

Tax Calculation Service

Using the Simple Order API

February 2019



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Recent Revisions to This Document

Release	Changes
February 2019	<p>Revised content for the term "Tax nexus." See "Terminology," page 8.</p> <p>Updated content about Tax Nexus. See "Tax Nexus," page 12.</p> <p>Updated content about when to perform tax calculation. See "When to Calculate Taxes," page 13.</p> <p>Restored content and fields that were deleted for the July 2018 update regarding a new tax report. This new tax report is now available. See "Reports," page 15, "Request Fields," page 30, and "Reply Fields," page 43, for details.</p>
August 2018	Restored the <code>invoiceHeader_invoiceDate</code> field. See "Request Fields," page 30 , 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	<p>Removed support for Egypt, India, and Solomon Islands. Added a disclaimer for China support. See "Supported Countries," page 49.</p> <p>Updated this Recent Revisions table to clarify the April 2018 update to the Canadian Taxes section.</p>
April 2018	Updated content about Canadian Taxes to clarify the calculation and use of HST. See "Canadian Taxes," page 10 .
March 2018	<p>Added "Reports," page 15.</p> <p>Added five request fields. See "Request Fields," page 30, for details.</p> <ul style="list-style-type: none"> ■ <code>invoiceHeader_invoiceDate</code> ■ <code>taxService_commitIndicator</code> ■ <code>taxService_dateOverrideReason</code> ■ <code>taxService_refundIndicator</code> ■ <code>taxService_reportingDate</code> <p>Added two reply fields. See "Reply Fields," page 43, for details.</p> <ul style="list-style-type: none"> ■ <code>taxReply_commitIndicator</code> ■ <code>taxReply_refundIndicator</code>

About This Guide

Audience and Purpose

This guide is written for application developers who want to use the CyberSource Simple Order 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



Note

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



Important

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

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 ccAuthService_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 ccAuthService_run field to <code>true</code>.

Related Documents

- *Getting Started with CyberSource Advanced for the Simple Order API* describes how to get started using the Simple Order API. ([PDF](#) | [HTML](#))
- *Credit Card Services Using the Simple Order API* explains how to use the CyberSource Simple Order APIs to access CyberSource credit card services. ([PDF](#) | [HTML](#))
- *Electronic Check Services Using the Simple Order 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 connection between 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 49](#).



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 49](#).

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 49.

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

If your company has *nexus* in the U.S. or Canada, it might be required to collect sales tax or seller's use tax there. You can establish nexus in a state or province in various ways.

For example:

- Your company has a physical presence there such as office space, warehouse space, paid staff, or inventory.
- Your company sells a sufficiently large volume of goods there to have *economic* nexus.

Each state or province has its own rules for determining nexus. Consult your tax advisor to determine where you have nexus.



Important

Products are taxable only if your customer's state or province matches a state or province 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.

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 **item_#_taxAmount** 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 Calculate Taxes

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 ships—this ensures that the current tax rate is applied to the order.



As you determine how and where to implement the Tax Calculation Service on your web site, consider that the global tax calculation is billable per each request. To offset your costs and optimize your pricing, consider waiting to request a tax calculation after your customer is on the checkout page. This minimizes the number of tax calculation requests for a single transaction. To ensure that your business complies with tax laws, work with a tax advisor to determine when to calculate tax.

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](#).



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 17 and "[Calculating International Tax/VAT](#)," page 18.

Reports

Use the Business Center to create, view, and download reports, including the Tax Calculation Report. See the [Business Center Reporting Developer Guide](#).

For details about adding tax transactions to your tax reporting, see "[Tax Reporting](#)," [page 19](#).

Requesting Services

Requesting the Tax Calculation Service

To request the tax calculation service, set the **taxService_run** field to `true`. See [Appendix A, "API Fields," on page 28](#) 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 (**ccAuthReversalService**)
- Risk update (**riskUpdateService**)

To submit the total tax instead of having the tax calculation service calculate the tax for the item, use the **item_#_taxAmount** field. The value in this field is returned in the **taxReply_item_#_totalTaxAmount** 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 **shipTo_state** value matches a state or province in which your company has nexus.

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

- If you do not specify your nexus locations, or if a value of the **taxService_nexus** field matches the value of **shipTo_state**, the service calculates the applicable tax for the product.
- If the **shipTo_state** value does not match any state or province where you have nexus, the service 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 **shipTo_**
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 **shipTo_city** value improves the accuracy of the calculated tax.
- Ship-from address, in fields beginning with **shipFrom_**
This is the location from which you ship the customer's order.
- Point-of-order acceptance, in fields beginning with **taxService_orderAcceptance...**
For the description of point-of-order acceptance, see "[Terminology](#)," [page 8](#).
- Point-of-order origin, in fields beginning with **taxService_orderOrigin...**
For the description of point-of-order origin, see "[Terminology](#)," [page 8](#).
- Product code, in the **item_#_productCode** field
- Nexus, in the **taxService_nexus** field—or if it is easier, you can use the **taxService_noNexus** field to provide a list of states in which you do not have nexus.

When the tax calculation service succeeds, the reply includes the following fields for each item:

- `taxReply_item_#_cityTaxAmount`
- `taxReply_item_#_countryTaxAmount`
- `taxReply_item_#_countyTaxAmount`
- `taxReply_item_#_specialTaxAmount`
- `taxReply_item_#_stateTaxAmount`
- `taxReply_item_#_totalTaxAmount`
- `taxReply_item_#_jurisdiction_#....` fields that provide detailed tax information. See "Examples," page 21, and "Reply Fields," page 43.



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 49](#).

If you send a value in the `taxService_sellerRegistration` or `item_#_sellerRegistration` 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 Fields," page 30](#).

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 `item_#_productCode` 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 `taxReply_item_#_totalTaxAmount` 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*.

Tax Reporting

Use the Business Center to create, view, and download reports, including the Tax Calculation Report. For more information about tax report specifications, see the [Business Center Reporting Developer Guide](#).

Committed Tax Calls

To include **Committed** calls in your reports, send **taxService_commitIndicatoretax_commit_indicator** set to `true`. Line item-level detail for these tax calls is stored and included in tax reporting.

Refunded Tax Calls

To include **Refunded** calls in your reports, send **taxService_commitIndicatoretax_commit_indicator** and **taxService_refundIndicatoretax_refund_indicator** both set to `true`. If you send a tax call with **taxService_refundIndicatoretax_refund_indicator** but without **taxService_commitIndicatoretax_commit_indicator**, the transaction is neither saved nor included in reports. To calculate the tax amount applied to a previously captured transaction, you can send the date of the original transaction in the **invoiceHeader_invoiceDateinvoice_date** field.

Tax amounts are returned as positive amounts in the API response, but they are saved in reports as negative amounts. Consequently, reported aggregate amounts are calculated accurately.

Voided Tax Calls

To include **Voided** calls in your reports for same-day committed calls, send a Void call with the **requestIDrequest_id** for the corresponding committed tax transaction. Voided tax transactions are omitted from tax reports.

CyberSource recommends that you consider reporting period implications when voiding tax calls. If you attempt to void a tax call from a previous reporting period, that transaction is removed from the current report; however, doing so might impact the way taxes are reconciled and filed with the authorities.

Testing

You can use the CyberSource test server at any time to send test tax calculation service transactions. See the documentation for the CyberSource client that you are using for information about how to specify which server to use. During integration, you may also return production data in the test environment. To enable that functionality, contact CyberSource Customer Support.

Examples

Example 1 Name-Value Pairs Request

```
taxService_run=true
billTo_street1=123 Main Street
billTo_city=Small Town
billTo_country=US
billTo_state=CA
billTo_postalCode=98765
purchaseTotals_currency=USD
merchantID=infodev
merchantReferenceCode=482046C3A7E94F5
item_0_unitPrice=1200
item_0_quantity=1
item_0_productCode=50161815
item_0_productName=Chewing Gums
item_0_productSKU=07-12-00657
item_1_unitPrice=1240
item_1_quantity=1
item_1_productCode=50181905
item_1_productName=Sweet Biscuits or Cookies
item_1_productSKU=07-12-00659
```

Example 2 Name-Value Pairs Reply

```

merchantReferenceCode=482046C3A7E94F5
requestID=4817605701820004775333
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=USD
taxReply_totalCountryTaxAmount=0.00
taxReply_reasonCode=100
taxReply_totalSpecialTaxAmount=73.20
taxReply_totalTaxableAmount=2440.00
taxReply_totalStateTaxAmount=152.50
taxReply_totalExemptAmount=0.00
taxReply_grandTotalAmount=2671.80
taxReply_totalCityTaxAmount=0.00
taxReply_totalTaxAmount=231.80
taxReply_item_0_taxableAmount=1200.00
taxReply_item_0_exemptAmount=0.00
taxReply_item_0_specialTaxAmount=36.00
taxReply_item_0_cityTaxAmount=0.00
taxReply_item_0_countyTaxAmount=3.00
taxReply_item_0_stateTaxAmount=75.00
taxReply_item_0_countryTaxAmount=0.00
taxReply_item_0_totalTaxAmount=114.00
taxReply_item_0_jurisdiction_0_country=US
taxReply_item_0_jurisdiction_0_region=CA
taxReply_item_0_jurisdiction_0_type=State
taxReply_item_0_jurisdiction_0_code=06
taxReply_item_0_jurisdiction_0_taxable=1200.00
taxReply_item_0_jurisdiction_0_rate=0.062500
taxReply_item_0_jurisdiction_0_taxAmount=75.00
taxReply_item_0_jurisdiction_0_name=CALIFORNIA
taxReply_item_0_jurisdiction_0_taxName=CA STATE TAX
taxReply_item_0_jurisdiction_1_country=US
taxReply_item_0_jurisdiction_1_region=CA
taxReply_item_0_jurisdiction_1_type=County
taxReply_item_0_jurisdiction_1_code=001
taxReply_item_0_jurisdiction_1_taxable=1200.00
taxReply_item_0_jurisdiction_1_rate=0.002500
taxReply_item_0_jurisdiction_1_taxAmount=3.00
taxReply_item_0_jurisdiction_1_name=ALAMEDA
taxReply_item_0_jurisdiction_1_taxName=CA COUNTY TAX
taxReply_item_0_jurisdiction_2_country=US
taxReply_item_0_jurisdiction_2_region=CA
taxReply_item_0_jurisdiction_2_type=Special
taxReply_item_0_jurisdiction_2_code=EMAK0
taxReply_item_0_jurisdiction_2_taxable=1200.00
taxReply_item_0_jurisdiction_2_rate=0.020000
taxReply_item_0_jurisdiction_2_taxAmount=24.00
taxReply_item_0_jurisdiction_2_name=ALAMEDA COUNTY DISTRICT TAX SP
taxReply_item_0_jurisdiction_2_taxName=CA SPECIAL TAX
taxReply_item_0_jurisdiction_3_country=US
taxReply_item_0_jurisdiction_3_region=CA

```

```

taxReply_item_0_jurisdiction_3_type=Special
taxReply_item_0_jurisdiction_3_code=EMSJ0
taxReply_item_0_jurisdiction_3_taxable=1200.00
taxReply_item_0_jurisdiction_3_rate=0.010000
taxReply_item_0_jurisdiction_3_taxAmount=12.00
taxReply_item_0_jurisdiction_3_name=ALAMEDA CO LOCAL TAX SL
taxReply_item_0_jurisdiction_3_taxName=CA SPECIAL TAX
taxReply_item_1_taxableAmount=1240.00
taxReply_item_1_exemptAmount=0.00
taxReply_item_1_specialTaxAmount=37.20
taxReply_item_1_cityTaxAmount=0.00
taxReply_item_1_countyTaxAmount=3.10
taxReply_item_1_stateTaxAmount=77.50
taxReply_item_1_countryTaxAmount=0.00
taxReply_item_1_totalTaxAmount=117.80
taxReply_item_1_jurisdiction_0_country=US
taxReply_item_1_jurisdiction_0_region=CA
taxReply_item_1_jurisdiction_0_type=State
taxReply_item_1_jurisdiction_0_code=06
taxReply_item_1_jurisdiction_0_taxable=1240.00
taxReply_item_1_jurisdiction_0_rate=0.062500
taxReply_item_1_jurisdiction_0_taxAmount=77.50
taxReply_item_1_jurisdiction_0_name=CALIFORNIA
taxReply_item_1_jurisdiction_0_taxName=CA STATE TAX
taxReply_item_1_jurisdiction_1_country=US
taxReply_item_1_jurisdiction_1_region=CA
taxReply_item_1_jurisdiction_1_type=County
taxReply_item_1_jurisdiction_1_code=001
taxReply_item_1_jurisdiction_1_taxable=1240.00
taxReply_item_1_jurisdiction_1_rate=0.002500
taxReply_item_1_jurisdiction_1_taxAmount=3.10
taxReply_item_1_jurisdiction_1_name=ALAMEDA
taxReply_item_1_jurisdiction_1_taxName=CA COUNTY TAX
taxReply_item_1_jurisdiction_2_country=US
taxReply_item_1_jurisdiction_2_region=CA
taxReply_item_1_jurisdiction_2_type=Special
taxReply_item_1_jurisdiction_2_code=EMAK0
taxReply_item_1_jurisdiction_2_taxable=1240.00
taxReply_item_1_jurisdiction_2_rate=0.020000
taxReply_item_1_jurisdiction_2_taxAmount=24.80
taxReply_item_1_jurisdiction_2_name=ALAMEDA COUNTY DISTRICT TAX SP
taxReply_item_1_jurisdiction_2_taxName=CA SPECIAL TAX
taxReply_item_1_jurisdiction_3_country=US
taxReply_item_1_jurisdiction_3_region=CA
taxReply_item_1_jurisdiction_3_type=Special
taxReply_item_1_jurisdiction_3_code=EMSJ0
taxReply_item_1_jurisdiction_3_taxable=1240.00
taxReply_item_1_jurisdiction_3_rate=0.010000
taxReply_item_1_jurisdiction_3_taxAmount=12.40
taxReply_item_1_jurisdiction_3_name=ALAMEDA CO LOCAL TAX SL
taxReply_item_1_jurisdiction_3_taxName=CA SPECIAL TAX

```

Example 3 XML Request

```

<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-
1.139">
  <merchantID>infodev</merchantID>
  <merchantReferenceCode>482046C3A7E94F5</merchantReferenceCode>
  <billTo>
    <firstName>Jane</firstName>
    <lastName>Smith</lastName>
    <street1>123 Main Street</street1>
    <city>Small Town</city>
    <state>CA</state>
    <postalCode>98765</postalCode>
    <country>us</country>
    <phoneNumber>987-654-3210</phoneNumber>
    <email>jsmith@example.com</email>
  </billTo>
  <item id="0">
    <unitPrice>1200</unitPrice>
    <quantity>1</quantity>
    <productCode>50161815</productCode>
    <productName>Chewing Gums</productName>
    <productSKU>07-12-00657</productSKU>
  </item>
  <item id="1">
    <unitPrice>1240</unitPrice>
    <quantity>1</quantity>
    <productCode>50181905</productCode>
    <productName>Sweet Biscuits or Cookies</productName>
    <productSKU>07-12-00659</productSKU>
  </item>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <card>
    <accountNumber>4111111111111111</accountNumber>
    <expirationMonth>08</expirationMonth>
    <expirationYear>2023</expirationYear>
    <cvNumber>123</cvNumber>
  </card>
  <taxService run="true">
  </taxService>
</requestMessage>

```


Example 4 XML Reply

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.139">
  <c:merchantReferenceCode>482046C3A7E94F5</c:merchantReferenceCode>
  <c:requestID>4817604273600004775333</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:purchaseTotals>
    <c:currency>USD</c:currency>
  </c:purchaseTotals>
  <c:taxReply>
    <c:reasonCode>100</c:reasonCode>
    <c:grandTotalAmount>2671.80</c:grandTotalAmount>
    <c:totalTaxableAmount>2440.00</c:totalTaxableAmount>
    <c:totalExemptAmount>0.00</c:totalExemptAmount>
    <c:totalSpecialTaxAmount>73.20</c:totalSpecialTaxAmount>
    <c:totalCityTaxAmount>0.00</c:totalCityTaxAmount>
    <c:totalCountyTaxAmount>6.10</c:totalCountyTaxAmount>
    <c:totalStateTaxAmount>152.50</c:totalStateTaxAmount>
    <c:totalCountryTaxAmount>0.00</c:totalCountryTaxAmount>
    <c:totalTaxAmount>231.80</c:totalTaxAmount>
    <c:item id="0">
      <c:taxableAmount>1200.00</c:taxableAmount>
      <c:exemptAmount>0.00</c:exemptAmount>
      <c:specialTaxAmount>36.00</c:specialTaxAmount>
      <c:cityTaxAmount>0.00</c:cityTaxAmount>
      <c:countyTaxAmount>3.00</c:countyTaxAmount>
      <c:stateTaxAmount>75.00</c:stateTaxAmount>
      <c:countryTaxAmount>0.00</c:countryTaxAmount>
      <c:totalTaxAmount>114.00</c:totalTaxAmount>
      <c:jurisdiction jurisId="0">
        <c:country>US</c:country>
        <c:region>CA</c:region>
        <c:type>State</c:type>
        <c:code>06</c:code>
        <c:taxable>1200.00</c:taxable>
        <c:rate>0.062500</c:rate>
        <c:taxAmount>75.00</c:taxAmount>
        <c:name>CALIFORNIA</c:name>
        <c:taxName>CA STATE TAX</c:taxName>
      </c:jurisdiction>
      <c:jurisdiction jurisId="1">
        <c:country>US</c:country>
        <c:region>CA</c:region>
        <c:type>County</c:type>
        <c:code>001</c:code>
        <c:taxable>1200.00</c:taxable>
        <c:rate>0.002500</c:rate>
        <c:taxAmount>3.00</c:taxAmount>
        <c:name>ALAMEDA</c:name>
        <c:taxName>CA COUNTY TAX</c:taxName>
      </c:jurisdiction>
    </c:item id="0">
  </c:taxReply>
</c:replyMessage>

```

```

<c:jurisdiction jurisId="2">
  <c:country>US</c:country>
  <c:region>CA</c:region>
  <c:type>Special</c:type>
  <c:code>EMAK0</c:code>
  <c:taxable>1200.00</c:taxable>
  <c:rate>0.020000</c:rate>
  <c:taxAmount>24.00</c:taxAmount>
  <c:name>ALAMEDA COUNTY DISTRICT TAX SP</c:name>
  <c:taxName>CA SPECIAL TAX</c:taxName>
</c:jurisdiction>
<c:jurisdiction jurisId="3">
  <c:country>US</c:country>
  <c:region>CA</c:region>
  <c:type>Special</c:type>
  <c:code>EMSJ0</c:code>
  <c:taxable>1200.00</c:taxable>
  <c:rate>0.010000</c:rate>
  <c:taxAmount>12.00</c:taxAmount>
  <c:name>ALAMEDA CO LOCAL TAX SL</c:name>
  <c:taxName>CA SPECIAL TAX</c:taxName>
</c:jurisdiction>
</c:item>
<c:item id="1">
  <c:taxableAmount>1240.00</c:taxableAmount>
  <c:exemptAmount>0.00</c:exemptAmount>
  <c:specialTaxAmount>37.20</c:specialTaxAmount>
  <c:cityTaxAmount>0.00</c:cityTaxAmount>
  <c:countyTaxAmount>3.10</c:countyTaxAmount>
  <c:stateTaxAmount>77.50</c:stateTaxAmount>
  <c:countryTaxAmount>0.00</c:countryTaxAmount>
  <c:totalTaxAmount>117.80</c:totalTaxAmount>
  <c:jurisdiction jurisId="0">
    <c:country>US</c:country>
    <c:region>CA</c:region>
    <c:type>State</c:type>
    <c:code>06</c:code>
    <c:taxable>1240.00</c:taxable>
    <c:rate>0.062500</c:rate>
    <c:taxAmount>77.50</c:taxAmount>
    <c:name>CALIFORNIA</c:name>
    <c:taxName>CA STATE TAX</c:taxName>
  </c:jurisdiction>
  <c:jurisdiction jurisId="1">
    <c:country>US</c:country>
    <c:region>CA</c:region>
    <c:type>County</c:type>
    <c:code>001</c:code>
    <c:taxable>1240.00</c:taxable>
    <c:rate>0.002500</c:rate>
    <c:taxAmount>3.10</c:taxAmount>
    <c:name>ALAMEDA</c:name>
    <c:taxName>CA COUNTY TAX</c:taxName>
  </c:jurisdiction>

```

```

</c:jurisdiction>
<c:jurisdiction jurisId="2">
  <c:country>US</c:country>
  <c:region>CA</c:region>
  <c:type>Special</c:type>
  <c:code>EMAK0</c:code>
  <c:taxable>1240.00</c:taxable>
  <c:rate>0.020000</c:rate>
  <c:taxAmount>24.80</c:taxAmount>
  <c:name>ALAMEDA COUNTY DISTRICT TAX SP</c:name>
  <c:taxName>CA SPECIAL TAX</c:taxName>
</c:jurisdiction>
<c:jurisdiction jurisId="3">
  <c:country>US</c:country>
  <c:region>CA</c:region>
  <c:type>Special</c:type>
  <c:code>EMSJ0</c:code>
  <c:taxable>1240.00</c:taxable>
  <c:rate>0.010000</c:rate>
  <c:taxAmount>12.40</c:taxAmount>
  <c:name>ALAMEDA CO LOCAL TAX SL</c:name>
  <c:taxName>CA SPECIAL TAX</c:taxName>
</c:jurisdiction>
</c:item>
</c:taxReply>
</c:replyMessage>

```

API Fields

Formatting Requirements

Unless otherwise noted, all field names are case sensitive and all fields accept special characters such as @, #, and %.



Note

The values of the **item_#_** fields must not contain carets (^) or colons (:) because these characters are reserved for use by the CyberSource services.

Values for request-level and item-level fields must not contain new lines or carriage returns. However, they can contain embedded spaces and any other printable characters. CyberSource removes all leading and trailing spaces.

Atos

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

Moneris

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

Data Type Definitions

For more information about these data types, see the [World Wide Web Consortium \(W3C\) XML Schema Part 2: Datatypes Second Edition](#).

Table 3 Data Type Definitions

Data Type	Description
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Numbered Elements

The CyberSource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, 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 5 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>



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



CyberSource changed the jurisdiction reply field in the XML schema for version 1.139. If you migrate to version 1.139 or later and are using the `id` attribute for the jurisdiction element in the reply, you must update your system to process the new name of the `id` attribute for the jurisdiction element in the reply, which changed to **jurisId**. See [Example 4, "XML Reply," on page 25](#).

Request Fields

Table 4 Request Fields

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
billTo_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)
billTo_country	Credit card billing country. Use the two-character <i>ISO Standard Country Codes</i> . When shipTo_country is not provided, billTo_country is used in its place. When billTo_country is set to US or CA, billTo_postalCode and billTo_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)

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.
4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
billTo_postalCode	<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)
billTo_state	<p>Credit card billing state or province. Use the State, Province, and Territory Codes for the United States and Canada.</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 (2)
billTo_street1	<p>First line of the billing street address. In the U.S., this information can be helpful in determining the ZIP+4 digits.⁴</p>	Optional	—	String (60)
billTo_street2	<p>Second line of the billing street address.</p>	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.
4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
invoiceHeader_ invoiceDate	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)
item_#_buyerRegistration	Buyer's VAT registration number. See "International Taxes and Value-Added Tax (VAT)," page 11 . See "Numbered Elements," page 29 .	—	Optional	String (25)
item_#_ orderAcceptanceCity	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderAcceptanceState and item_#_orderAcceptanceCountry fields are present. For more information on order acceptance, see "Terminology," page 8 . See "Numbered Elements," page 29 .	Optional	—	String (50)
item_#_ orderAcceptanceCountry	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderAcceptanceState and item_#_orderAcceptanceCity fields are present. Use the two-character ISO Standard Country Codes . For more information on order acceptance, see "Terminology," page 8 . See "Numbered Elements," page 29 .	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.
- 4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
item_#_ orderAcceptancePostal Code	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderAcceptanceCity , item_#_orderAcceptanceState , and item_#_orderAcceptanceCountry fields are present. For more information on order acceptance, see "Terminology," page 8 . See "Numbered Elements," page 29 .	Optional	—	String (10)
item_#_ orderAcceptanceState	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderAcceptanceCity and item_#_orderAcceptanceCountry 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 . See "Numbered Elements," page 29 .	Optional	—	String (2)
item_#_orderOriginCity	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderOriginState and item_#_orderOriginCountry fields are present. For more information on order origin, see "Terminology," page 8 . See "Numbered Elements," page 29 .	Optional	—	String (50)
item_#_orderOriginCountry	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderOriginState and item_#_orderOriginCity fields are present. Use the two-character ISO Standard Country Codes . For more information on order origin, see "Terminology," page 8 . See "Numbered Elements," page 29 .	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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
item_#_orderOriginPostalCode	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderOriginCity , item_#_orderOriginState , and item_#_orderOriginCountry fields are present. For more information on order origin, see "Terminology," page 8 . See "Numbered Elements," page 29 .	Optional	—	String (10)
item_#_orderOriginState	This item-level field overrides the corresponding request-level field. This field is not used unless the item_#_orderOriginCity and item_#_orderOriginCountry fields are present. For more information on order origin, see "Terminology," page 8 . See "Numbered Elements," page 29 .	Optional	—	String (2)
item_#_productCode	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> . 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. For ccAuthService , when you set this to a value other than <code>default</code> or any of the values related to shipping and handling, the item_#_quantity , item_#_productName , and item_#_productSKU fields are required. See "Numbered Elements," page 29 .	Optional	Optional	String (20)

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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
item_#_productName	Name of the product. Some services use this value for communication with the customer, so the name should clearly represent the product. For ccAuthService and ccCaptureService , required if item_#_productCode is not <code>default</code> or one of the values related to shipping and handling. See "Numbered Elements," page 29.	Optional	Optional	String (30)
item_#_productSKU	Product's identifier code. For ccAuthService and ccCaptureService , required if item_#_productCode is not <code>default</code> or one of the values related to shipping and handling. See "Numbered Elements," page 29.	Optional	—	String (30)
item_#_quantity	Quantity of the product being purchased. The default value is 1. For ccAuthService and ccCaptureService , required if item_#_productCode is not <code>default</code> or one of the values related to shipping and handling. See "Numbered Elements," page 29.	Optional	Optional	Integer (10)
item_#_sellerRegistration	VAT seller registration number. Only applicable if including one VAT seller registration numbers in the request. See "International Taxes and Value-Added Tax (VAT)," page 11. Note The VAT seller registration number may be required for some Canadian transactions.	N/A	Optional	String (25)
item_#_shipFromCity	City from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This item-level field overrides the corresponding request-level field. See "Numbered Elements," page 29.	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.
- 4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
item_#_shipFromCountry	Country from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This item-level field overrides the corresponding request-level field. Use the two-character <i>ISO Standard Country Codes</i> . See "Numbered Elements," page 29.	Optional	Optional	String (2)
item_#_shipFromPostalCode	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. This item-level field overrides the corresponding request-level field. See "Numbered Elements," page 29.	Optional	—	String (10)
item_#_shipFromState	State from which the product is shipped, which is used to determine tax rules and/or rates applied to the transaction based on sourcing. This item-level field overrides the corresponding request-level field. Use the <i>State, Province, and Territory Codes for the United States and Canada</i> . See "Numbered Elements," page 29.	Optional	—	String (2)
item_#_taxAmount	Total tax to apply to the product. This value cannot be negative. If you include this field, the tax calculation service does not calculate tax for the item; instead, it returns the value of item_#_taxAmount in the reply field taxReply_item_#_totalTaxAmount . See "Numbered Elements," page 29.	Optional	Optional	String (15)
item_#_unitPrice	Per-item price of the product. This value cannot be negative. 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. See "Numbered Elements," page 29.	Required	Required	String (15)

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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
merchantID	Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required	Required	String (30)
merchantReferenceCode	Merchant-generated order reference or tracking number. See Getting Started with CyberSource Advanced for the Simple Order API for more information.	Required	Required	String (50)
purchaseTotals_currency	Currency used for the order. Use the standard ISO Standard Currency Codes . The default value is USD.	Optional	Required	String (5)
shipFrom_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 shipFrom_state and shipFrom_country are present.	Optional	—	String (50)
shipFrom_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 shipFrom_city and shipFrom_state are present. Use the two-character ISO Standard Country Codes .	Optional	Optional	String (2)
shipFrom_postalCode	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 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)

- For U.S. and Canada only.
- The field has no length limit due to the varying number of states and provinces that can be included in the list.
- 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.
- This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
shipFrom_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 shipFrom_city and shipFrom_country are present. Use the State, Province, and Territory Codes for the United States and Canada .	Optional	—	String (2)
shipTo_city	City of the shipping address. This field is used only when the shipTo_state and shipTo_country fields are present. Also see " Multiple Shipping Destinations in a Single Order ," page 13.	Optional	—	String (50)
shipTo_country	Country of the shipping address. Use the two-character ISO Standard Country Codes . This field is used only when the shipTo_city and shipTo_state fields are present. Also see " Multiple Shipping Destinations in a Single Order ," page 13.	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.
- 4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
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>When 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>See "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	—	String (10)
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>The default value for shipTo_state is billTo_state. This field is used only when the shipTo_city and shipTo_country fields are present. Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	Optional	—	String (2)
shipTo_street1	<p>First line of the shipping address.</p> <p>Required if any shipping information is included. Also see "Multiple Shipping Destinations in a Single Order," page 13.</p>	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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
shipTo_street2	Second line of the shipping address. Also see "Multiple Shipping Destinations in a Single Order," page 13.	Optional	—	String (60)
shipTo_street3	Third line of the shipping address. Also see "Multiple Shipping Destinations in a Single Order," page 13.	Optional	—	String (60)
taxService_buyerRegistration	Buyer's VAT registration number. See "International Taxes and Value-Added Tax (VAT)," page 11.	—	Optional	String (25)
taxService_commitIndicator	Indicates the tax amount from this transaction is to be included in the final captured transaction. Tax transactions with commit indicator set to <code>true</code> will be included in tax reporting.	Optional	Optional	String (5)
taxService_dateOverrideReason	If a past or future date is specified in invoiceHeader_invoiceDate , provide the reason for that for audit purposes. Typical reasons include: <ul style="list-style-type: none"> ■ Return ■ Layaway ■ Imported 	Optional	Optional	String (255)
taxService_nexus	List of states or provinces in which merchandise is taxable. Do not use both the taxService_nexus and taxService_noNexus fields in your request. The default value for taxService_nexus is all states. Use a single space to separate each state in the list. Use the State, Province, and Territory Codes for the United States and Canada .	Either this field or taxService_noNexus is required if you do not have nexus in every state or province.	—	String ⁽²⁾ (no limit)

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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
taxService_noNexus	List of states or provinces in which merchandise is not taxable. Do not use both the taxService_nexus and taxService_noNexus fields in your request. Use a single space to separate each state in the list. Use the State, Province, and Territory Codes for the United States and Canada .	Either this field or taxService_nexus is required if you do not have nexus in every state or province.	—	String (no limit) ⁽²⁾
taxService_orderAcceptanceCity	Order acceptance city. This field is not used unless the taxService_orderAcceptanceState and taxService_orderAcceptanceCountry fields are present. For more information on order acceptance, see "Terminology," page 8 .	Optional	—	String (50)
taxService_orderAcceptanceCountry	Order acceptance country. This field is not used unless the taxService_orderAcceptanceState and taxService_orderAcceptanceCity fields are present. Use the two-character ISO Standard Country Codes . For more information on order acceptance, see "Terminology," page 8 .	Optional	—	String (2)
taxService_orderAcceptancePostal Code	Order acceptance postal code. This field is not used unless the taxService_orderAcceptanceCity , taxService_orderAcceptanceState , and taxService_orderAcceptanceCountry fields are present. For more information on order acceptance, see "Terminology," page 8 .	Optional	—	String (10)
taxService_orderAcceptanceState	Order acceptance state. This field is not used unless the taxService_orderAcceptanceCity and taxService_orderAcceptanceCountry 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)

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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
taxService_orderOriginCity	Order origin city. This field is not used unless the taxService_orderOriginState and taxService_orderOriginCountry fields are present. For more information on order origin, see "Terminology," page 8.	Optional	—	String (50)
taxService_orderOriginCountry	Order origin country. This field is not used unless the taxService_orderOriginState and taxService_orderOriginCity 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)
taxService_orderOriginPostalCode	Order origin postal code. This field is not used unless the taxService_orderOriginCity , taxService_orderOriginState , and taxService_orderOriginCountry fields are present. For more information on order origin, see "Terminology," page 8.	Optional	—	String (10)
taxService_orderOriginState	Order origin state. This field is not used unless the taxService_orderOriginCity and taxService_orderOriginCountry 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)
taxService_refundIndicator	Indicates that the tax amount from this transaction will be included in the refunded transaction. The following values are available: <ul style="list-style-type: none"> ■ true ■ false <p>Note Tax transactions with refund indicator set to <code>true</code> will not be included in tax reporting, unless the commit indicator is also set to <code>true</code>. Transactions with the refund indicator set to <code>true</code> are stored as a negative tax amounts in the database.</p>	Optional	Optional	String (5)

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.

4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Table 4 Request Fields (Continued)

Field	Description	Req/Opt for U.S. & Canadian Tax	Req/Opt for Intl. Tax/VAT	Data Type & Length
taxService_reportingDate	Reporting date of any committed transaction. Defaults to current date if not provided. Also the default Tax Calculation Date unless a different date is specified in invoiceHeader_invoiceDate . A repercussion of specifying a date in the past is placing the associated transaction in the past from a reporting/accounting period perspective. When specifying prior reporting periods, be sure to apply required validations or restrictions.	Optional	—	String (8)
taxService_run	Set this field to TRUE to request taxService .	Required	Required	String (5)
taxService_sellerRegistration	VAT seller registration number. See "International Taxes and Value-Added Tax (VAT)," page 11 .	—	Required for VAT	String (25)

- 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.
- 4 This tax service validates the address and attempts to derive the last 4 digits of the zip based on the address information provided by the merchant

Reply Fields

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

Table 5 Reply Fields

Reply Field	Description	Returned for VAT Orders?	Data Type & Length
decision	Summarizes the result of the overall request. The field can contain one of the following values: <ul style="list-style-type: none"> ■ ACCEPT ■ ERROR ■ REJECT 	Yes	String (6)

Table 5 Reply Fields (Continued)

Reply Field	Description	Returned for VAT Orders?	Data Type & Length
invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Advanced for the Simple Order API .	Yes	String (100)
merchantReferenceCode	Order reference or tracking number that you provided in the request. If you included multi-byte characters in this field in the request, the returned value might contain corrupted characters.	Yes	String (50)
missingField_0...N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. See the information about missing and invalid fields in Getting Started with CyberSource Advanced for the Simple Order API .	Yes	String (100)
purchaseTotals_currency	Currency used for the order. Formatted using the standard ISO Standard Currency Codes .	Yes	String (5)
reasonCode	Numeric value corresponding to the result of the overall request. See Appendix B, "Reason Codes," on page 47 for a list of possible values.	Yes	Integer (5)
requestID	Identifier for the request.	Yes	String (26)
taxReply_commitIndicator	Echo commit action back to you. The possible values: <ul style="list-style-type: none"> ■ true ■ false 	Yes	String (5)
taxReply_grandTotal Amount	Sum of the item amounts and tax amounts.	Yes	String (17)
taxReply_item_#_cityTax Amount	City tax for the item.	No	String (15)
taxReply_item_#_country TaxAmount	Country tax for the item.	Yes	String (15)
taxReply_item_#_county TaxAmount	County tax for the item.	No	String (15)
taxReply_item_#_exempt Amount	Exempt amount for the item.	No	String (15)
taxReply_item_#_jurisdiction_#_code	Jurisdiction code assigned by the tax provider.	No	String (15)
taxReply_item_#_jurisdiction_#_country	Tax jurisdiction country for the item.	No	String (15)

Table 5 Reply Fields (Continued)

Reply Field	Description	Returned for VAT Orders?	Data Type & Length
taxReply_item_#_jurisdiction_#_name	Free-text description of the jurisdiction for the item. For example, San Mateo County.	No	String (15)
taxReply_item_#_jurisdiction_#_rate	Jurisdiction tax rate for the item.	No	String (15)
taxReply_item_#_jurisdiction_#_region	Free-text description of the jurisdiction region for the item. For example, CA (California State) or GB (Great Britain).	Yes	String (15)
taxReply_item_#_jurisdiction_#_taxable	Jurisdiction taxable amount for the item, not including product level exemptions.	Yes	String (15)
taxReply_item_#_jurisdiction_#_taxAmount	Jurisdiction tax amount for the item.	No	String (15)
taxReply_item_#_jurisdiction_#_taxName	Name of the jurisdiction tax for the item. For example, CA State Tax.	No	String (15)
taxReply_item_#_jurisdiction_#_type	Type of jurisdiction for the item. For example, city, county, state, country, or special.	No	String (15)
taxReply_item_#_specialTaxAmount	Special tax amount for the item when the taxReply_item_#_jurisdiction_#_type field is set to <i>special</i> .	No	String (15)
taxReply_item_#_stateTaxAmount	State tax for the item.	No	String (15)
taxReply_item_#_taxableAmount	Taxable amount for the item.	No	String (15)
taxReply_item_#_totalTaxAmount	Total tax for the item.	Yes	String (15)
taxReply_reasonCode	Numeric value corresponding to the result of the tax calculation service request. See Appendix B, "Reason Codes," on page 47 for a list of possible values.	Yes	Integer (5)
taxReply_refundIndicator	Echo refund action back to you. The values are: <ul style="list-style-type: none"> ■ true ■ false 	Yes	String (5)
taxReply_totalCityTaxAmount	Total amount of city tax. This value is the sum of the values for all the taxReply_item_#_cityTaxAmount fields.	No	String (15)
taxReply_totalCountryTaxAmount	Total amount of country tax or Canada GST. This value is the sum of the values for all the taxReply_item_#_countryTaxAmount fields.	No	String (15)
taxReply_totalCountyTaxAmount	Total amount of county tax. This value is the sum of the values for all the taxReply_item_#_countyTaxAmount fields.	No	String (15)

Table 5 Reply Fields (Continued)

Reply Field	Description	Returned for VAT Orders?	Data Type & Length
taxReply_totalExemptAmount	Total amount of exempt amounts. This value is the sum of the values for all the taxReply_item_#_exemptAmount fields.	No	String (15)
taxReply_totalSpecialTaxAmount	Total amount of special tax. This value is the sum of the values for all taxReply_item_#_specialTaxAmount fields.	No	String (15)
taxReply_totalStateTaxAmount	Total amount of state tax or Canadian PST, HST, or QST. This value is the sum of the values for all the taxReply_item_#_stateTaxAmount fields.	No	String (15)
taxReply_totalTaxableAmount	Total amount of all taxable amounts. This value is the sum of the values for all the taxReply_item_#_TaxableAmount fields.	No	String (15)
taxReply_totalTaxAmount	Total tax for all items.	Yes	String (15)

Reason Codes

The following table lists the tax calculation service reason codes returned by the Simple Order API. See [Getting Started with CyberSource Advanced for the Simple Order API](#) for a discussion of replies, decisions, and reason codes.



Important

Because CyberSource can add reply fields and reason codes 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 use the **decision** field to determine the result if it receives a reason code that it does not recognize.

Table 6 Reason Codes

Reason Code	Description
100	Successful transaction.
101	The request is missing one or more required fields. See the information about missing and invalid fields in Getting Started with CyberSource Advanced for the Simple Order API . Possible action: See the reply fields missingField_0...N for which fields are missing. Resend the request with the complete information.
102	One or more fields in the request contains invalid data. See the information about missing and invalid fields in Getting Started with CyberSource Advanced for the Simple Order API . Possible action: See the reply fields invalidField_0...N for which fields are invalid. Resend the request with the correct information.
150	Error: General system failure. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
151	Error: The request was received but there was a server timeout. This error does not include timeouts between the client and the server. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.
152	Error: The request was received but there was a service timeout. See the documentation for your CyberSource client for information about how to handle retries in the case of system errors.

Table 6 Reason Codes (Continued)

Reason Code	Description
234	<p>There is a problem with your CyberSource merchant configuration.</p> <p>Possible action: Do not resend the request. Contact Customer Support to correct the configuration problem.</p>
600	<p>Address verification failed. Typically occurs if one part of the address is not consistent with another part. For example, occurs if the postal code is not consistent with the rest of the address.</p> <p>Possible action: Verify all parts of the address are correct and resend request.</p>

Supported Countries

Table 7 Supported Countries

Afghanistan	Lebanon
Albania	Lesotho
Algeria	Liberia
Andorra	Libyan Arab Jamahiriya
Angola	Liechtenstein
Anguilla	Lithuania
Antigua and Barbuda	Livigno
Argentina	Luxembourg
Armenia	Macau
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 7 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 7 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 7 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	United States
Jordan	Uruguay
Kazakhstan	Uzbekistan
Kenya	Vanuatu
Kiribati	Venezuela
Kosovo	Vietnam
Kuwait	Virgin Islands, British
Kyrgyzstan	Wallis and Futuna
Lake Lugano, Territorial Waters of	Yemen
Lao People's Democratic Republic	Zambia
Latvia	Zimbabwe

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 reason code of 600.

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

Table 8 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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