

Tax Calculation Service

Using the SCMP API

August 2018

CyberSource[®]
the power of payment

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Recent Revisions to This Document

Release	Changes
August 2018	Reintroduced the invoice_date field. See "Request-Level Fields," page 22 , for details.
July 2018	Deleted the content and fields that were added for the March 2018 update regarding a new tax report. This new tax report is not yet available.
June 2018	Removed support for Egypt, India, and Solomon Islands. Added a disclaimer for China support. See "Supported Countries," page 39 . Updated this Recent Revisions table to clarify the April 2018 update to the Canadian Taxes section.
April 2018	Updated content about Canadian Taxes to clarify the calculation and use of HST. See "Canadian Taxes," page 10 .
March 2018	Added "Reports," page 14 . Added five request fields. See "Request-Level Fields," page 22 , for details. <ul style="list-style-type: none"> ■ invoice_date ■ tax_commit_indicator ■ tax_date_override_reason ■ tax_refund_indicator ■ tax_reporting_date Added two reply fields. See "Reply Fields," page 34 , for details. <ul style="list-style-type: none"> ■ tax_commit_indicator ■ tax_refund_indicator
December 2017	This revision contains only editorial changes and no technical updates.

About This Guide

Audience and Purpose

This guide is written for application developers who want to use the CyberSource SCMP API to integrate tax calculation into an order management system.

Implementing the CyberSource tax calculation service requires software development skills. You must write code that uses the API request and reply fields to integrate the tax calculation service into an existing order management system.

Conventions

Note and Important Statements



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



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

Text and Command Conventions

The following text conventions are used in this document:

Table 1 Text Conventions

Convention	Meaning
bold	Field and service names in text; for example: Include the ics_applications 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 ics_applications field to <code>ics_auth</code>.

Related Documents

- *Getting Started with CyberSource Advanced for the SCMP API* describes how to get started using the SCMP API. ([PDF](#) | [HTML](#))
- *Credit Card Services Using the SCMP API* explains how to use the CyberSource SCMP API to access the CyberSource Credit Card Services. ([PDF](#) | [HTML](#))
- *Electronic Check Services Using the SCMP API* describes how to process electronic check orders. ([PDF](#) | [HTML](#))
- The *Business Center Reporting Developer Guide* describes how to create and download reports that you can use to manage your transactions. ([PDF](#) | [HTML](#))

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 Tax Calculation

Terminology

Table 2 Tax Service Terminology

Term	Description
Canadian Goods & Services Tax (GST)	Canadian value-added tax levied on most goods and services sold for domestic consumption. The GST is paid by consumers, but it is levied and remitted to the government by businesses selling the goods and services.
Canadian Harmonized Sales Tax (HST)	Consumption tax in Canada. It is used in provinces where both the federal goods and services tax (GST) and the regional provincial sales tax (PST) have been combined into a single value-added sales tax.
Canadian Provincial Sales Tax (PST)	Sales tax levied by the provinces in Canada.
Canadian Quebec Sales Tax (QST)	Value added tax levied in the province of Quebec.
Jurisdiction	An area subject to its own distinct tax regulations, such as a municipality, province, city, county, or country.
Point-of-order acceptance	The place of business where you accept/approve the customer's order, thereby becoming contractually obligated to make the sale.
Point-of-order origin	The location of the buyer at the time of placing the order.
Product codes	Numbers unique to the tax service that specify the product you are selling in order to trigger product-based rules and exemptions.
Tax holiday	Time period during which taxes are temporarily reduced or eliminated. Governments create tax holidays to promote consumer spending.
Tax nexus	The presence of a business within a tax jurisdiction such that the taxing locality has authority to require the business to comply with the tax statutes and regulations of the jurisdiction. For more information about tax liability, consult your tax specialist or attorney.
Value-added tax (VAT)	Consumption tax calculated as a percentage of the sales price. The tax is levied on the seller of a product (passed on to the consumer in the total price) for only the amount of value they add to it; the seller may deduct the amount of VAT paid previously to acquire/produce the product. See " International Taxes and Value-Added Tax (VAT) ," page 11.

Overview of Tax Calculation

The tax calculation service provides real-time tax calculation for worldwide orders placed with your business. The tax calculation service enhances your ability to conduct business globally while enabling you to avoid the risk and complexity of managing online tax calculation. For a list of countries in which the tax calculation service is available, see [Appendix C, "Supported Countries," on page 39](#).



Important

IMPORTANT NOTICE FOR USERS OF CYBERSOURCE TAX SERVICES

The tax calculation is based on the location of the customer's taxing jurisdiction, your nexus locations, and the tax and product codes that you provide to CyberSource. The order price and quantity are included in the calculation to determine the order's total tax amount.

You are solely responsible for selecting the appropriate tax and product codes for your business and its goods and services, including with respect to shipping and handling, and providing those codes to CyberSource.

CYBERSOURCE DOES NOT PROVIDE TAX CONSULTATION SERVICES, ACCOUNTING OR LEGAL ADVICE AND ASSUMES NO OBLIGATION, LIABILITY OR RESPONSIBILITY FOR ANY INCORRECT, INACCURATE, OR INCOMPLETE INFORMATION PROVIDED TO CYBERSOURCE, OR FOR ANY INCORRECT TAX CALCULATIONS RESULTING FROM SUCH INFORMATION. CYBERSOURCE STRONGLY RECOMMENDS THAT YOU CONSULT WITH A TAX PROFESSIONAL IN CONNECTION WITH YOUR SELECTION OF TAX-RELATED DATA FOR INPUT INTO THE CYBERSOURCE TAX CALCULATION SYSTEM.

The tax calculation service determines the following types of taxes, as appropriate for a customer's order:

- U.S. sales taxes
- Canadian Goods and Services Tax (GST)
- Canadian Provincial Sales Tax (PST)
- Canadian Harmonized Sales Tax (HST)
- Quebec Sales Tax (QST)
- International (non-U.S./Canadian) and Value-Added Tax (VAT)

The calculation is based on the location of the customer's taxing jurisdiction, your nexus locations, and the tax and product codes that you provide to CyberSource. The order price and quantity are included in the calculation to determine the order's total tax.



Note

The tax calculation service is not recommended for merchants conducting business with countries other than the countries listed in [Appendix C, "Supported Countries," on page 39](#).

You can use the Business Center, where you can:

- View transaction details, including taxes
- Process customers' payments and credits

After you register your merchant ID with CyberSource, you can use the test version of the Business Center at <https://ebctest.cybersource.com>. After you go live, you can also use the production version at <https://ebc.cybersource.com>. The username and password that you use to log in to either site is your merchant ID and the password you established when you registered the merchant ID with CyberSource.

After you log in to the production or test version of the Business Center, click the **Help** button on any page for additional information.

U.S. Sales Tax

For U.S. orders, sales tax is imposed on a transfer of property. Some states do not have sales tax. For U.S. orders, the tax calculation service includes sales tax in the total tax value and divides it into state, county, city, and special levels.

Canadian Taxes

For Canadian orders, GST is administered by the federal government and is equivalent to U.S. sales tax. Canadian goods and services can also be subject to HST, PST, and QST (see "Terminology," page 8).

Follow the same procedures to calculate taxes for Canada as you do for the United States, taking into consideration the following points:

- The tax calculation service returns:
 - GST as a country-level tax
 - PST and QST as state-level taxes
 - HST as the sum of GST and PST
- Use only Canadian dollars for all Canadian taxes



Note

If you want the tax calculation service to return HST as one field, contact CyberSource Customer Support to configure your account accordingly.

International Taxes and Value-Added Tax (VAT)

International taxes are calculated for countries other than the U.S. Specifically, some countries have a VAT, which is sales tax chargeable on most goods and services. A VAT seller registration number may be required for some Canadian transactions. CyberSource supports international/VAT calculation in the countries listed in [Appendix C, "Supported Countries,"](#) on page 39.

Planning for Tax Calculation

To use the tax calculation service:

- Determine when you will provide a tax calculation during a customer transaction.
- Understand and comply with sales tax laws in the U.S. and Canada and international/VAT laws in other countries.
- Determine your tax nexus. See ["Tax Nexus,"](#) page 12.
- Determine if any products require special product codes for tax purposes. See ["Product Codes,"](#) page 12.



Important

If you want to use a product code that is not listed in the available guides, contact Customer Support for information about how to proceed.

International Taxes/VAT

To calculate international taxes/VAT:

- Determine the appropriate product codes if required by the countries with which you intend to do business. See ["Product Codes,"](#) page 12.
- Comply with any tax registration laws for the countries in which you intend to do business.
- Decide whether you want to apply your own tax calculations for any of the products.

Tax Nexus

U.S. and Canadian merchants have nexus in states or provinces in which they have some form of physical presence. For example, the physical presence requirement is satisfied if you:

- Maintain an office, warehouse, or other place of business within the state or province
- Maintain an inventory within the state or province
- Solicit orders in the state or province through the use of traveling sales staff
- Deliver goods in the state or province in your own vehicles



Important

Products are taxable only if your customer's state matches a state in which your company has nexus. In your tax calculation service request, if you do not specify the states in which you have nexus, the tax system assumes you have nexus in every state. If you are not sure where you have substantial nexus, consult your tax advisor.

Product Codes

When you request the tax calculation service, you can provide a separate product code for each item in the order. A product code is required in order to trigger product-based rules and exemptions. If you do not include a product code in your request, or if you include an invalid product code, the tax calculation service assumes that the product has no product-based tax exemptions and is fully taxable.

U.S. and Canadian Tax

Products that are fully taxable in all states do not need a product code because they do not have tax exemption in any state. For tax-exempt products or those with non-standard tax rates, use the product codes in the *Tax Product Code Guide*. For information about these codes, contact CyberSource Customer Support.

For example, software that is distributed electronically is exempt from tax in many states. If you are selling electronic software and you have nexus in any of these states and you do not include a product code, the tax calculation service would incorrectly calculate tax for these states because it would not recognize the exemption.

If you want to use a product code that is not listed in the guide, contact CyberSource Customer Support for information about how to proceed. Until the product code is supported, you can override the tax amount for the product by sending the amount of tax to apply to the item in the **tax_amount** field.

International and VAT Tax

For a list of available product codes for international taxes or VAT, see the *Tax Product Code Guide*. For information about these codes, contact CyberSource Customer Support. If you want to use a product code that is not listed in the guide, contact CyberSource Customer Support for information about how to proceed.

When to Perform Tax Calculation

You can calculate tax at these times during the order process:

- When the customer prompts for a subtotal or total.
- When the customer performs a final check out.
- When the order has shipped—this ensures the current tax rate is applied to the order.

For tax holidays, some states require you to apply the tax rate from the day of the actual purchase and not the day that the item is shipped. Work with your tax advisor to determine when to calculate the tax.

Multiple Shipping Destinations in a Single Order

You cannot specify a different shipping address for each item in an order. If the order contains multiple items that are going to different addresses, you must send a separate tax calculation service request for each item/shipping address.

Tax Consultation Services

CyberSource does not provide tax consultation services.



Due to the dynamic nature and complex intricacies of tax laws, especially at the local and municipal levels, automated tax calculation systems have inherent limitations that can affect the accuracy of returned tax rates in certain situations.

Automated tax calculation systems typically rely on city, state, and postal code to determine the applicable tax rate. However, a small number of local taxing jurisdictions within the United States assess taxes based on less common jurisdictional boundary criteria, especially in unincorporated areas. For example, tax rates can vary by jurisdiction as exercised by a specific police precinct. This occurs in a very small number of cases, but you need to educate your customer service staff so they can address the issue if it arises.

CyberSource strongly recommends that you consult your tax professional to make sure you are in compliance with the tax laws.

Maximum Line Items

Each tax service request that you send to CyberSource should not include more than 50 line items. If you send a request with more than 50 line items, your service request could time out.

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.

**Note**

This notification is included in all integration guides. Bill-to address information is required for tax calculation. CyberSource recommends additional address data for the most accurate tax calculation. For details, see "[Calculating U.S. and Canadian Tax](#)," page 16 and "[Calculating International Tax/VAT](#)," page 17.

Requesting Services

Requesting the Tax Calculation Service

To request the tax calculation service, set the **ics_applications** field to `ics_tax`. See [Appendix A, "API Fields," on page 21](#) for the list of required and optional fields to include in the request.

When requesting the tax calculation service, do not include the following services in the request:

- Full authorization reversal (**ics_auth_reversal**)
- Risk update (**ics_risk_update**)

To submit the total tax instead of having the tax calculation service calculate tax for the offer, use the **tax_amount** offer-level field. The **tax_amount** value is returned in the **tax_tax_amount0...N** reply field.

You cannot specify a different shipping address for each item in an order. If the order contains multiple items that are going to different addresses, you must send a separate tax calculation service request for each item/shipping address.



Important

CyberSource does not store any portion of the tax calculation service request. You cannot obtain information from CyberSource regarding previous tax calculation transactions. It is your responsibility to store the results and report to any applicable taxing jurisdiction.

Calculating U.S. and Canadian Tax

To use the tax calculation service to calculate tax for the U.S. or Canada:

- Identify the location of your company's nexus. Products are taxable only if your customer's **ship_to_state** value matches a state or province in which your company has nexus.

Use the **nexus** field to list the states or provinces in which your company has nexus. Or, if it is easier, use the **no_nexus** field to list states that should not be taxed. You cannot combine the **nexus** and **no_nexus** fields in the same request. If you do not specify your nexus locations, **ics_tax** assumes every state or province is taxable.

- If you do not specify your nexus locations, or if a value of the **nexus** field matches the value of **ship_to_state**, **ics_tax** calculates the applicable tax for the product.
- If the **ship_to_state** value does not match any state or province where you have nexus, **ics_tax** assigns zero tax.
- Determine whether the product is exempt from tax or subject to special tax considerations. See "[Product Codes](#)," page 12, for more information. If you want to use a product code that is not listed in the available guides, contact CyberSource Customer Support for information about how to proceed.
- Determine when you will provide tax calculations during the customer transaction. Tax calculation can occur before or after determining the final order total.

To receive the most accurate tax calculation possible, include the following information in the request:

- Ship-to address, in fields beginning with **ship_to_**
This is the location to which you ship the customer's order. If multiple cities are within a postal code area, the optional request field **ship_to_city** value improves the accuracy of the calculated tax.
- Ship-from address, in fields beginning with **ship_from_**
This is the location from which you ship the customer's order.
- Point-of-order acceptance, in fields beginning with **order_acceptance_**
For the description of point-of-order acceptance, see "[Terminology](#)," page 8.
- Point-of-order origin, in fields beginning with **order_origin...**
For the description of point-of-order origin, see "[Terminology](#)," page 8.
- Product code, in the **product_code** field
- Nexus, in the **nexus** field—or if it is easier, you can use the **no_nexus** field to provide a list of states in which you do not have nexus.

When the tax calculation service succeeds, the reply includes the **tax_tax_amount0...N** field. If the optional request-level field **show_tax_per_offer** is set to `yes`, the reply also includes the following fields for each offer:

- `tax_city_tax0...N`
- `tax_country_tax0...N`
- `tax_county_tax0...N`
- `tax_special_tax0...N`
- `tax_state_tax0...N`
- `tax_offer#_jurisdiction#_...` fields that provide detailed tax information. See ["Examples," page 18](#), and ["Reply Fields," page 34](#).



Note

The total tax value reported can be slightly higher or lower than the correct amount because the service separately determines city, county, state, country, and special taxes, rounds off these values to the nearest cent, and then sums these parts to arrive at the total tax value.

For example, 8.5% total tax that includes 1.25% city tax, 1.25% county tax, and 6% state tax, levied on a \$10 item would result in a total tax of \$0.86 (not \$0.85) based on amounts of \$0.13 city tax, \$0.13 county tax, and \$0.60 state tax.

Calculating International Tax/VAT

Before calculating international tax, make sure the country is on the list of supported countries. See [Appendix C, "Supported Countries," on page 39](#).

If you send a value in the request-level or offer-level **seller_registration** field and VAT rules and rates are applicable, then VAT tax will be calculated and the relevant tax amounts will be returned in the response.

International tax/VAT calculation requests use several different API fields unlike U.S. tax calculation requests. Pay attention to the requirements in the "Req/Opt for Intl. Tax/VAT" column in ["Request-Level Fields," page 22](#) and ["Offer-Level Fields," page 31](#).

Make sure you understand whether the product is exempt from tax or subject to special tax considerations. If it is the latter, provide the appropriate tax product code in the **product_code** field in the request. See ["Product Codes," page 12](#), for more information. If you want to use a product code that is not listed in the available guides, contact CyberSource Customer Support for information about how to proceed.

If the tax calculation service succeeds, the reply includes **tax_tax_amount0...N** for each item and indicates whether CyberSource calculated the tax or you supplied the tax.

Missing Origin Addresses

The destination address is substituted for the origin address if no origin address is specified. For the best results, CyberSource recommends using fully validated origin and destination addresses.

Invalid Address Combination Correction

The tax calculation service processes invalid address combinations of state, city, and postal code as long as the state and postal code combination is valid. For example, if the city, state, and postal code are Los Angeles, CA, and 94043, which is the ZIP code for Mountain View, the tax calculation service calculates tax for the city of Mountain View because the state and postal code are a valid combination.



Note

Abbreviations used for some city and county names are acceptable in more than one form. For example, St. Louis is acceptable as *Saint Louis*, *St Louis*, and *St. Louis*.

Examples

Example 1 Request

```
bill_address1=123 Main Street
bill_city=Small Town
bill_country=US
bill_state=CA
bill_zip=98765
card_type=001
currency=USD
customer_cc_expmo=10
customer_cc_expyr=2020
customer_cc_number=4111111111111111
customer_email=jsmith@example.com
customer_firstname=Jane
customer_lastname=Smith
ics_applications=ics_tax
merchant_id=infodev
merchant_ref_number=482046C3A7E94F5
offer0=product_category:physical^merchant_product_sku:07-12-00657^
product_name:Chewing Gum^product_code:50161815^quantity:1^
fulfillment_type:P^amount:1200.00
offer1=product_category:physical^merchant_product_sku:07-12-00659^
product_name:Sweet Biscuits or Cookies^product_code:50181905^
quantity:1^fulfillment_type:P^amount:1240.00
show_tax_per_offer=yes
```

Example 2 Reply

```

currency=usd
ics_rcode=1
ics_rflag=SOK
ics_rmsg=Request was processed successfully.
merchant_ref_number=482046C3A7E94F5
request_id=4819227573850172547493
tax_city_tax0=0.00
tax_city_tax1=0.00
tax_country_tax0=0.00
tax_country_tax1=0.00
tax_county_tax0=3.00
tax_county_tax1=3.10
tax_exempt_amount0=0.00
tax_exempt_amount1=0.00
tax_offer0_jurisdiction0_code=06
tax_offer0_jurisdiction0_country=US
tax_offer0_jurisdiction0_name=CALIFORNIA
tax_offer0_jurisdiction0_rate=0.062500
tax_offer0_jurisdiction0_region=CA
tax_offer0_jurisdiction0_tax_amount=75.00
tax_offer0_jurisdiction0_tax_name=CA STATE TAX
tax_offer0_jurisdiction0_taxable=1200.00
tax_offer0_jurisdiction0_type=State
tax_offer0_jurisdiction1_code=001
tax_offer0_jurisdiction1_country=US
tax_offer0_jurisdiction1_name=ALAMEDA
tax_offer0_jurisdiction1_rate=0.002500
tax_offer0_jurisdiction1_region=CA
tax_offer0_jurisdiction1_tax_amount=3.00
tax_offer0_jurisdiction1_tax_name=CA COUNTY TAX
tax_offer0_jurisdiction1_taxable=1200.00
tax_offer0_jurisdiction1_type=County
tax_offer0_jurisdiction2_code=EMAK0
tax_offer0_jurisdiction2_country=US
tax_offer0_jurisdiction2_name=ALAMEDA COUNTY DISTRICT TAX SP
tax_offer0_jurisdiction2_rate=0.020000
tax_offer0_jurisdiction2_region=CA
tax_offer0_jurisdiction2_tax_amount=24.00
tax_offer0_jurisdiction2_tax_name=CA SPECIAL TAX
tax_offer0_jurisdiction2_taxable=1200.00
tax_offer0_jurisdiction2_type=Special
tax_offer0_jurisdiction3_code=EMSJ0
tax_offer0_jurisdiction3_country=US
tax_offer0_jurisdiction3_name=ALAMEDA CO LOCAL TAX SL
tax_offer0_jurisdiction3_rate=0.010000
tax_offer0_jurisdiction3_region=CA
tax_offer0_jurisdiction3_tax_amount=12.00
tax_offer0_jurisdiction3_tax_name=CA SPECIAL TAX
tax_offer0_jurisdiction3_taxable=1200.00
tax_offer0_jurisdiction3_type=Special
tax_offer1_jurisdiction0_code=06
tax_offer1_jurisdiction0_country=US
tax_offer1_jurisdiction0_name=CALIFORNIA
tax_offer1_jurisdiction0_rate=0.062500
tax_offer1_jurisdiction0_region=CA
tax_offer1_jurisdiction0_tax_amount=77.50

```

```

tax_offer1_jurisdiction0_tax_name=CA STATE TAX
tax_offer1_jurisdiction0_taxable=1240.00
tax_offer1_jurisdiction0_type=State
tax_offer1_jurisdiction1_code=001
tax_offer1_jurisdiction1_country=US
tax_offer1_jurisdiction1_name=ALAMEDA
tax_offer1_jurisdiction1_rate=0.002500
tax_offer1_jurisdiction1_region=CA
tax_offer1_jurisdiction1_tax_amount=3.10
tax_offer1_jurisdiction1_tax_name=CA COUNTY TAX
tax_offer1_jurisdiction1_taxable=1240.00
tax_offer1_jurisdiction1_type=County
tax_offer1_jurisdiction2_code=EMAK0
tax_offer1_jurisdiction2_country=US
tax_offer1_jurisdiction2_name=ALAMEDA COUNTY DISTRICT TAX SP
tax_offer1_jurisdiction2_rate=0.020000
tax_offer1_jurisdiction2_region=CA
tax_offer1_jurisdiction2_tax_amount=24.80
tax_offer1_jurisdiction2_tax_name=CA SPECIAL TAX
tax_offer1_jurisdiction2_taxable=1240.00
tax_offer1_jurisdiction2_type=Special
tax_offer1_jurisdiction3_code=EMSJ0
tax_offer1_jurisdiction3_country=US
tax_offer1_jurisdiction3_name=ALAMEDA CO LOCAL TAX SL
tax_offer1_jurisdiction3_rate=0.010000
tax_offer1_jurisdiction3_region=CA
tax_offer1_jurisdiction3_tax_amount=12.40
tax_offer1_jurisdiction3_tax_name=CA SPECIAL TAX
tax_offer1_jurisdiction3_taxable=1240.00
tax_offer1_jurisdiction3_type=Special
tax_special_tax0=36.00
tax_special_tax1=37.20
tax_state_tax0=75.00
tax_state_tax1=77.50
tax_tax_amount0=114.00
tax_tax_amount1=117.80
tax_taxable_amount0=1200.00
tax_taxable_amount1=1240.00
tax_total_city_tax=0.00
tax_total_country_tax=0.00
tax_total_county_tax=6.10
tax_total_exempt_amount=0.00
tax_total_grand=2671.80
tax_total_special_tax=73.20
tax_total_state_tax=152.50
tax_total_tax=231.80
tax_total_taxable_amount=2440.00

```

API Fields

Formatting Requirements

Unless otherwise noted, all fields are order and case insensitive and the fields accept special characters such as @, #, and %.

**Note**

Values for request-level and offer-level fields must not contain carets (^) or colons (:). However, they can contain embedded spaces and any other printable characters. When you use more than one consecutive space, CyberSource removes the extra spaces.

Atos

The **bill_** fields must not contain colons (:).

Moneris

Values for request-level and offer-level fields must not contain these special characters: ampersands (&), single quotes ('), double quotes ("), less than signs (<), and greater than signs (>).

Data Type Definitions

Table 3 Data Type Definitions

Data Type	Description
Date and time	Format is YYYY-MM-DDThhmmssZ, where: <ul style="list-style-type: none"> ■ T separates the date and the time ■ Z indicates Coordinated Universal Time (UTC), also known as Greenwich Mean Time (GMT) Example 2018-08-11T22:47:57Z equals August 11, 2018, at 22:47:57 (10:47:57 p.m.)
Decimal	Number that includes a decimal point Example 23.45, -0.1, 4.0, 90809.0468
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
Nonnegative integer	Whole number greater than or equal to zero {0, 1, 2, 3, ...}
Positive integer	Whole number greater than zero {1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Request-Level Fields

Table 4 Request-Level Fields

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
bill_address1	First line of the billing street address. In the U.S., this information can be helpful in determining the ZIP+4, which the service can use when determining tax.	Optional	—	String (60)
bill_address2	Second line of the billing street address. In the U.S., this information can be helpful in determining the ZIP+4, which the service can use when determining tax.	Optional	—	String (60)

1 For U.S. and Canada only.

2 The field has no length limit due to the varying number of states and provinces that can be included in the list.

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

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
bill_city	Credit card billing city. Important It is your responsibility to determine whether a field is required for the transaction you are requesting. Important	Required ^{1, 3}	—	String (50)
bill_country	Credit card billing country. Use the two-character <i>ISO Standard Country Codes</i> . When ship_to_country is not provided, bill_country is used in its place. When bill_country is set to US or CA, bill_zip and bill_state are also required. Important It is your responsibility to determine whether a field is required for the transaction you are requesting. Important	Required ³	Required	String (2)
bill_state	Credit card billing state or province. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> . Important It is your responsibility to determine whether a field is required for the transaction you are requesting. Important	Required ^{1, 3}	—	String (2)

1 For U.S. and Canada only.
2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
bill_zip	<p>Postal code for the billing address. The postal code must consist of 5 to 9 digits.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p>Example 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha] [numeric][alpha][numeric]</p> <p>Example A1B 2C3</p> <p>Important It is your responsibility to determine whether a field is required for the transaction you are requesting.</p> <p>Important</p>	Required ^{1, 3}	—	String (10)
buyer_registration	Buyer's VAT registration number. See "International Taxes and Value-Added Tax (VAT)," page 11.	—	Optional	String (25)
currency	Currency used for the order. Use the standard ISO Standard Currency Codes . The default value is USD.	Optional	Required	String (5)
ics_applications	<p>CyberSource services to process for the request.</p> <p>At least one service must be specified in the request.</p>	Required	Required	String (255)

1 For U.S. and Canada only.
2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
invoice_date	Date of the tax calculation. Use format <i>YYYYMMDD</i> . You can provide a date in the past if you are calculating tax for a refund and want to know what the tax was on the date the order was placed. You can provide a date in the future if you are calculating the tax for a future date, such as an upcoming tax holiday. Note The default is the date, in Pacific time, that CyberSource receives the request. Keep this in mind if you are in a different time zone and want the tax calculated with the rates that apply on a specific date.	Optional	Optional	String (8)
merchant_id	Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required	Required	String (30)
merchant_ref_number	Merchant-generated order reference or tracking number. See Getting Started with CyberSource Advanced for the SCMP API for more information.	Required	Required	String (50)
nexus	Comma-separated list of states or provinces in which merchandise is taxable. Do not use both the nexus and no_nexus fields in your request. The default value for nexus is all states. Use the State, Province, and Territory Codes for the United States and Canada .	Either this field or no_nexus is required if you do not have nexus in every state or province.	—	String (no limit) ⁽²⁾
no_nexus	Comma-separated list of states or provinces in which merchandise is not taxable. Do not use both the nexus and no_nexus fields in your request. Use the State, Province, and Territory Codes for the United States and Canada .	Either this field or nexus is required if you do not have nexus in every state or province.	—	String (no limit) ⁽²⁾

1 For U.S. and Canada only.
2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
offer0...N	Offers for the request. An offer is a line item in the order. At a minimum, offer0 must be present.	Required	Required	String (50)
order_acceptance_city	Order acceptance city. This field is not used unless the order_acceptance_state and order_acceptance_country fields are present. For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (50)
order_acceptance_country	Order acceptance country. This field is not used unless the order_acceptance_state and order_acceptance_city fields are present. Use the two-character <i>ISO Standard Country Codes</i> . For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (2)
order_acceptance_state	Order acceptance state. This field is not used unless the order_acceptance_city and order_acceptance_country fields are present. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> . For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (2)
order_acceptance_zip	Order acceptance postal code. This field is not used unless the order_acceptance_city , order_acceptance_state , and order_acceptance_country fields are present. For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (10)
order_origin_city	Order origin city. This field is not used unless the order_origin_state and order_origin_country fields are present. For more information on order origin, see "Terminology," page 8.	Optional	—	String (50)

1 For U.S. and Canada only.
2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
3 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 14.](#) **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
order_origin_country	Order origin country. This field is not used unless the order_origin_state and order_origin_city fields are present. Use the two-character <i>ISO Standard Country Codes</i> . For more information on order origin, see "Terminology," page 8.	Optional	—	String (2)
order_origin_state	Order origin state. This field is not used unless the order_origin_city and order_origin_country fields are present. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> . For more information on order origin, see "Terminology," page 8.	Optional	—	String (2)
order_origin_zip	Order origin postal code. This field is not used unless the order_origin_city , order_origin_state , and order_origin_country fields are present. For more information on order origin, see "Terminology," page 8.	Optional	—	String (10)
seller_registration	VAT seller registration number. See "International Taxes and Value-Added Tax (VAT)," page 11. Note There is also an offer-level field named seller_registration . See "Offer-Level Fields," page 31.	—	Required for VAT	String (25)
ship_from_city	City from which the order is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This field is used only when ship_from_state and ship_from_country are present.	Optional	—	String (50)
ship_from_country	Country from which the order is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This field is used only when ship_from_city and ship_from_state are present. Use the two-character <i>ISO Standard Country Codes</i> .	Optional	Optional	String (2)

1 For U.S. and Canada only.

2 The field has no length limit due to the varying number of states and provinces that can be included in the list.

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

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
ship_from_state	State from which the order is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This field is used only when ship_from_city and ship_from_country are present. Use the State, Province, and Territory Codes for the United States and Canada .	Optional	—	String (2)
ship_from_zip	Postal code from which the order is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. 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][numeric][alpha][numeric] Example A1B 2C3	Optional	—	String (10)
ship_to_address1	First line of the shipping address. Required if any shipping information is included. Also see "Multiple Shipping Destinations in a Single Order," page 13.	Optional	—	String (60)
ship_to_address2	Second line of the shipping address. Also see "Multiple Shipping Destinations in a Single Order," page 13.	Optional	—	String (60)
ship_to_address3	Third line of the shipping address. Also see "Multiple Shipping Destinations in a Single Order," page 13.	Optional	—	String (60)

- 1 For U.S. and Canada only.
- 2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
- 3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
ship_to_city	<p>City of the shipping address.</p> <p>This field is used only when the ship_to_state and ship_to_country fields are present. Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	—	String (50)
ship_to_country	<p>Country of the shipping address. Use the two-character ISO Standard Country Codes.</p> <p>This field is used only when the ship_to_city and ship_to_state fields are present. Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	Optional	String (2)
ship_to_state	<p>State or province of the shipping address. Use the State, Province, and Territory Codes for the United States and Canada.</p> <p>The default value for ship_to_state is bill_state. This field is used only when the ship_to_city and ship_to_country fields are present. Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	—	String (2)

- 1 For U.S. and Canada only.
- 2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
- 3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 4 Request-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
ship_to_zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>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>When the postal code for the shipping address is not included in the request message, CyberSource uses the postal code for the billing address. When 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>Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	—	String (10)
show_tax_per_offer	<p>Whether or not to display tax amounts for each offer. This field can contain one of the following values:</p> <ul style="list-style-type: none"> ■ <code>yes</code>: Display tax amounts for each offer. ■ <code>no</code> (default): Do not display tax amounts for each offer. 	Optional	—	String (3)
timeout	<p>Number of seconds the system waits before returning a timeout error. The default is 110 seconds.</p>	Optional	Optional	Positive integer (3)

- 1 For U.S. and Canada only.
- 2 The field has no length limit due to the varying number of states and provinces that can be included in the list.
- 3 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 14. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Offer-Level Fields

Table 5 Offer-Level Fields

Field	Description	Req/Opt for U.S. & Canada	Req/Opt for VAT	Data Type & Length
amount	Per-item price of the product. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount will be truncated at the request level to the correct number of decimal places.	Required	Required	Decimal (15)
buyer_registration	Buyer's VAT registration number. See "International Taxes and Value-Added Tax (VAT)," page 11.	—	Optional	String (25)
merchant_product_sku	Product's identifier code. For ics_auth and ics_bill , required if product_code is not <code>default</code> or one of the values related to shipping and handling.	Optional	—	String (30)
order_acceptance_city	The order_acceptance_city field at the offer level overrides the corresponding request-level field. This field is not used unless the order_acceptance_state and order_acceptance_country fields are present. For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (50)
order_acceptance_country	The order_acceptance_country field at the offer level overrides the corresponding request-level field. This field is not used unless the order_acceptance_state and order_acceptance_city fields are present. Use the two-character ISO Standard Country Codes . For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (2)
order_acceptance_state	The order_acceptance_state field at the offer level overrides the corresponding request-level field. This field is not used unless the order_acceptance_city and order_acceptance_country fields are present. Use the State, Province, and Territory Codes for the United States and Canada . For more information on order acceptance, see "Terminology," page 8.	Optional	—	String (2)

Table 5 Offer-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canada	Req/Opt for VAT	Data Type & Length
order_acceptance_zip	The order_acceptance_zip field at the offer level overrides the corresponding request-level field. This field is not used unless the order_acceptance_city , order_acceptance_state , and order_acceptance_country fields are present. For more information on order acceptance, see "Terminology," page 8 .	Optional	—	String (10)
order_origin_city	The order_origin_city field at the offer level overrides the corresponding request-level field. This field is not used unless the order_origin_state and order_origin_country fields are present. For more information on order origin, see "Terminology," page 8 .	Optional	—	String (50)
order_origin_country	The order_origin_country field at the offer level overrides the corresponding request-level field. This field is not used unless the order_origin_state and order_origin_city fields are present. Use the two-character <i>ISO Standard Country Codes</i> . For more information on order origin, see "Terminology," page 8 .	Optional	—	String (2)
order_origin_state	The order_origin_state field at the offer level overrides the corresponding request-level field. This field is not used unless the order_origin_city and order_origin_country fields are present. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> . For more information on order origin, see "Terminology," page 8 .	Optional	—	String (2)
order_origin_zip	The order_origin_zip field at the offer level overrides the corresponding request-level field. This field is not used unless the order_origin_city , order_origin_state , and order_origin_country fields are present. For more information on order origin, see "Terminology," page 8 .	Optional	—	String (10)

Table 5 Offer-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canada	Req/Opt for VAT	Data Type & Length
product_code	<p>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>.</p> <p>To use the tax calculation service, use values listed in the <i>Tax Product Code Guide</i>. For information about this document, contact CyberSource Customer Support. See "Product Codes," page 12, for more information.</p> <p>For <code>ics_auth</code>, when you set this to a value other than <code>default</code> or any of the other values related to shipping and handling, the <code>quantity</code>, <code>product_name</code>, and <code>merchant_product_sku</code> fields are required. See the information about offers and grand totals in Getting Started with CyberSource Advanced for the SCMP API.</p>	Optional	Optional	String (20)
product_name	<p>Name of the product.</p> <p>For <code>ics_auth</code> and <code>ics_bill</code>, required if <code>product_code</code> is not <code>default</code> or one of the values related to shipping and handling.</p>	Optional	Optional	String (30)
quantity	<p>Quantity of the product being purchased.</p> <p>For <code>ics_auth</code> and <code>ics_bill</code>, required if <code>product_code</code> is not <code>default</code> or one of the values related to shipping and handling.</p>	Optional	Optional	Non-negative integer (10)
seller_registration	VAT seller registration number. See " International Taxes and Value-Added Tax (VAT) ," page 11 .	—	Required for VAT	String (25)
ship_from_city	City from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing.	Optional	—	String (50)
ship_from_country	Country from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. Use the two-character ISO Standard Country Codes .	Optional	Optional	String (2)

Table 5 Offer-Level Fields (Continued)

Field	Description	Req/Opt for U.S. & Canada	Req/Opt for VAT	Data Type & Length
ship_from_state	State from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. Use the State, Province, and Territory Codes for the United States and Canada .	Optional	—	String (2)
ship_from_zip	Postal code from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. 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 2C4	Optional	—	String (10)
tax_amount	Total tax to apply to the product. This amount cannot be negative. If you include this field, ics_tax does not calculate tax for the offer; instead, it returns the value of tax_amount in the reply field tax_tax_amountN .	Optional	Optional	Decimal (15)

Reply Fields

All the reply fields in the following table are returned for U.S. and Canadian orders. The third column in the table indicates whether the field is returned for VAT orders.

Table 6 Reply Fields

Reply Field	Description	Returned for VAT orders?	Data Type & Length
client_lib_version	Information about the client library used to request the transaction.	Yes	String (50)
currency	Currency used for the order. Formatted using the standard ISO Standard Currency Codes .	Yes	String (5)

Table 6 Reply Fields (Continued)

Reply Field	Description	Returned for VAT orders?	Data Type & Length
ics_rcode	One-digit code that indicates whether the entire request was successful. The field will contain one of the following values: -1: An error occurred 0: The request was declined 1: The request was successful	Yes	Integer (1)
ics_rflag	One-word description of the result of the entire request.	Yes	String (50)
ics_rmsg	Message that explains the reply flag ics_rflag . Do not display this message to your customer, and do not use this field to write an error handler.	Yes	String (255)
merchant_ref_number	Order reference or tracking number that you provided in the request. If you included multi-byte characters in this field in the request, the returned value might contain corrupted characters.	Yes	String (50)
request_id	Identifier for the request generated by the client.	Yes	String (26)
tax_city_tax0...N	City tax for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	Decimal (15)
tax_country_tax0...N	Country tax amount for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	Yes	String (15)
tax_county_tax0...N	County tax for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	Decimal (15)
tax_exempt_amount0...N	Exempt amount for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_code	Jurisdiction code assigned by the tax provider. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_country	Tax jurisdiction country for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_name	Free-text description of the jurisdiction for the item. For example, San Mateo County. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_rate	Jurisdiction tax rate for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_region	Free-text description of the jurisdiction region for the item. For example, CA (California State) or GB (Great Britain). Returned only if the show_tax_per_offer field is set to <i>yes</i> .	Yes	String (15)
tax_offer#_jurisdiction#_tax_amount	Jurisdiction tax amount for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)

Table 6 Reply Fields (Continued)

Reply Field	Description	Returned for VAT orders?	Data Type & Length
tax_offer#_jurisdiction#_tax_name	Name of the jurisdiction tax for the item. For example, CA State Tax. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_offer#_jurisdiction#_taxable	Jurisdiction taxable amount for the item, not including product level exemptions. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	Yes	String (15)
tax_offer#_jurisdiction#_type	Type of jurisdiction for the item. For example, city, county, state, country, or special. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	String (15)
tax_rcode	One-digit code that indicates whether the ics_tax request was successful. The field will contain one of the following values: -1: An error occurred 0: The request was declined 1: The request was successful	Yes	Integer (1)
tax_rflag	One-word description of the result of the ics_tax request.	Yes	String (50)
tax_rmsg	Message that explains the reply flag tax_rflag . Do not display this message to your customer, and do not use this field to write an error handler.	Yes	String (255)
tax_special_tax0...N	Special tax amount for the item when the tax_offer#_jurisdiction#_type field is set to <i>special</i> .	No	String (15)
tax_state_tax0...N	State tax for the item. Returned only if the show_tax_per_offer field is set to <i>yes</i> .	No	Decimal (15)
tax_tax_amount0...N	Total tax for the item.	Yes	Decimal (15)
tax_taxable_amount0...N	Taxable amount for the item.	No	String (15)
tax_total_city_tax	Total amount of city tax. This value is the sum of the values for all the tax_city_tax0...N fields.	No	Decimal (15)
tax_total_country_tax	Total amount of country tax or Canada GST. This value is the sum of the values for all the tax_country_tax0...N fields.	No	String (15)
tax_total_county_tax	Total amount of county tax. This value is the sum of the values for all the tax_county_tax0...N fields.	No	Decimal (15)
tax_total_exempt_amount	Total amount of exempt amounts. This value is the sum of the values for all the tax_exempt_amount0...N fields.	No	String (15)
tax_total_grand	Sum of the offer amounts and tax amounts.	Yes	Decimal (17)

Table 6 Reply Fields (Continued)

Reply Field	Description	Returned for VAT orders?	Data Type & Length
tax_total_special_tax	Total amount of special tax. This value is the sum of the values for all tax_special_tax0...N fields.	No	String (15)
tax_total_state_tax	Total amount of state tax or Canadian PST, HST, or QST. This value is the sum of the values for all the tax_state_tax0...N fields.	No	Decimal (15)
tax_total_tax	Total tax for all offers.	Yes	Decimal (15)
tax_total_taxable_amount	Total amount of all taxable amounts. This value is the sum of the values for all the tax_taxable_amount0...N fields.	No	String (15)

Reply Flags

The following table lists the tax calculation service reply flags returned by the SCMP API. See [Getting Started with CyberSource Advanced for the SCMP API](#) for a discussion of reply codes, reply flags, and reply messages.



Important

Because CyberSource can add reply fields, reply codes, and reply flags at any time:

- You need to parse the reply data according to the names of the fields instead of the field order in the reply. For more information about parsing reply fields, see the documentation for your client.
- Your error handler should be able to process new reply codes and reply flags without problems.

Your error handler should use the **ics_rcode** field to determine the result if it receives a reply flag that it does not recognize.

Table 7 Reply Flags

Reply Flags	Brief Description
DINVALIDADDRESS	Customer entered an invalid city, state, country, or postal code.
DINVALIDDATA	Data provided is not consistent with the request.
DMISSINGFIELD	The request is missing a required field.
ESYSTEM	System error. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
ETIMEOUT	The request timed out.
SOK	Transaction was successful.

Supported Countries

Table 8 Supported Countries

Afghanistan	Lebanon
Albania	Lesotho
Algeria	Liberia
Andorra	Libyan Arab Jamahiriya
Angola	Liechtenstein
Anguilla	Lithuania
Antigua and Barbuda	Livigno
Argentina	Luxembourg
Armenia	Macao
Aruba	Macedonia, the Former Yugoslav Republic of
Australia	Madagascar
Austria	Malawi
Azerbaijan	Malaysia
Bahamas	Maldives
Bahrain	Mali
Bangladesh	Malta
Barbados	Marshall Islands
Belarus	Mauritania
Belgium	Mauritius
Belize	Mayotte
Benin	Mexico
Bermuda	Micronesia
Bhutan	Moldova
Bolivia	Monaco
Bosnia and Herzegovina	Mongolia
Botswana	Montenegro
British Indian Ocean Territory	Montserrat
Brunei Darussalam	Morocco

Table 8 Supported Countries (Continued)

Bulgaria	Mozambique
Burkina Faso	Myanmar
Burundi	Namibia
Cambodia	Nauru
Cameroon	Nepal
Campione D'Italia	Netherlands
Canada	New Caledonia
Canary Islands	New Zealand
Cape Verde	Nicaragua
Caribbean Netherlands (Bonaire)	Niger
Caribbean Netherlands (Sint Eustatius and Saba)	Nigeria
Cayman Islands	Niue
Central African Republic	Norway
Chad	Oman
Chile	Pakistan
China	Palau
Note Regional tax is not supported in China; tax determinations default to the federal tax rate.	
Christmas Island	Palestine Occupied Territory
Cocos (Keeling) Islands	Panama
Colombia	Papua New Guinea
Comoros	Paraguay
Congo, Republic of the	Peru
Congo, The Democratic Republic of the	Philippines
Coral Sea Islands	Pitcairn Islands
Costa Rica	Poland
Cote D'Ivoire	Portugal
Croatia	Puerto Rico
Curacao	Qatar
Cyprus	Republic of Korea (South Korea)
Czech Republic	Romania
Denmark	Russian Federation
Djibouti	Rwanda
Dominica	Saint Helena
Dominican Republic	Saint Kitts and Nevis

Table 8 Supported Countries (Continued)

Ecuador	Saint Lucia
El Salvador	Saint Martin
Equatorial Guinea	Saint Pierre and Miquelon
Eritrea	Saint Vincent and the Grenadines
Estonia	Samoa
Ethiopia	San Marino
Falkland Islands (Malvinas)	Sao Tome and Principe
Faroe Islands	Saudi Arabia
Fiji	Senegal
Finland (includes Aland Island)	Serbia
France	Seychelles
French Guiana	Sierra Leone
French Polynesia	Singapore
French Southern Territories	Sint Maarten
Gabon	Slovakia
Gambia	Slovenia
Georgia	Somalia
Germany	South Africa
Ghana	South Georgia and the South Sandwich Islands
Gibraltar	Spain
Greece	Sri Lanka
Greenland	Suriname
Grenada	Svalbard and Jan Mayen
Guadeloupe	Swaziland
Guam	Sweden
Guatemala	Switzerland
Guernsey	Taiwan
Guinea	Tajikistan
Guinea-Bissau	Tanzania
Guyana	Thailand
Haiti	Timor-Leste
Heligoland	Togo
Holy See	Tokelau
Honduras	Tonga
Hong Kong	Trinidad and Tobago

Table 8 Supported Countries (Continued)

Hungary	Tunisia
Iceland	Turkey
Indonesia	Turkmenistan
Iraq	Turks and Caicos Islands
Ireland	Tuvalu
Israel	Uganda
Italy	Ukraine
Jamaica	United Arab Emirates
Japan	United Kingdom
Jersey	Uruguay
Jordan	Uzbekistan
Kazakhstan	Vanuatu
Kenya	Venezuela
Kiribati	Vietnam
Kosovo	Virgin Islands, British
Kuwait	Wallis and Futuna
Kyrgyzstan	Yemen
Lake Lugano, Territorial Waters of	Zambia
Lao People's Democratic Republic	Zimbabwe
Latvia	

City Abbreviations

Several CyberSource applications expand some commonly used city-name abbreviations, which enables the tax calculation service to correctly evaluate city names for tax purposes. The U.S. Postal Service also maintains a list of common abbreviations. If a customer uses abbreviations not accepted by either entity, the tax calculation service might not recognize the combination of city, state, and postal code, in which case the request fails and returns a reply flag of DINVALIDADDRESS.

The following table provides a list of the abbreviations used by the tax calculation service and the U.S. Postal Service.

Table 9 City Abbreviations Expansion

Abbreviation	Expansion	Abbreviation	Expansion
bch	beach	n	north
crk	creek	ny	new york
cty	city	pk	park
cyn	canyon	pkwy	parkway
e	east	pt	point
ft	fort	s	south
grdn	garden	sf	san francisco
hbr	harbor	st (only for the US country code)	saint
hgts, hts	heights	spr	spring
jct, jctn	junction	sprs	springs
la	los angeles	vly	valley
mt, mtn	mountain	w	west

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