

Simplified duty/tax collection concept for low value imports

GLOBAL DUTY/TAX RATE REPOSITORY AND

APPLICATION PROGRAMMING INTERFACE (API)

TECHNICAL ASPECTS PAPER BY THE GLOBAL EXPRESS ASSOCIATION¹ (SEPTEMBER 2022)

To enable reliable and accurate duty/tax calculation and collection at the point of sale by the overseas vendor in the departure country², there is a need for a global repository that would be the central reference point for accessing the applicable official duty and tax rate. Such a global repository should be either located or managed at a central point, for example an international organization such as the WTO, and would be regularly updated with the official duty/tax rate information by a designated contact point of the participating governments. The vendor would be able to access such global repository through an API (Application Programming Interface), which can be integrated in the online shop of the vendor's website, the online marketplace or the e-commerce platform.

The API would query the global repository using standardized data, messaging and communication protocols. The API would look up the requested information in the central repository and return the requested data to the vendor's system. In the following, important technical aspects of the global repository and the API are being detailed and explained to support technical discussions and the development of such solution.

1. Global duty/tax rate repository

The global duty/tax rate repository can take the form of a centrally located database or as a distributed ledger.

a. Central database

The central database option would involve a central location to host the database, such as the WTO, where the official duty/tax rate information and updates thereof would be provided by the participating governments either directly through database access by the designated contact points or through communication of those with the database management unit of the host organization.

The central database would have an API to enable the access to the database information by the vendor or other interested parties.

b. Distributed Ledger

The distributed ledger option would take advantage of latest blockchain technology whereby the global repository would be organized as a permissioned blockchain moderated by the host organization and where the designated contact points of the participating governments would maintain their duty/tax rate information in a pre-defined format on the blockchain.

The duty/tax rate blockchain would have an API enabling the access of the duty/tax information through web services.

¹ The Global Express Association is the trade association of the global express carriers: DHL Express, FedEx Express and UPS.

² See [GEA Proposal on simplified duty/tax collection for Low Value Shipments](#)

The minimum data required from each participating government for either the central database or the distributed ledger option (depending on which option gets implemented) would have to include:

Header level:

- Country of destination, ISO-2-Alpha country code
- Name of responsible organization, an..70
- Name of responsible unit/department, an..70
- Contact details (e-mail address), an..70
- Validity period, n8, DDMMYYYY
- Last update, n8, DDMMYYYY

Item Level:

- Threshold value for applying the simplified collection approach, in local currency, an..4,2
- Currency code, an3, ISO-3 Alpha, e.g. "EUR"
- Threshold value for applying the simplified collection approach, in USD, an..4,2
- Currency code, an3, ISO-3 Alpha, e.g. "USD"
- Commodity description (simple key words), an..180
- Country of sale, a2, ISO-2-Alpha country code
- Country of origin of goods sold (if different from country of sale), a2, ISO-2-Alpha country code
- applicable duty rate (in %), an..2,2
- applicable GST/VAT rate (in %), an..2,2
- Other tax, if applicable, e.g. provincial sales tax (in %), an..2,2
- ... (other?)

Ideally, the repository should be located or managed at a central point, for example an international organization such as the WTO, supplied with up-to-date, accurate information from the participating governments and maintained by them. Each participating government would have to make their respective GST/VAT rate information publicly available and provide it to said central reference point. The information would have to be kept up to date, be legally valid and reliable.

In addition to the web services of the API, the global repository should also be accessible through a public website with a simple search function by country, by commodity or by other criteria.

Note: *This section would require more detail about the maintenance process both at central and at national level*

2. Application Programming Interface (API)

Vendors world-wide would access the information of the global duty/tax repository through an Application Programming Interface (API) using web services. The web services would include a minimum the following messages in either XML or JSON format:

a. Duty/tax rate request message

The duty/tax rate request message (DTRREQ) of the API would use the data from the shopping process to enquire the applicable duty and or tax rate for each individual product to be sold. The DTRREQ would include the following data:

- Request ID (unique number identifying the request), an..35
- Country of destination, using ISO-2-Alpha country code
- Commodity description, an..180
- Value of item, including delivery costs, in USD, an..4,2
- Currency code, ISO-3 Alpha, e.g. "USD"
- Country of sale, using ISO-2-Alpha country code
- Country of origin, if different from ctry of sale, using ISO-2-Alpha country code
- Date of purchase, (DDMMYYYY)

With the DTRREQ, the API would call up the respective country information, check the item value against the threshold value to determine whether the simplified collection method is applicable, check country of origin and prepare the DTRRES message to return the result together with a unique response ID that will enable recognition of the data in subsequent communications (invoice, HAWB, remittance, other) with buyer, carrier and tax authorities.

b. Duty/tax rate response message

The duty/tax rate response message (DTRRES) of the API would send back the following data and be valid for 24 hours after the request:

- Response ID (unique number identifying the response), an..35
- Request ID reference (unique number of the corresponding request), an..35
- Rate info group, 1..5
 - Rate type, coded, n1 (1=duties; 2=GST; 3=VAT; 4=Flat; 5=Other)
 - Rate (in %), an..2,2
- Response valid until, (DDMMYYYY)

The vendor's shopping application would use the data received from the API through the DTRRES message to calculate the applicable duty/tax amount for each of the products to be sold and to arrive at the landed costs for the purchase.

The assessment basis for calculating Customs duties is the item value including delivery cost, the assessment basis for calculating GST/VAT is the item value, including delivery cost plus the Customs duty amount, if applicable.

c. Error message

The duty/tax rate error message (DTRERR) of the API would return the following data containing error information:

- Response ID (unique number identifying the response), an..35
- Request ID reference (unique number of the corresponding request), an..35
- Error information, coded, n1
 - 1 = Item value exceeds threshold
 - 2 = Commodity not found
 - 3 = Date of purchase invalid
 - 4 = Country of sale invalid
 - 5 = Country of origin invalid
 - 6 = Other
- Error information, an..180