ul style="list-style-type: none"> Mastercard (R if item_#_alternateTaxAmount is included; otherwise O) 	String (15)
item_#_alternateTaxRate	Item Tax Rate Applied	<p>See "Numbered Elements," page 15.</p> <p>Mastercard: Tax rate for a type of tax collected.</p> <p>Visa: VAT or other tax rate.</p>	<p>Level III</p> <ul style="list-style-type: none"> Visa (O) Mastercard (O) 	String (5)

Table 13 Item-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxType	Tax Type Identifier	Flag that indicates the type of tax collected for item_#_alternateTaxAmount . See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ 00: unknown ■ 01: federal or national sales tax ■ 02: states sales tax ■ 03: city sales tax ■ 04: local sales tax ■ 05: municipal sales tax ■ 06: other tax ■ 10: value-added tax (VAT) ■ 11: goods and services tax (GST) ■ 12: provincial sales tax ■ 20: room tax ■ 21: occupancy tax ■ 22: energy tax 	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (2)
item_#_alternateTaxTypeApplied	Item Tax Type Applied	See "Numbered Elements," page 15 . Mastercard: Flag that defines tax categories for domestic processing in certain locations. Visa: VAT or other tax type.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (4)
item_#_commodityCode	Item Commodity Code	International description code used to classify the item. Contact your acquirer or FDC Nashville Global for a list of codes. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (12)
item_#_discountAmount	Item Discount Amount	Discount applied to the item. See "Numbered Elements," page 15 . Important For Mastercard, do not set this field to 0 (zero).	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (13)

Table 13 Item-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	No corresponding FDC Nashville Global field	You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) ■ American Express (See description) Level III <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) 	String (23)
item_#_localTax	Item Local Tax Amount	Sales tax applied to the item. See "Numbered Elements," page 15. Important For Mastercard, do not set this field to 0 (zero).	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (13)
item_#_nationalTax	National Tax Amount	Amount of national tax or value added tax for countries in which more than one tax is applied. Provide this value if national_tax differs from tax_amount . If you do not provide this value, CyberSource assumes that national_tax is equal to tax_amount . See "Numbered Elements," page 15. Important For Mastercard, do not set this field to 0 (zero).	Level II <ul style="list-style-type: none"> ■ Visa (R for non-U.S. Visa transactions; otherwise, not used) 	String (11)
item_#_productCode	Item Product Code	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is <code>default</code> . See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15. For ccAuthService , when you set this field to a value other than <code>default</code> or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R for reduced interchange) 	String (12)

Table 13 Item-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_productName	Description	Text description of the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for Level III interchange) ■ Mastercard (R for Level III interchange. Do not use all zeros or spaces.) 	Visa: String (26) Mastercard: String (35)
item_#_productSKU	Item Customer Code	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 or handling. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) 	String (30)
item_#_quantity	Item Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource uses 1. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (RS for reduced interchange) 	Integer (12)

Table 13 Item-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	Local Tax Amount	<p>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.</p> <p>The tax amount field is additive. The following example uses a two-exponent currency such as USD:</p> <ol style="list-style-type: none"> You include the following items in your request: <pre> 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 </pre> The total amount authorized will be 32.40, not 30.00 with 2.40 of tax included. <p>See "Numbered Elements," page 15.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p> <p>Note This value is the sales tax. For Visa transactions, this value must be between 0.1% and 22% of the total sale.</p> <p>Note For Visa and American Express, if this value is 0 (zero), the order is tax exempt.</p> <p>Important For Mastercard, do not set this field to 0 (zero).</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) 	<p>Visa & Mastercard: String (11)</p> <p>American Express: String (9)</p>

Table 13 Item-Level Fields for FDC Nashville Global (Continued)

CyberSource Field Name	FDC Nashville Global Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitOfMeasure	Item Bulk/Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161 See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R for reduced interchange) 	String (12)
item_#_unitPrice	Item Unit Cost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0). Important For Mastercard, do not set this field to 0 (zero).	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (13)

FDMS Nashville: Level II

Transaction Requirements



When you send a capture or credit request with Level II data, you must include the required fields for every capture or credit request. For information about the non-Level-II fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Order-Level Fields

Table 14 Order-Level Fields for FDMS Nashville

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_taxable	<p>Flag that indicates whether an order is taxable. Possible values:</p> <ul style="list-style-type: none"> ■ <code>true</code>: the order is taxable. ■ <code>false</code>: the order is not taxable. 	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa ■ Mastercard 	String (5)
invoiceHeader_userPO	<p>Value used by your customer to identify the order. This value is typically a purchase order number. CyberSource recommends that you do not populate the field with all zeros or nines.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) 	String (25)
shipTo_postalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa ■ Mastercard 	String (10)

Item-Level Fields

Table 15 Item-Level Fields for FDMS Nashville

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15 .	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_unitPrice	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 .	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (15)

FDMS South: Level II

Transaction Requirements



When you send a capture or credit request with Level II data, you must include the required fields for every capture or credit request. For information about the non-Level-II fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Order-Level Fields

Table 16 Order-Level Fields for FDMS South

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_purchaserCode	Customer ID reference number that identifies the customer for a Level II transaction.	Level II <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) 	String (17)
invoiceHeader_purchaserVATRegistrationNumber	Identification number assigned to the purchasing company by the tax authorities.	Level II <ul style="list-style-type: none"> ■ Visa 	String (13)
invoiceHeader_summaryCommodityCode	Categorizes purchases for VAT reporting.	Level II <ul style="list-style-type: none"> ■ Visa 	String (4)
invoiceHeader_taxable	Flag that indicates whether an order is taxable. Possible values: <ul style="list-style-type: none"> ■ true: the order is taxable. ■ false: the order is not taxable. 	Level II <ul style="list-style-type: none"> ■ Visa ■ Mastercard 	String (5)
invoiceHeader_userPO	Value used by your customer to identify the order. This value is typically a purchase order number. CyberSource recommends that you do not populate the field with all zeros or nines.	Level II <ul style="list-style-type: none"> ■ Visa (R for purchase/ procurement cards; otherwise O) ■ Mastercard (R for purchase/ procurement cards; otherwise O) 	String (25)
purchaseTotals_dutyAmount	Total charges for any import or export duties included in the order. This value cannot be negative.	Level II <ul style="list-style-type: none"> ■ Mastercard 	String (15)

Table 16 Order-Level Fields for FDMS South (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_postalCode	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric]</p> <p>Example A1B 2C4</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Mastercard 	String (10)
shipTo_country	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Mastercard 	String (2)
shipTo_postalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Mastercard (R for purchase/procurement cards; otherwise O) 	String (10)

Item-Level Fields

Table 17 Item-Level Fields for FDMS South

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_invoiceNumber	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See " Numbered Elements ," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_nationalTax	Amount of national tax or value added tax for countries in which more than one tax is applied. Provide this value if item_#_nationalTax differs from item_#_taxAmount . If you do not provide this value, CyberSource assumes that item_#_nationalTax is equal to item_#_taxAmount . See " Numbered Elements ," page 15.	Level II <ul style="list-style-type: none"> ■ Visa ■ Mastercard 	String (15)
item_#_taxAmount	Total tax to apply to the product. This value cannot be negative. See " Numbered Elements ," page 15. The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency. If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API .	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (15)
item_#_unitPrice	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See " Numbered Elements ," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (15)

Table 17 Item-Level Fields for FDMS South (Continued)

CyberSource Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_vatRate	Rate used to calculate VAT. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa ■ Mastercard 	String (5)

GPN: Level II and Level III

Transaction Requirements



Important

When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specification that CyberSource used to implement Level II and Level III processing for GPN is the *Global Payments Big Batch Message Specification, Version 2006.001*, January 2006.

Order-Level Fields

Table 18 Order-Level Fields for GPN

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding GPN field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding GPN field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_merchantVATRegistrationNumber	Merchant VAT Number	Your government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (20)
invoiceHeader_purchaserOrderDate	Order Date	Date the order was processed. Format: YYMMDD.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (6)
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Number	Customer's government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Visa: String (15) Mastercard: String (20)
invoiceHeader_summaryCommodityCode	Summary Commodity Code and Commodity Code	International description code of the overall order's goods or services. Contact your acquirer or GPN for a list of codes. This field might be required for Level III processing depending on your merchant category code. Check with your processor.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (4)

Table 18 Order-Level Fields for GPN (Continued)

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_supplierOrderReference	Item Description	Text description of the item.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (25)
invoiceHeader_userPO	Market Data - "m" Customer Code and Reference Number	Value used by your customer to identify the order. This value is typically a purchase order number.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa: String (17) Mastercard: String (25)
otherTax_alternateTaxAmount	Other Tax	Total amount of alternate tax for the order. Maximum amount is 99,999.99.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (12)
otherTax_nationalTaxAmount	National Tax	National tax for the order. Maximum amount is 99,999.99.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (12)
otherTax_vatTaxAmount	VAT/Tax Amount (Freight/Shipping)	Tax amount applied to freight / shipping costs.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (12)
otherTax_vatTaxRate	VAT/Tax Rate (Freight/Shipping)	Tax rate applied to freight / shipping costs. Example 0.040 (=4%)	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (4)
purchaseTotals_discountAmount	Discount Amount	Total discount applied to the order. For example: a 20.00 discount off the order total. Maximum amount is 99,999.99. This field might be required for Level III processing depending on your merchant category code. Check with your processor.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
purchaseTotals_dutyAmount	Duty Amount	Total charges for any import or export duties included in the order. Maximum amount is 99,999.99.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
purchaseTotals_freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. Maximum amount is 99,999.99. When you include this field in your request, you must also include purchaseTotals_grandTotalAmount .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)

Table 18 Order-Level Fields for GPN (Continued)

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_postalCode	Ship From Postal/Zip Code	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric]</p> <p>Example A1B 2C4</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)
shipTo_country	Destination Country Code	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (2)
shipTo_postalCode	Destination Postal/Zip Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)
shipTo_state	Destination State/Province Code	<p>State or province of the shipping address. Use the <i>State, Province, and Territory Codes for the United States and Canada</i>.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (2)

Item-Level Fields

Table 19 Item-Level Fields for GPN

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxRate	Tax Rate N	Tax rate applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (5)
item_#_commodityCode	Item Commodity Code	International description code used to classify the item. Contact your acquirer or GPN for a list of codes. See "Numbered Elements," page 15. This field might be required for all Level III processing depending on your merchant category code. Check with your processor.	Level III <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	Visa: String (12) Mastercard: String (15)
item_#_discountAmount	Item Discount	Discount applied to the item. Maximum amount is 99,999.99. See "Numbered Elements," page 15. This field might be required for all Level III processing depending on your merchant category code. Check with your processor.	Level III <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	String (12)
item_#_discountRate	Item Discount Rate	Rate the item is discounted. See "Numbered Elements," page 15. Example 5.25 (=5.25%)	Level III <ul style="list-style-type: none"> ■ Mastercard (Required for Level III interchange) 	String (5)
item_#_invoiceNumber	No corresponding GPN field	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)

Table 19 Item-Level Fields for GPN (Continued)

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_productCode	Product Code	<p>Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is <code>default</code>. See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15.</p> <p>For ccAuthService, when you set this field to a value other than <code>default</code> or any of the values related to shipping or handling, the item_#_quantity, item_#_productName, and item_#_productSKU fields are required.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	<p>Visa: String (12)</p> <p>Mastercard: String (15)</p>
item_#_quantity	Item Quantity	<p>Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource uses 1. See "Numbered Elements," page 15.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	Integer (12)

Table 19 Item-Level Fields for GPN (Continued)

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	Level II: Amount 2 Level III: Tax Amount N	<p>Total tax to apply to the product. This value cannot be negative.</p> <p>The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency.</p> <p>Maximum amount is 99,999.99. See "Numbered Elements," page 15.</p> <p>For Level II, if you do not include this field in your request, CyberSource sets this field to the default value of 0.</p> <p>For Level II, this value is the sales tax. For Visa Level II transactions, this value must be zero or must be between 0.1% and 22% of the total sale.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	<p>Level II: String (10)</p> <p>Level III: String (12)</p>
item_#_unitOfMeasure	Unit of Measure	Unit of measure for the item. See "Numbered Elements," page 15 .	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	String (12)

Table 19 Item-Level Fields for GPN (Continued)

CyberSource Field Name	GPN Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitPrice	Unit Price	<p>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. Maximum amount is 99,999.99. See "Numbered Elements," page 15.</p> <p>Important For a Level III transaction, this value cannot be zero (0).</p> <p>Note For each item that you include in a request, you must include an item_#_unitPrice field.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Required for Level III interchange) ■ Mastercard (Required for Level III interchange) 	String (10)

OmniPay Direct: Level II and Level III

Transaction Requirements



Important

When you send a capture request with Level II or Level III data or both, you must include the required fields for every capture request. For information about the non-Level-II and non-Level-III fields required for capture requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Supported Acquirers

On OmniPay Direct, the acquirers that support Level II and Level III data are:

- Bank of America Merchant Services
- Cardnet International
- First Data Merchant Solutions (Europe)

Processor Specification

The specification that CyberSource used to implement Level II and Level III processing for OmniPay Direct is *OmniPay 80Byte Electronic File Specifications, version 4.9*, September 2015.

Order-Level Fields

Table 20 Order-Level Fields for OmniPay Direct

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding OmniPay Direct field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures) ■ Mastercard (R for captures) 	String (1)
invoiceHeader_merchantVATRegistrationNumber	Merchant VAT Registration / Single Business Reference Number / Merchant Tax ID / Corporation VAT Number	Your government-assigned tax identification number.	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	String (21)
invoiceHeader_purchaserOrderDate	Order Date	Date the order was processed. Format: YYMMDD.	Level II <ul style="list-style-type: none"> ■ Visa (O) Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (6)

Table 20 Order-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Registration Number	Customer's government-assigned tax identification number.	Level II <ul style="list-style-type: none"> ■ Visa (O) Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (13)
invoiceHeader_summaryCommodityCode	Summary Commodity Code	International description code of the overall order's goods or services. Contact your acquirer for a list of codes.	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (4)
invoiceHeader_supplierOrderReference	Purchase Identifier / Merchant Related Data / Merchant Reference Number	Text description of the item.	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	Visa: String (25) Mastercard: String (17)
invoiceHeader_taxable	Detail Tax Amount Indicator	Flag that indicates whether tax is included in the total purchase amount. Possible values: <ul style="list-style-type: none"> ■ <code>true</code>: tax is included in total purchase amount and tax is sum of values for all item_#_taxAmount fields. ■ <code>false</code>: tax is not included in total purchase amount. 	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (5)

Table 20 Order-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ userPO	Customer Code / Customer Reference ID	Value used by your customer to identify the order. This value is typically a purchase order number.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	Visa: String (17) Mastercard: String (25)
otherTax_ localTaxIndicator	Local Tax Included	Flag that indicates whether local sales tax is included in the order total. Possible values: <ul style="list-style-type: none"> ■ 0: local sales tax not included ■ 1: local sales tax included ■ 2: tax exempt order 	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (1)
otherTax_ nationalTaxAmount	National Tax	National tax for the order. When you include this field in the request, you must also include the item_#_taxAmount field in the request.	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (12)
otherTax_ nationalTaxIndicator	National Tax Included	Flag that indicates whether a national tax is included in the order total. Possible values: <ul style="list-style-type: none"> ■ 0: national tax not included ■ 1: national tax included 	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (1)
otherTax_ vatTaxAmount	VAT (Amount)	Total amount of VAT or other tax included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (12)

Table 20 Order-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_vatTaxRate	VAT (Rate)	Rate of VAT or other tax for the order. Example 0.04 (=4%) Valid range: 0.01 to 0.99 (1% to 99%)	Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (4)
purchaseTotals_discountAmount	Discount Amount / Total Discount	Total discount applied to the order.	Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R) 	String (12)
purchaseTotals_dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level II <ul style="list-style-type: none"> ■ Visa (O) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (12)
purchaseTotals_freightAmount	Freight Amount / Shipping Amount	Total freight or shipping and handling charges for the order. For a Level II transaction with Visa, CyberSource sets the value for this field to zero (0) when you do not include it in the request.	Level II <ul style="list-style-type: none"> ■ Visa (O) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (O) 	String (12)
purchaseTotals_grandTotalAmount	Line Item Total	Grand total for the entire request.	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (12)

Table 20 Order-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_ taxAmount	Tax Amount / Total Tax Amount	Total tax amount for all the items in the order.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R for interchange rates) 	String (12)
shipFrom_postalCode	Ship From Postal / ZIP Code	Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits. When the goods ship from the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 When the goods ships from Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] Example A1B 2C3	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)
shipTo_country	Destination Country Code	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (3)

Table 20 Order-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Destination Postal / ZIP Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>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</p> <p>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</p> <p>This value is the same as the value for the shipFrom_postalCode field when your customer takes possession of the items at your location. The postal code must consist of 5 to 9 digits.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)

Item-Level Fields

Table 21 Item-Level Fields for OmniPay Direct

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxAmount	VAT / Tax Amount (Freight or Shipping)	Tax amount on shipping/freight. See "Numbered Elements," page 15.	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (O) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) 	String (12)

Table 21 Item-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_ alternateTaxRate	VAT / Tax Rate (Freight or Shipping)	Rate used to generate the value for the item_#_ alternateTaxAmount field. See "Numbered Elements," page 15. When you include the item_#_ alternateTaxAmount and otherTax_nationalTaxAmount fields and do not include the item_#_alternateTaxRate field, CyberSource calculates the rate as otherTax_nationalTaxAmount x 100 / item_#_unitPrice.	Level II ■ Visa (R for interchange rates) Level III ■ Visa (R for interchange rates)	String (4)
item_#_ commodityCode	Item Commodity Code	International description code used to classify the item. Contact your acquirer for a list of codes. See "Numbered Elements," page 15.	Level II ■ Visa (R for interchange rates) ■ Mastercard (O) Level III ■ Visa (O) ■ Mastercard (O)	Visa: String (12) Mastercard: String (4)
item_#_ discountAmount	Discount Per Line Item / Discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates)	String (12)
item_#_ discountIndicator	Discount Indicator	Flag that indicates whether the amount is discounted. See "Numbered Elements," page 15. Possible values: ■ Y: amount is discounted ■ N: amount is not discounted	Level III ■ Mastercard (O)	String (1)

Table 21 Item-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_discountRate	Item Discount Rate	Rate at which the item is discounted. See "Numbered Elements," page 15 . Example 0.050 (=5%) Valid range: 0.010 to 0.999 (1% to 99.9%)	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (5)
item_#_productCode	Product Code	Type of product. This value is used to determine the product category: electronic, handling, physical, service, or shipping. The default value is <code>default</code> . See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15 . For ccAuthService , when you set this field to a value other than <code>default</code> or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_productName	Item Description	Text description of the item. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	String (26)
item_#_quantity	Quantity / Item Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource uses 1. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	Visa: Integer (4) Mastercard: Integer (12)

Table 21 Item-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	Tax Amount / Total Tax Amount	<p>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.</p> <p>The tax amount field is additive. The following example uses a two-exponent currency such as USD:</p> <p>1 You include the following items in your request:</p> <pre> 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 </pre> <p>2 The total amount authorized will be 32.40, not 30.00 with 2.40 of tax included.</p> <p>See "Numbered Elements," page 15.</p> <p>If you want to include the tax amount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R if otherTax_nationalTaxAmount is included) ■ Mastercard (R for interchange rates) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R if otherTax_nationalTaxAmount is included) ■ Mastercard (R for interchange rates) 	String (12)

Table 21 Item-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxRate	Tax Rate / Detail Tax Rate	Tax rate applied to the item. See "Numbered Elements," page 15. Example 0.08 (=8%) Valid range: 0.01 to 0.99 (1% to 99%)	Level II <ul style="list-style-type: none"> ■ Visa (R for interchange rates) Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	String (4)
item_#_taxStatusIndicator	Tax Collected Indicator	Flag that indicates whether sales tax is included in the value for the item_#_totalAmount field. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ true: sales tax is included; item_#_totalAmount value must be greater than zero. ■ false: sales tax is not included; item_#_totalAmount value must be zero. 	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (1)
item_#_totalAmount	Line Item Total / Extended Item Amount	Total purchase amount for the item. Normally calculated as the unit price * quantity. See "Numbered Elements," page 15.	Level II <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_unitOfMeasure	Unit of Measure Code / Item Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R for interchange rates) 	String (12)

Table 21 Item-Level Fields for OmniPay Direct (Continued)

CyberSource Field Name	OmniPay Direct Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitPrice	Unit Cost / Unit Price	<p>Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15.</p> <p>Important For a Level III transaction, this value cannot be zero (0).</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for interchange rates) ■ Mastercard (R for interchange rates) 	String (12)

Examples

Name-Value Pair Examples

Example 7 Level II Capture Request for Visa

```

ccCaptureService_authRequestID=0305782650000167905080
ccCaptureService_run=true
merchantID=test_merchant
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
invoiceHeader_merchantVATRegistrationNumber=GB-123445555
invoiceHeader_summaryCommodityCode=SUMM
invoiceHeader_supplierOrderReference=456456346
purchaseTotals_currency=USD
purchaseTotals_freightAmount=0.00
purchaseTotals_grandTotalAmount=9.95
item_0_taxAmount=1.00
item_0_taxRate=0.05
item_0_nationalTax=0.01
item_0_unitPrice=1.99
item_0_totalAmount=9.95
item_0_quantity=5
item_0_commodityCode=2222
item_0_alternateTaxRate=0.01
invoiceHeader_userPO=12345

```

Example 8 Level II Capture Reply for Visa

```
requestID=4738587991406000201200
purchaseTotals_currency=USD
ccAuthReply_amount=10.75
ccAuthReply_authorizationCode=791437
ccAuthReply_avsCode=1
ccAuthReply_processorResponse=00
ccCaptureReply_amount=9.95
ccCaptureReply_reconciliationID=5407385775
```

Example 9 Level III Capture Request for Visa

```
ccCaptureService_authRequestID=0305782650000167905080
ccCaptureService_run=true
merchantID=test_merchant
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
invoiceHeader_merchantVATRegistrationNumber=GB-123445555
invoiceHeader_summaryCommodityCode=1234
invoiceHeader_supplierOrderReference=456456346
invoiceHeader_userPO=12345
purchaseTotals_currency=USD
item_0_taxAmount=0.01
item_0_taxRate=0.05
item_0_unitPrice=1.99
item_0_totalAmount=9.95
item_0_quantity=5
item_0_productName=ABC Shirt - blue
item_0_alternateTaxRate=0.05
item_0_discountAmount=0.00
item_0_unitOfMeasure=EAC
purchaseTotals_discountAmount=0.01
purchaseTotals_grandTotalAmount=9.95
otherTax_vatTaxRate=0.08
purchaseTotals_freightAmount=0.00
item_alternateTaxRate=0.05
otherTax_nationalTaxIndicator=1
ccCaptureService_purchasingLevel=3
```

Example 10 Level III Capture Reply for Visa

```
requestID=4738587991406000201200
purchaseTotals_currency=USD
ccAuthReply_amount=9.95
ccAuthReply_authorizationCode=791437
ccAuthReply_avsCode=1
ccAuthReply_processorResponse=00
ccCaptureReply_amount=10.75
ccCaptureReply_reconciliationID=5407385775
ccCaptureReply_purchasingLevel3Enabled=Y
```

Example 11 Level II Capture Request for Mastercard

```

ccCaptureService_authRequestID=4756679462096005301540
ccCaptureService_run=true
merchantID=test_merchant
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
invoiceHeader_userPO=12345
invoiceHeader_merchantVATRegistrationNumber=GB-123445555
invoiceHeader_supplierOrderReference=456456346
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=9.95
item_0_taxAmount=1.00
item_0_unitPrice=1.99
item_0_totalAmount=9.95
item_0_quantity=5

```

Example 12 Level II Capture Reply for Mastercard

```

requestID=4738587991406000201200
purchaseTotals_currency=USD
ccAuthReply_amount=10.75
ccAuthReply_authorizationCode=791437
ccAuthReply_avsCode=1
ccAuthReply_processorResponse=00
ccCaptureReply_amount=9.95
ccCaptureReply_reconciliationID=5407385775

```

Example 13 Level III Capture Request for Mastercard

```

ccCaptureService_authRequestID=4756679462096005301540
ccCaptureService_run=true
merchantID=test_merchant
merchantReferenceCode=482046C3A7E94F5BD1FE3C66C
invoiceHeader_merchantVATRegistrationNumber=GB-123445555
invoiceHeader_userPO=12345
purchaseTotals_grandTotalAmount=9.95
purchaseTotals_currency=USD
item_0_taxAmount=1.00
item_0_taxRate=0.05
item_0_unitPrice=1.99
item_0_totalAmount=9.95
item_0_quantity=5
item_0_productName=ABC Shirt - blue
item_0_discountAmount=0.00
item_0_unitOfMeasure=EAC
ccCaptureService_purchasingLevel=3

```

Example 14 Level III Capture Reply for Mastercard

```

requestID=4738587991406000201200
purchaseTotals_currency=USD
ccAuthReply_amount=9.95
ccAuthReply_authorizationCode=791437
ccAuthReply_avsCode=1
ccAuthReply_processorResponse=00
ccCaptureReply_amount=10.75
ccCaptureReply_reconciliationID=5407385775
ccCaptureReply_purchasingLevel3Enabled=Y

```

XML Examples**Example 15 Level II Capture Request for Visa**

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.125">
  <merchantID>test_merchant</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <invoiceHeader>
    <merchantVATRegistrationNumber>GB-123445555</merchantVATRegistrationNumber>
    <summaryCommodityCode>1234</summaryCommodityCode>
    <supplierOrderReference>456456346</supplierOrderReference>
    <userPO>67867867867867867</userPO>
  </invoiceHeader>
  <item id="1">
    <taxAmount>1.00</taxAmount>
    <taxRate>0.05</taxRate>
    <nationaltax>0.01</nationalTax>
    <unitPrice>1.99</unitPrice>
    <quantity>5</quantity>
    <totalAmount>9.95</totalAmount>
    <commodityCode>2222</commodityCode>
    <alternateTaxRate>0.08</alternateTaxRate>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>9.95</grandTotalAmount>
    <freightAmount>0.00</freightAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>4756679462096005301540</authRequestID>
  </ccCaptureService>
</requestMessage>

```

Example 16 Level II Capture Reply for Visa

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.125">
  <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
  <c:requestID>4738587991406000201200</c:requestID>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:ccAuthReply>
    <c:amount>9.95</c:amount>
    <c:authorizationCode>791437</c:authorizationCode>
    <c:avsCode>1</c:avsCode>
    <c:processorResponse>00</c:processorResponse>
  </c:ccAuthReply>
  <c:ccCaptureReply>
    <c:amount>9.95</c:amount>
    <c:reconciliationID>5407385775</c:reconciliationID>
    <c:purchasingLevel3Enabled>Y</c:purchasingLevel3Enabled>
  </c:ccCaptureReply>
</c:replyMessage>
```

Example 17 Level III Capture Request for Visa

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.125">
  <merchantID>test_merchant</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <invoiceHeader>
    <merchantVATRegistrationNumber>GB-123445555</merchantVATRegistrationNumber>
    <summaryCommodityCode>1234</summaryCommodityCode>
    <supplierOrderReference>456456346</supplierOrderReference>
    <userPO>67867867867867867</userPO>
  </invoiceHeader>
  <item id="1">
    <unitPrice>1.99</unitPrice>
    <quantity>5</quantity>
    <productName>ABC Shirt - blue</productName>
    <nationalTax>0.01</nationalTax>
    <taxRate>0.05</taxRate>
    <unitOfMeasure>EAC</unitOfMeasure>
    <totalAmount>9.95</totalAmount>
    <discountAmount>0</discountAmount>
    <alternateTaxRate>0.08</alternateTaxRate>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <discountAmount>0.00</discountAmount>
    <grandTotalAmount>9.95</grandTotalAmount>
    <freightAmount>0.00</freightAmount>
  </purchaseTotals>
  <otherTax>
    <vatTaxRate>0.08</vatTaxRate>
    <nationalTaxIndicator>1</nationalTaxIndicator>
  </otherTax>
  <ccCaptureService run="true">
    <authRequestID>4756679462096005301540</authRequestID>
    <purchasingLevel>3</purchasingLevel>
  </ccCaptureService>
</requestMessage>

```

Example 18 Level III Capture Reply for Visa

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.125">
  <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
  <c:requestID>4738587991406000201200</c:requestID>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:ccAuthReply>
    <c:amount>9.95</c:amount>
    <c:authorizationCode>791437</c:authorizationCode>
    <c:avsCode>1</c:avsCode>
    <c:processorResponse>00</c:processorResponse>
  </c:ccAuthReply>
  <c:ccCaptureReply>
    <c:amount>9.95</c:amount>
    <c:reconciliationID>5407385775</c:reconciliationID>
    <c:purchasingLevel3Enabled>Y</c:purchasingLevel3Enabled>
  </c:ccCaptureReply>
</c:replyMessage>

```

Example 19 Level II Capture Request for Mastercard

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.125">
  <merchantID>test_merchant</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <invoiceHeader>
    <merchantVATRegistrationNumber>GB-123445555</merchantVATRegistrationNumber>
    <supplierOrderReference>456456346</supplierOrderReference>
    <userPO>67867867867867867</userPO>
  </invoiceHeader>
  <item id="1">
    <unitPrice>1.99</unitPrice>
    <quantity>5</quantity>
    <taxAmount>1.00</taxAmount>
    <totalAmount>9.95</totalAmount>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>9.95</grandTotalAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>4756679462096005301540</authRequestID>
  </ccCaptureService>
</requestMessage>

```

Example 20 Level II Capture Reply for Mastercard

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.125">
  <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
  <c:requestID>4738587991406000201200</c:requestID>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:ccAuthReply>
    <c:amount>9.95</c:amount>
    <c:authorizationCode>791437</c:authorizationCode>
    <c:avsCode>1</c:avsCode>
    <c:processorResponse>00</c:processorResponse>
  </c:ccAuthReply>
  <c:ccCaptureReply>
    <c:amount>9.95</c:amount>
  </c:ccCaptureReply>
</c:replyMessage>

```

Example 21 Level III Capture Request for Mastercard

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.125">
  <merchantID>test_merchant</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <invoiceHeader>
    <merchantVATRegistrationNumber>GB-123445555</merchantVATRegistrationNumber>
    <supplierOrderReference>456456346</supplierOrderReference>
    <userPO>67867867867867867</userPO>
  </invoiceHeader>
  <item id="1">
    <unitPrice>1.99</unitPrice>
    <quantity>5</quantity>
    <productName>ABC Shirt - blue</productName>
    <taxRate>0.80</taxRate>
    <taxAmount>1.00</taxAmount>
    <unitOfMeasure>EAC</unitOfMeasure>
    <totalAmount>9.95</totalAmount>
    <discountAmount>0</discountAmount>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>9.95</grandTotalAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>4756679462096005301540</authRequestID>
    <purchasingLevel>3</purchasingLevel>
  </ccCaptureService>
</requestMessage>

```

Example 22 Level III Capture Reply for Mastercard

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.125">
  <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
  <c:requestID>4738587991406000201200</c:requestID>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:ccAuthReply>
    <c:amount>9.95</c:amount>
    <c:authorizationCode>791437</c:authorizationCode>
    <c:avsCode>1</c:avsCode>
    <c:processorResponse>00</c:processorResponse>
  </c:ccAuthReply>
  <c:ccCaptureReply>
    <c:amount>9.95</c:amount>
    <c:reconciliationID>5407385775</c:reconciliationID>
    <c:purchasingLevel3Enabled>Y</c:purchasingLevel3Enabled>
  </c:ccCaptureReply>
</c:replyMessage>
```

RBS WorldPay Atlanta: Level II and Level III

Transaction Requirements



Important

When you send a capture request with Level II and Level III data, you must include the required fields for every capture request. For credit requests, RBS WorldPay Atlanta does not require you to indicate the request is for Level II or Level III processing. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



Important

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specification that CyberSource used to implement Level III processing for RBS WorldPay Atlanta is *RBS Worldpay API message specification, version 7.1.0, June 2, 2009*.

Order-Level Fields

Table 22 Order-Level Fields for RBS WorldPay Atlanta

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding RBS WorldPay Atlanta field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
invoiceHeader_merchantVATRegistrationNumber	Merchant VAT Number	Your government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (20)
invoiceHeader_purchaserOrderDate	Order Date	Date the order was processed. Format: YYMMDD.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	Numeric (6)
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Number	Customer's government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (13)
invoiceHeader_summaryCommodityCode	Commodity Code	International description code of the overall order's goods or services. Contact your acquirer for a list of codes.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (4)
invoiceHeader_taxable	Tax Exempt	Flag that indicates whether an order is taxable. Possible values: <ul style="list-style-type: none"> ■ true: the order is taxable. ■ false: the order is not taxable. <p>Note This field is required for Visa and Mastercard transactions that involve Level II data. If item_#_taxAmount equals 0, set this field to <i>false</i>. If item_#_taxAmount is greater than 0, set this field to <i>true</i>.</p>	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (5)

Table 22 Order-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_userPO	PC2 Customer ID	Value used by your customer to identify the order. This value is typically a purchase order number.	Level II <ul style="list-style-type: none"> ■ Visa (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) ■ Mastercard (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) Level III <ul style="list-style-type: none"> ■ Visa (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) ■ Mastercard (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) 	String (25)
invoiceHeader_vatInvoiceReferenceNumber	VAT Invoice Number	VAT invoice number associated with the transaction.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (15)
otherTax_alternateTaxAmount	VAT Tax Amount	Total amount of alternate tax for the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (8)

Table 22 Order-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ alternateTax Indicator	Alternate Tax Indicator	Flag that indicates whether the alternate tax amount (otherTax_ alternateTaxAmount) is included in the request. Possible values: <ul style="list-style-type: none"> 0: alternate tax amount is not included in the request. 1: alternate tax amount is included in the request. 	Level III <ul style="list-style-type: none"> Mastercard (R) 	String (1)
otherTax_ vatTaxAmount	VAT Tax Amount	Total amount of VAT or other tax included in the order.	Level III <ul style="list-style-type: none"> Visa (O) 	Numeric (8)
otherTax_ vatTaxRate	Tax Rate	Rate of VAT or other tax for the order. Example 0.0400 (=4%) Valid range: 0.0001 to 0.9999 (0.01% to 99.99%)	Level III <ul style="list-style-type: none"> Visa (O) 	Numeric (4)
purchaseTotals_ discountAmount	Discount Amount	Total discount applied to the order. For example: a 20.00 discount off the order total.	Level III <ul style="list-style-type: none"> Visa (O) 	Numeric (8)
purchaseTotals_ dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level III <ul style="list-style-type: none"> Visa (O) Mastercard (O) 	Numeric (8)
purchaseTotals_ freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_ grandTotalAmount .	Level III <ul style="list-style-type: none"> Visa (O) Mastercard (O) 	Numeric (8)
purchaseTotals_ grandTotalAmount	Amount	Grand total for the entire capture or credit request.	Level III <ul style="list-style-type: none"> Visa (R) Mastercard (R) 	String (15)

Table 22 Order-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_postalCode	Origin Zip	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric]</p> <p>Example A1B 2C4</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Recommended) ■ Mastercard (Recommended) 	String (10)
shipTo_country	Destination Country Code	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p> <p>If the request does not include this value, CyberSource uses the billTo_country value. If you do not provide either of these values, CyberSource uses the default value of US.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (Recommended for best rate) 	String (3)

Table 22 Order-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Destination Zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>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</p> <p>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</p> <p>If the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. If the postal code for the billing address is not included in the request message, the postal code for the shipping address is required.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (Recommended for best rate) 	String (10)

Item-Level Fields

Table 23 Item-Level Fields for RBS WorldPay Atlanta

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxID	Alternate Tax ID	Your tax ID number to use for the alternate tax amount. You must provide this value if you include Alternate Tax Amount in the request. Providing this value is optional if you do not Alternate Tax Amount. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Mastercard (See description) 	String (15)
item_#_commodityCode	Commodity Code	International description code used to classify the item. Contact your acquirer for a list of codes. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) 	String (12)
item_#_discountAmount	Discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	Numeric (8)
item_#_discountRate	Discount Rate	Rate the item is discounted. See "Numbered Elements," page 15. Example 5.25 (=5.25%)	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	Numeric (5)
item_#_grossNetIndicator	Gross Net Indicator	Flag that indicates whether the tax amount is included in the Line Item Total. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> ■ Y: item amount includes tax amount ■ N: item amount does not include tax amount 	Level III <ul style="list-style-type: none"> ■ Mastercard (R) 	String (1)
item_#_invoiceNumber	No corresponding RBS WorldPay Atlanta field	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)

Table 23 Item-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_productCode	Product Code	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is default. See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15 . For ccAuthService , when you set this field to a value other than default or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_productName	Description	Text description of the item. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (35)
item_#_quantity	Quantity	Number of units of the item purchased. This value must be a whole number. If you do not provide this value, CyberSource uses 1. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa: Numeric (10) Mastercard: Numeric (8)

Table 23 Item-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	Tax Amount	<p>Total tax to apply to the product. This value cannot be negative. If no tax is present, you can send in a value of 0. See "Numbered Elements," page 15.</p> <p>The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Numeric (8)
item_#_taxRate	Tax Rate	<p>Tax rate applied to the item. See "Numbered Elements," page 15.</p> <p>Valid range is 0.0001 to 0.9999 (0.01% to 99.99%). The value can also be zero.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Mastercard (O) 	Numeric (4)

Table 23 Item-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxTypeApplied	Tax Type	Type of tax being applied to the item. See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ 0000: unknown tax type ■ 0001: federal/national sales tax ■ 0002: state sales tax ■ 0003: city sales tax ■ 0004: local sales tax ■ 0005: municipal sales tax ■ 0006: other tax ■ 0010: value-added tax ■ 0011: goods and services tax ■ 0012: provincial sales tax ■ 0013: harmonized sales tax ■ 0014: Quebec sales tax (QST) ■ 0020: room tax ■ 0021: occupancy tax ■ 0022: energy tax ■ Blank: tax not supported on line item. 	Level III <ul style="list-style-type: none"> ■ Mastercard (R) 	String (4)
item_#_totalAmount	Line Total	Total purchase amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R. Do not use all zeros or spaces.) 	Numeric (8)

Table 23 Item-Level Fields for RBS WorldPay Atlanta (Continued)

CyberSource Field Name	RBS WorldPay Atlanta Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitOfMeasure	Unit Of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161 . See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_unitPrice	Unit Cost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0).	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Visa: Numeric (10) Mastercard: Numeric (8)

TSYS Acquiring Solutions: Level II and Level III



CyberSource does not support Level II processing for the American Express card type on TSYS Acquiring Solutions.

Transaction Requirements



When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates



This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Processor Specification

The specification that CyberSource used to implement Level III processing for TSYS Acquiring Solutions (Vital) is *Vital's EIS 1081, Level III Line Item Processing, version 6.4*, April 2004.

The records referenced are:

- Transaction Detail Record — Optional Data; Groups 25, 26, and 27
- Visa Card Non-T&E and Fleet (Non-fuel) Line Item Detail Record
- Mastercard Non-T&E and Fleet (Non-fuel) Line Item Detail Record

Order-Level Fields

Table 24 Order-Level Fields for TSYS Acquiring Solutions

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding TSYS Acquiring Solutions field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding TSYS Acquiring Solutions field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_merchantVATRegistrationNumber	Merchant VAT Registration Number	Your government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (20)
invoiceHeader_purchaserOrderDate	Order Date	Date the order was processed. Format: YYMMDD.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (6)

Table 24 Order-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_purchaserVATRegistrationNumber	Customer VAT Registration Number	Customer's government-assigned tax identification number.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (13)
invoiceHeader_summaryCommodityCode	Summary Commodity Code	International description code of the overall order's goods or services. Contact your acquirer for a list of codes.	Level III <ul style="list-style-type: none"> ■ Visa (R) 	String (4)
invoiceHeader_userPO	No corresponding TSYS Acquiring Solutions field	Value used by your customer to identify the order. This value is typically a purchase order number.	Level II <ul style="list-style-type: none"> ■ Visa (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) ■ Mastercard (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) Level III <ul style="list-style-type: none"> ■ Visa (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) ■ Mastercard (R for purchase/procurement cards; otherwise O. Do not use all zeros or nines.) 	String (25)
invoiceHeader_vatInvoiceReferenceNumber	Unique VAT Invoice Reference Number	VAT invoice number associated with the transaction.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (15)

Table 24 Order-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_ alternateTaxAmount	Alternate Tax Amount	Total amount of alternate tax for the order.	Level III ■ Mastercard (O)	String (10)
otherTax_ alternateTax Indicator	Alternate Tax Indicator	Flag that indicates whether the alternate tax amount (otherTax_ alternateTaxAmount) is included in the request. Possible values: ■ 0: alternate tax amount is not included in the request. ■ 1: alternate tax amount is included in the request.	Level III ■ Mastercard (O)	String (1)
otherTax_ localTaxAmount	Local Tax	Sales tax for the order.	Level III ■ Visa (O) ■ Mastercard (O)	String (13)
otherTax_ localTaxIndicator	Local Tax Included Flag	Flag that indicates whether local sales tax is included in the order total. Possible values: ■ 0: local sales tax not included ■ 1: local sales tax included ■ 2: tax exempt order If you do not provide this value, CyberSource sets this field to one of the following values: ■ 0 if you set Local Tax = 0 or do not provide a Local Tax ■ 1 if you set Local Tax > 0 Important For GSA (General Services Administration) purchasing cards, tax is required in order to qualify for Level III when processing with TSYS Acquiring Solutions. Therefore, the only valid Level III value for this field for GSA cards is 1. If you have any questions or concerns, contact your acquirer.	Level III ■ Visa (O) ■ Mastercard (O)	String (1)
otherTax_ nationalTaxAmount	National Tax Amount	National tax for the order.	Level III ■ Visa (O) ■ Mastercard (O)	String (13)

Table 24 Order-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
otherTax_nationalTaxIndicator	National Tax Included Flag	Flag that indicates whether a national tax is included in the order total. Possible values: <ul style="list-style-type: none"> ■ 0: national tax not included ■ 1: national tax included If you do not provide this value, CyberSource sets this field to 1 if you provide a National Tax Amount greater than 0.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (1)
otherTax_vatTaxAmount	VAT/Tax Amount	Total amount of VAT or other tax included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (13)
otherTax_vatTaxRate	VAT/Tax Rate	Rate of VAT or other tax for the order. Example 0.0400 (=4%) Valid range: 0.0001 to 0.9999 (0.01% to 99.99%)	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (6)
purchaseTotals_discountAmount	Discount Amount	Total discount applied to the order. For example: a 20.00 discount off the order total.	Level III <ul style="list-style-type: none"> ■ Visa (O) 	String (13)
purchaseTotals_dutyAmount	Duty Amount	Total charges for any import or export duties included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (13)
purchaseTotals_freightAmount	Freight Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_grandTotalAmount .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (13)
purchaseTotals_grandTotalAmount	No corresponding TSYS Acquiring Solutions field	Grand total for the entire capture or credit request.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (15)

Table 24 Order-Level Fields for TSYs Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipFrom_postalCode	Ship From Postal/ZIP Code	<p>Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [space][numeric][alpha] [numeric]</p> <p>Example A1B 2C4</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (Recommended for best rate. Do not use all zeros or nines.) 	String (10)
shipTo_country	Destination Country Code	<p>Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i>.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (O but recommended) 	String (2)

Table 24 Order-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Destination Postal/ZIP Code	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location. The postal code must consist of 5 to 9 digits.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (Recommended for best rate. Do not use all zeros or nines.) 	String (10)
shipTo_state	No corresponding TSYS Acquiring Solutions field	<p>State or province of the shipping address. Use the <i>State, Province, and Territory Codes for the United States and Canada</i>.</p>	<p>If any shipping information is in the request, this field is required for CyberSource front-end processing.</p>	String (2)

Item-Level Fields

Table 25 Item-Level Fields for TSYS Acquiring Solutions

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxID	Alternate Tax Identifier	Your tax ID number to use for the alternate tax amount. You must provide this value if you include Alternate Tax Amount in the request. Providing this value is optional if you do not Alternate Tax Amount. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> Mastercard (See description) 	String (15)
item_#_commodityCode	Item Commodity Code	International description code used to classify the item. Contact your acquirer for a list of codes. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> Visa (R) 	String (12)
item_#_discountAmount	Visa: Discount Per Line Item Mastercard: Discount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> Visa (O) Mastercard (O) 	String (13)
item_#_discountIndicator	Discount Indicator	Flag that indicates whether the amount is discounted. See "Numbered Elements," page 15. Possible values: <ul style="list-style-type: none"> Y: amount is discounted N: amount is not discounted If you do not provide a value but you set Discount Amount to a value greater than zero, CyberSource sets this field to Y.	Level III <ul style="list-style-type: none"> Mastercard (O) 	String (1)
item_#_discountRate	Item Discount Rate	Rate the item is discounted. See "Numbered Elements," page 15. Example 5.25 (=5.25%)	Level III <ul style="list-style-type: none"> Mastercard (O) 	String (6)

Table 25 Item-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_grossNetIndicator	Net/Gross Indicator	Flag that indicates whether the tax amount is included in the Line Item Total. See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ Y: item amount includes tax amount ■ N: item amount does not include tax amount 	Level III <ul style="list-style-type: none"> ■ Mastercard (R) 	String (1)
item_#_invoiceNumber	No corresponding TSYS Acquiring Solutions field	Field to support an invoice number for a transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_productCode	Product Code	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is default. See Appendix C, "Product Codes," on page 170 for a list of valid values. See "Numbered Elements," page 15 . For ccAuthService , when you set this field to a value other than default or any of the values related to shipping or handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (Recommended for best rate. Do not use all zeros or spaces.) 	String (12)
item_#_productName	Visa: Item Descriptor Mastercard: Item Description	Text description of the item. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R. Do not use all zeros or spaces.) 	String (35)

Table 25 Item-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_quantity	Visa: Quantity Mastercard: Item Quantity	Number of units of the item purchased. Must be a whole number. If you do not provide this value, CyberSource uses 1. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (Recommended for best rate) ■ Mastercard (Recommended for best rate. Do not use all zeros or spaces.) 	Integer (12)
item_#_taxAmount	Visa: VAT/Tax Amount Mastercard: Tax Amount	Total tax to apply to the product. This value cannot be negative. See "Numbered Elements," page 15. The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency. If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (13)
item_#_taxRate	Visa: VAT/Tax Rate Mastercard: Tax Rate Applied	Tax rate applied to the item. See "Numbered Elements," page 15. Valid range is 0.0001 to 0.9999 (0.01% to 99.99%). The value can also be zero.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R) 	String (6)
item_#_taxTypeApplied	Tax Type Applied	Type of tax being applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Mastercard (O) 	String (4)

Table 25 Item-Level Fields for TSYS Acquiring Solutions (Continued)

CyberSource Field Name	TSYS Acquiring Solutions Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_totalAmount	Visa: Line Item Total Mastercard: Extended Item Amount	Total purchase amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R. Do not use all zeros or spaces.) 	Visa: String (13) Mastercard: String (10)
item_#_unitOfMeasure	Visa: Unit of Measure/Code Mastercard: Item Unit of Measure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (R. Do not use all zeros or spaces.) 	String (12)
item_#_unitPrice	Unit Cost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15. Important For a Level III transaction, this value cannot be zero (0).	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (11)

Examples

Example 23 Level III Capture Request for Visa with Name-Value Pairs

```
merchantID=infodev
ccCaptureService_run=true
ccCaptureService_purchasingLevel=3
merchantReferenceCode=R98TV09EN200W
purchaseTotals_currency=USD
ccCaptureService_authRequestID=0839543530000172034078
invoiceHeader_userPO=4119480
shipTo_state=CA
shipTo_country=US
shipTo_postalCode=94043
item_0_unitPrice=59.95
item_0_quantity=10
item_0_productName=File Cabinet
item_0_taxAmount=49.46
item_0_totalAmount=648.96
item_1_unitPrice=4.99
item_1_quantity=50
item_1_productName=File Folders
item_1_productName=20.58
item_1_totalAmount=270.08
purchaseTotals_grandTotalAmount=919.04
```

Example 24 Level III Capture Request for Mastercard with XML

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.23">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>R98TV09EN200W</merchantReferenceCode>
  <invoiceHeader>
    <userPO>4119480</userPO>
  </invoiceHeader>
  <shipTo>
    <state>CA</state>
    <postalCode>94041</postalCode>
    <country>US</country>
  </shipTo>
  <shipFrom>
    <postalCode>42651</postalCode>
  </shipFrom>
  <item id="0">
    <unitPrice>59.95</unitPrice>
    <quantity>10</quantity>
    <productName>File Cabinet</productName>
    <taxAmount>49.46</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>648.96</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <item id="1">
    <unitPrice>4.99</unitPrice>
    <quantity>50</quantity>
    <productName>File Folders</productName>
    <taxAmount>20.58</taxAmount>
    <unitOfMeasure>each</unitOfMeasure>
    <taxRate>0.0825</taxRate>
    <totalAmount>270.08</totalAmount>
    <grossNetIndicator>Y</grossNetIndicator>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>919.04</grandTotalAmount>
  </purchaseTotals>
  <ccCaptureService run="true">
    <authRequestID>0839543530000172034078</authRequestID>
    <purchasingLevel>3</purchasingLevel>
  </ccCaptureService>
</requestMessage>

```

Worldpay VAP: Level II and Level III

**Note**

Worldpay VAP was previously called *Little*.

Transaction Requirements

**Important**

When you send a capture or credit request with Level II or Level III data or both, you must include the required fields for every capture or credit request. For information about the non-Level-II and non-Level-III fields required for capture and credit requests, see [Credit Card Services Using the Simple Order API](#).

Interchange Rates

**Important**

To qualify for Level III interchange rates for Visa and Mastercard, you need to include at least one item in your request.

**Important**

This document provides guidelines that indicate which fields are needed in order to obtain the best interchange rates. These guidelines are based on industry information. CyberSource recommends that you contact your acquirer for the most current information because the payment card companies can change their requirements at any time.

Data Types

Fields for amounts and tax rates use a string data type. However, you should include only numbers and a decimal point in those fields.

Order-Level Fields

Table 26 Order-Level Fields for Worldpay VAP

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccCaptureService_purchasingLevel	No corresponding Worldpay VAP field	Flag that indicates the capture request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for captures; not used for credits) ■ Mastercard (R for captures; not used for credits) 	String (1)
ccCreditService_purchasingLevel	No corresponding Worldpay VAP field	Flag that indicates the credit request includes Level III data. Set the value for this field to 3. For more information, see "Requesting Captures and Credits with Level III Data," page 17.	Level III <ul style="list-style-type: none"> ■ Visa (R for credits; not used for captures) ■ Mastercard (R for credits; not used for captures) 	String (1)
invoiceHeader_amexDataTAA1 invoiceHeader_amexDataTAA2 invoiceHeader_amexDataTAA3 invoiceHeader_amexDataTAA4	item Description	<p>Four transaction advice addendum fields. These fields are used to display descriptive information about a transaction on your customer's American Express card statement. If you are sending any TAA fields, start with invoiceHeader_amexDataTAA1, then ...TAA2, and so on. Skipping a TAA field causes subsequent TAA fields to be ignored.</p> <p>Contact CyberSource Customer Support if you plan to use these fields so that your account can be configured appropriately.</p> <p>If you request a follow-on credit for an American Express Level II capture that included TAA data and if the TAA data is not included in the follow-on credit request, CyberSource uses the TAA data from the capture request.</p>	Level II <ul style="list-style-type: none"> ■ American Express (R) 	String (26)
invoiceHeader_merchantVATRegistrationNumber	cardAcceptor TaxId	<p>Your government-assigned tax identification number.</p> <p>For Visa, Worldpay VAP uses the value in your Worldpay VAP account.</p>	Level III <ul style="list-style-type: none"> ■ Visa (Not used) ■ Mastercard (O) 	String (20)

Table 26 Order-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
invoiceHeader_ purchaserOrderDate	orderDate	Date the order was processed. If this value is not included in the request, CyberSource uses today's date. Format: YYYY-MM-DD.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (10)
invoiceHeader_ taxable	taxExempt	Flag that indicates whether the order is taxable. This value is: <ul style="list-style-type: none"> ■ Required if the sum of all item_#_taxAmount values = 0. ■ Optional if the sum of all item_#_taxAmount values > 0. Possible values: <ul style="list-style-type: none"> ■ true: the order is taxable. ■ false: the order is not taxable. 	Level II <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) ■ American Express (See description) Level III <ul style="list-style-type: none"> ■ Visa (See description) ■ Mastercard (See description) 	String (5)
invoiceHeader_ userPO	customer Reference	Value used by your customer to identify the order. This value is typically a purchase order number.	Level II <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) ■ American Express (R) Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (17)
invoiceHeader_ vatInvoiceReference Number	invoice Reference Number	Invoice number associated with the transaction.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (Not used) 	String (15)
purchaseTotals_ discountAmount	discount Amount	Total discount applied to the order.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (8)
purchaseTotals_ dutyAmount	dutyAmount	Total charges for any import or export duties included in the order.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (8)

Table 26 Order-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
purchaseTotals_freightAmount	shipping Amount	Total freight or shipping and handling charges for the order. When you include this field in your request, you must also include purchaseTotals_grandTotalAmount .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (8)
shipFrom_postalCode	shipFrom PostalCode	Postal code for the address from which the goods are shipped, which is used to determine nexus. The default is the postal code associated with your CyberSource account. CyberSource recommends that this value not exceed 10 characters. If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example 12345-6789 If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] Example A1B 2C4	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (20)
shipTo_country	destination CountryCode	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> . If this value is not included in the request, CyberSource uses the billTo_country value from the authorization request.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (3)

Table 26 Order-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	destination PostalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>This value is the same as the value for shipFrom_postalCode when your customer takes possession of the items at your location. CyberSource recommends that this value not exceed 10 characters. If this value is not included in the request, CyberSource uses the billTo_postalCode value from the authorization request.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (20)

Item-Level Fields

The maximum number of items you can include in a request is:

- American Express Level II: 4 items
- Mastercard Level III: 99 items
- Visa Level III: 99 items

Table 27 Item-Level Fields for Worldpay VAP

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_alternateTaxAmount	taxAmount	Amount collected for a special type of tax. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (Not used) ■ Mastercard (O) 	String (8)
item_#_alternateTaxID	cardAcceptorTaxId	Your tax ID number to use for the alternate tax amount. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (Not used) ■ Mastercard (O) 	String (20)
item_#_alternateTaxRate	taxRate	Tax rate for the special tax. See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (Not used) ■ Mastercard (O) 	String (5)
item_#_alternateTaxType	taxType Identifier	Flag that indicates the type of tax collected for item_#_alternateTaxAmount . See "Numbered Elements," page 15 . Possible values: <ul style="list-style-type: none"> ■ 00: unknown ■ 01: federal or national sales tax ■ 02: states sales tax ■ 03: city sales tax ■ 04: local sales tax ■ 05: municipal sales tax ■ 06: other tax ■ 10: value-added tax (VAT) ■ 11: goods and services tax (GST) ■ 12: provincial sales tax ■ 13: harmonized sales tax ■ 14: Quebec sales tax ■ 20: room tax ■ 21: occupancy tax ■ 22: energy tax 	Level III <ul style="list-style-type: none"> ■ Visa (Not used) ■ Mastercard (O) 	String (2)

Table 27 Item-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_commodityCode	commodity Code	International description code used to classify the item. Contact your acquirer for a list of codes. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (12)
item_#_discountAmount	itemDiscount Amount	Discount applied to the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (8)
item_#_invoiceNumber	No corresponding Worldpay VAP field	Invoice number for the transaction. You must specify the number of line items that will include an invoice number. By default, the first line item will include an invoice number field. The invoice number field can be included for up to 10 line items. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (O) ■ Mastercard (O) 	String (23)
item_#_productCode	productCode	Product code for the item. In the United States, this may be a UPC code, part number, or product number. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_productName	item Description	Text description of the item. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (26)
item_#_quantity	quantity	Number of units of the item purchased. Must be a whole number. See "Numbered Elements," page 15.	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	Integer (9)

Table 27 Item-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_taxAmount	taxAmount	<p>Total tax to apply to the product. This value cannot be negative.</p> <p>The item_#_taxAmount field is additive. For example, if you send one item with unitPrice of 10.00 and taxAmount of 0.80, and you send another item with unitPrice of 20.00 and taxAmount of 1.60, the total amount authorized will be for 32.40, not 30.00 with 2.40 of tax included. The item_#_taxAmount and the item_#_unitPrice must be in the same currency.</p> <p>For Level II, if you do not include this field in your request, CyberSource sets this field to the default value of 0. See "Numbered Elements," page 15.</p> <p>If you want to include item_#_taxAmount and also request the taxService service, see Tax Calculation Service Using the Simple Order API.</p>	<p>Level II</p> <ul style="list-style-type: none"> ■ Visa (R for the best rate for corporate cards; R if invoiceHeader_taxable = true; otherwise, O.) ■ Mastercard (R for the best rate for corporate cards; R if invoiceHeader_taxable = true; otherwise, O.) ■ American Express (R for the best rate for corporate cards; R if invoiceHeader_taxable = true; otherwise, O.) <p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R for the best rate for corporate cards; R if invoiceHeader_taxable = true; otherwise, O.) ■ Mastercard (R for the best rate for corporate cards; R if invoiceHeader_taxable = true; otherwise, O.) 	String (8)
item_#_totalAmount	lineltemTotal	<p>Total purchase amount for the item. Normally calculated as the unit price x quantity. See "Numbered Elements," page 15.</p>	<p>Level III</p> <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (8)

Table 27 Item-Level Fields for Worldpay VAP (Continued)

CyberSource Field Name	Worldpay VAP Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitOfMeasure	unitOfMeasure	Unit of measure, or unit of measure code, for the item. See Appendix A, "Codes for Units of Measurement," on page 161 . See "Numbered Elements," page 15 .	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (R) 	String (12)
item_#_unitPrice	unitCost	Per-item price of the product. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places. See "Numbered Elements," page 15 . Important For a Level III transaction, this value cannot be zero (0).	Level III <ul style="list-style-type: none"> ■ Visa (R) ■ Mastercard (O) 	String (12)

Codes for Units of Measurement

The following table lists the codes for units of measurement used in international trade.

Table 28 Codes for Units of Measurement

Value	Description
EA	Unknown unit of measure
ACR	Acre (4840 yd ²)
AMH	Ampere-hour (3.6 kC)
AMP	Ampere
ANN	Year
APZ	Ounce GB, US (31.10348 g) (tr oz.)
ARE	Are (100 m ²)
ASM	Alcoholic strength mass
ASV	Alcoholic strength by volume
ATM	Standard atmosphere (101325 Pa)
ATT	Technical atmosphere (98066.5 Pa)
BAR	Bar
BFT	Board foot
BG	Unknown unit of measure
BHP	Brake horsepower (745.7 W)
BHX	Hundred boxes
BIL	Billion Eur (trillion US)
BLD	Dry barrel (115.627 dm ³)
BLL	Barrel
BQL	Becquerel
BTU	British thermal unit (1.055 Kilojoules)
BUA	Bushel (35.2391 dm ³)
BUI	Bushel (36.36874 dm ³)
BX	Unknown unit of measure
C	Unknown unit of measure
CA	Unknown unit of measure

Table 28 Codes for Units of Measurement (Continued)

Value	Description
CCT	Carrying capacity in metric tons
CD	Unknown unit of measure
CDL	Candela
CEL	Celsius degrees
CEN	Hundred
CGM	Centigram
CKG	Coulomb per kg
CLF	Hundred leaves
CLT	Centiliter
CMK	Square centimeter
CMT	Centimeter
CNP	Hundred packs
CNT	Cental GB (45.359237 kg)
COU	Coulomb
CS	Unknown unit of measure
CTM	Metric carat (200 Mg = 2.10 ⁻⁴ kg)
CUR	Curie
CWA	Hundredweight US (45.3592 kg)
D	Unknown unit of measure
DAA	Decare
DAD	Ten days
DAY	Day
DEC	Decade (10 years)
DLT	Deciliter
DMK	Square decimeter
DMQ	Cubic decimeter
DMT	Decimeter
DPC	Dozen pieces
DPT	Displacement tonnage
DRA	Dram US (3.887935 g)
DRI	Dram GB (1.771745 g)
DRL	Dozen rolls
DRM	Drachm gm (3.887935 g)
DTH	Hectokilogram
DTN	Centner / Quintal, metric (100 kg) (decitonne)

Table 28 Codes for Units of Measurement (Continued)

Value	Description
DWT	Pennyweight GB, US (1.555174 g)
DZ	Unknown unit of measure
DZN	Dozen
DZP	Dozen packs
DZR	Dozen pairs
EA	Unknown unit of measure
EAC	Each
FAH	Fahrenheit degrees
FAR	Farad
FOT	Foot (.3048 m)
FT	Unknown unit of measure
FTK	Square foot
FTQ	Cubic foot
G	Unknown unit of measure
GAL	Unknown unit of measure
GBQ	Gigabequerel
GFI	Gram of fissile isotopes
GGR	Great gross (12 gross)
GIA	Gill (11.8294 cm ³)
GII	Gill (0.142065 dm ³)
GLD	Dry gallon (4.404884 dm ³)
GLI	Gallon (4.546092 dm ³)
GLL	Liquid gallon (3.78541 dm ³)
GRM	Gram
GRN	Grain GB, US (64.798910 mg)
GRO	Gross
GRT	Gross (Register) ton
GWH	Gigawatt-hour (1 Million kWh)
HAR	Hectare
HBA	Hectobar
HGM	Hectogram
HIU	Hundred international units
HLT	Hectoliter
HMQ	Million cubic meters
HMT	Hectometer

Table 28 Codes for Units of Measurement (Continued)

Value	Description
HPA	Hectoliter of pure alcohol
HTZ	Hertz
HUR	Hour
INH	Inch (25.4 mm)
INK	Square inch
INQ	Cubic inch
ITM	Item
JOU	Joule
KBA	Kilobar
KEL	Kelvin
KGM	Kilogram
KGS	Kilogram per second
KHZ	Kilohertz
KJO	Kilojoule
KMH	Kilometer per hour
KMK	Square kilometer
KMQ	Kilogram per cubic meter
KMT	Kilometer
KNI	Kilogram of nitrogen
KNS	Kilogram of named substance
KNT	Knot (1 nautical mile per hour)
KPA	Kilopascal
KPH	Kilogram of caustic potash (kilogram of potassium hydroxide)
KPO	Kilogram of potassium oxide
KPP	Kilogram of phosphoric anhydride (kilogram of phosphoric pentoxide)
KSD	Kilogram of substance 90% dry
KSH	Kilogram of caustic soda
KTN	Kilotonne
KUR	Kilogram of uranium
KVA	Kilovolt-ampere
KVR	Kilovar
KVT	Kilovolt
KWH	Kilowatt-hour

Table 28 Codes for Units of Measurement (Continued)

Value	Description
KWT	Kilowatt
LBR	Pound GB, US (0.45359237 kg)
LBS	Unknown unit of measure
LBT	Troy pound, US (373.242 g)
LEF	Leaf
LPA	Liter of pure alcohol
LTN	Long ton GB, US (1.0160469 T)
LTR	Liter (1 dm ³)
LUM	Lumen
LUX	Lux
MAL	Megaliter
MAM	Megameter
MAW	Megawatt
MBE	Thousand standard brick equivalent
MBF	Thousand board-feet (2.36 m ³)
MBR	Millibar
MCU	Millicurie
MGM	Milligram
MHZ	Megahertz
MIK	Square mile
MIL	Thousand
MIN	Minute
MIO	Million
MIU	Million international units
MLD	Billion US (milliard)
MLT	Milliliter
MMK	Square millimeter
MMQ	Cubic millimeter
MMT	Millimeter
MON	Month
MPA	Megapascal
MQH	Cubic meter per hour
MQS	Cubic meter per second
MSK	Meter per second squared
MTK	Square meter

Table 28 Codes for Units of Measurement (Continued)

Value	Description
MTQ	Cubic meter
MTR	Meter
MTS	Meter per second
MVA	Megavolt-ampere (1000 kva)
MWH	Megawatt-hour (1000 kWh)
NAR	Number of articles
NBB	Number of bobbins
NCL	Number of cells
NEW	Newton
NIU	Number of international units
NMB	Number
NMI	Nautical mile (1852 m)
NMP	Number of packs
NMR	Number of pairs
NPL	Number of parcels
NPT	Number of parts
NRL	Number of rolls
NTT	Net (register) ton
OHM	Ohm
ONZ	Ounce GB, US (28.349523 g)
OZA	Fluid ounce (29.5735 cm ³)
OZI	Fluid ounce (28.413 cm ³)
PAL	Pascal
PCB	Piece
PCE	Unknown unit of measure
PER	Unknown unit of measure
PGL	Proof gallon
PK	Unknown unit of measure
PTD	Dry pint (0.55061 dm ³)
PTI	Pint (0.568262 dm ³)
PTL	Liquid pint (0.473176 dm ³)
QAN	Quarter (of a year)
QTD	Dry quart (1.101221 dm ³)
QTI	Quart (1.136523 dm ³)
QTL	Liquid quart (0.946353 dm ³)

Table 28 Codes for Units of Measurement (Continued)

Value	Description
QTR	Quarter, GB (12.700586 kg)
RL	Unknown unit of measure
RM	Unknown unit of measure
RPM	Revolution per minute
RPS	Revolution per second
SAN	Half year (6 months)
SCO	Score
SCR	Scruple GB, US (1.295982 g)
SEC	Second
SET	Set
SHT	Shipping ton
SIE	Siemens
SMI	(Statute) mile (1609.344 m)
SST	Short Standard (7200 matches)
ST	Unknown unit of measure
STI	Stone GB (6.350293 kg)
STN	Short ton GB, US (0.90718474 T)
TAH	Thousand ampere-hour
TNE	Metric ton (1000 kg) (tonne (1000 kg))
TPR	Ten pairs
TQD	Thousand cubic meters per day
TRL	Trillion EUR
TSD	Tonne of substance 90% dry
TSH	Ton of steam per hour
VLТ	Volt
WCD	Cord (3.63 m ³)
WEB	Weber
WEE	Week
WHR	Watt-hour
WSD	Standard
WTT	Watt
YDK	Square yard
YDQ	Cubic yard
YRD	Yard (0.9144 m)

Exemption Status Values

Status for exemption from sales and use tax. Use these values for the `item_#_otherTax_#_statusIndicator` field on American Express Direct.

Table 29 Exemption Status Values

Value	Description
0	Exempt (for export)
1	Yes (tax exempt)
2	No (not tax exempt)
3	Exempt (for resale)
4	Not exempt (for resale)
5	Exempt (not for resale)
6	Not exempt (not for resale)
7	Direct pay ID
8	Exempt (sale to US government)
9	Exempt (per state law)
A	Labor taxable, material exempt
B	Material taxable, labor exempt
C	Not taxable
D	Disabled
E	Exempt toll service
F	Exempt (goods and services tax)
G	Exempt (provincial sales tax)
H	Homestead
I	Agriculture
J	Working farm
K	Open space
L	Exempt local service
M	Disabled veteran
N	Non-homestead
O	Over 65

Table 29 Exemption Status Values (Continued)

P	Exempt from school property tax
Q	Exempt from local property tax
R	Recurring exempt
S	Exempt from county property tax
T	Total exempt
U	Usage exempt
V	Exempt from state property tax
W	Other property tax exemption
X	Exempt, letter on file

Product Codes

The following table lists the values you can use for the product code in the `item_#_productCode` request field.

Table 30 Product Codes

Product Code	Definition
adult_content	Adult content.
coupon	Coupon applied to the entire order.
default	Default value for the product code. CyberSource uses <code>default</code> when a request message does not include a value for the product code.
electronic_good	Electronic product other than software.
electronic_software	Software distributed electronically rather than on disks or other media.
gift_certificate	Gift certificate.
handling_only	Fee that you charge your customer to cover your administrative selling costs.
service	Service that you perform for your customer.
shipping_and_handling	The shipping portion is the charge for shipping the product to your customer. The handling portion is the fee you charge your customer to cover your administrative selling costs.
shipping_only	Charge for transporting tangible personal property from your location to your customer. You must maintain documentation that clearly establishes the location where the title to the property passed from you to your customer.
subscription	Subscription to a web site or other content.

Reference Data Codes

Code that identifies reference data. Use these values for the **invoiceHeader_**
referenceDataCode field on American Express Direct.

Table 31 Reference Data Codes

Value	Description
11	Account number (general ledger)
19	Division identifier
21	Tracking number
53	User location number (SWIFT MT 202)
ACE	Service request number
BP	Adjustment control number or purchasing organization part number
BT	Batch number
C1	Customer material specification number
CA	Cost allowance reference or cost center number
DP	Department number
EB	Service agreement number
JB	Project number
K8	Project paragraph number
LC	Lease number
LG	Lease schedule number
LT	Lot number
MJ	Model number
MZ	Maintenance request number
PK	Packing list number
PT	Purchase option agreement
R8	Rental agreement number
RQ	Purchase requisition number
SE	Serial number
TN	Transaction reference number
WO	Work order number