Global Tax API

Automate sales tax compliance globally with our robust API, encompassing countries across all continents. Our dataset includes over 40,000 US sales tax rates, Australian GST, Canadian GST/HST and PST, EU/UK VAT, and the latest additions of Mexican and various African/Middle Eastern tax rates. Experience streamlined, efficient tax calculations and compliance in these international markets, all effortlessly managed through our API. Our RESTful API has resource-oriented URLs, returns JSON-encoded responses, and leverages standard HTTP response codes.

Authentication

Global Tax API utilises a username and password for authentication. Failure to include these credentials or use incorrect or disabled ones whilst making an API request will cause the API to return an error. Upon successful authentication, the response includes a JSON string containing the API Key. Accessing the API endpoints requires the API Key.

Using our API comes at a cost; we require authentication to ensure the stability of the API by enforcing rate-limiting. Additionally, in the future, we might expose additional API endpoints to expose data specific to your Global Tax API account, which the corresponding account details can determine. Therefore, we recommend keeping your credentials in a safe space and not share it.

API Primitives

We structured our API around the following primitives. Understanding the relationships between these primitives will be helpful as you onboard to the API:

- **USA Sales Tax:** The highest level API Primitive. It allows for a collection of automated procedures to calculate, track, and apply United States sales tax rates. It is dynamically updated based on geographical locations, including federal, state, and local jurisdictions, ensuring accurate sales tax calculations at the point of sale. Additionally, the primitive can help manage compliance by creating reports suitable for tax filing purposes, minimising manual intervention and the potential for error.
- **USA Economic Nexus:** Use the API Primitive to automate identifying when a business has established an economic presence, or "nexus", within any state or jurisdiction, prompting sales tax obligations.
- **USA Address Validation:** This API Primitive offers real-time validation and standardisation of United States postal addresses. Through its integration, it can help e-commerce platforms and logistics solutions ensure addresses are accurate and deliverable, reducing the risk of shipping errors and undelivered packages.

- **Type of Service (Categories):** This API Primitive returns items or product categories. Through its integration, it can help vendors and e-commerce platforms accurately calculate the VAT or Sales tax to be collected based on the type of product sold, ensuring compliance with tax regulations and reducing the risk of errors in tax collection.
- **Calculate Taxes:** The API primitive provides a sophisticated tax calculation solution for services and vendors, allowing them to calculate VAT or sales tax accurately according to the product type.
- **African Countries Sales Tax Rates:** We designed this API Primitive to navigate the diverse sales tax systems across African countries. It provides real-time, up-to-date sales tax rates, ensuring compliance with local tax laws. The system adapts to each African country's specific tax requirements, streamlining sales tax management and reducing errors in tax filings.
- **Asian Sales Tax:** The primitive focuses on the diverse economic landscapes across Asia, delving into varying tax structures unique to each nation in this vast continent.
- **Australian GST Rates:** This API Primitive offers a solution for managing Goods and Services Tax (GST) in Australia. It provides automated procedures to calculate and apply Australian GST rates accurately. The system is dynamically updated to reflect current GST rates, which apply uniformly across all states and territories. This primitive also aids in compliance, enabling businesses to generate GST reports that are precise and ready for tax filing, reducing manual work and the risk of errors.
- **Canadian Sales Tax Rates:** We designed the Canadian Sales Tax Rates API Primitive to handle the complexities of Canada's sales tax system, including the Goods and Services Tax (GST), Provincial Sales Tax (PST), and Harmonized Sales Tax (HST). It dynamically updates to reflect the varying tax rates across provinces and territories. It ensures accurate sales tax calculations at the point of sale. It assists in compliance by generating comprehensive tax reports, streamlining the tax filing process, and reducing the likelihood of manual errors.
- **Central and South American Sales Tax:** Utilise the primitive to handle the complex tax regimes and economic policies in Central and South American countries, highlighting region-specific challenges in tax administration.
- **Mexican Sales Tax Rates:** The primitive tackles the intricacies of Mexico's sales tax system, including the standard value-added tax (IVA) and special tax rates applicable in different regions.
- **Middle Eastern Countries Sales Tax Rates:** We designed this primitive to manage the intricate sales tax structures prevalent in Middle Eastern countries, focusing on Turkey's complex system. It delivers current, accurate sales tax rates, facilitating adherence to this region's varied tax regulations. It enhances the efficiency of sales tax handling and minimising inaccuracies in tax reporting.
- **Oceania Sales Tax:** The primitive provides insight into Oceania's economic environment, covering the tax systems across the region's island nations.

- **EU VAT Rates:** This API Primitive provides an interface for accessing Value Added Tax (VAT) rates applicable across European Union member states, including the United Kingdom. It facilitates accurate VAT calculation by returning each country's standard and reduced rates based on its unique country code. Furthermore, this dynamic resource supports businesses in ensuring regulatory compliance, reducing potential errors, and simplifying tax-related processes.
- **EU VAT Validation:** The Primitive can verify and validate VAT numbers associated with businesses operating within the European Union. Companies can confirm the authenticity and validity of VAT numbers in real time, ensuring they are interacting with legitimate entities, thereby reducing potential fraud risks. Moreover, it assists in maintaining compliance with EU tax regulations, simplifying the VAT management process, and fostering confidence in cross-border transactions.
- **UK VAT Rates:** This API Primitive facilitates access to value-added tax (VAT) rates within the United Kingdom. It enables precise VAT calculations by providing standard and reduced VAT rates tailored to the specific needs of businesses operating within the UK. The tool updates dynamically to reflect current VAT rates and supports businesses in adhering to regulatory compliance. It simplifies the VAT management process, minimises errors, and enhances efficiency in tax-related operations.
- **UK VAT Validation:** The Primitive verifies VAT numbers specific to UK businesses, confirming their authenticity and compliance with tax regulations. It returns details about the VAT-registered entity and enhances transaction transparency and trust. This tool is vital for businesses aiming to simplify VAT management while maintaining strict compliance and security standards.

Webhooks

We implemented webhooks to inform other systems or services about important user events and enable them to react accordingly.

- **Webhooks (Signup):** triggers when a new user successfully registers for the Global Tax API service. It sends an event notification to the specified URL with the event type "sign_up" and includes the event data, such as the user's email, username, and other relevant information. The receiving systems listen to this event and perform necessary actions, like sending a welcome email, updating internal user analytics, or adding the user to a mailing list.
- **Webhooks (Log in):** triggers when a user successfully logs into the Global Tax API service. The webhook sends an event notification to the specified URL with the event type "login" and includes the event data, such as the user's email, username, and any additional relevant information. The receiving systems can listen for this event to perform necessary actions, like updating internal user analytics, logging the user's last login timestamp, or notifying them of any updates since their last login.

- **Webhooks (Forgot Password):** triggers when a user requests a password reset. The webhook sends an event notification to the specified URL with the event type "forgot_password" and includes the event data, such as the user's email. The receiving systems can listen for this event to perform necessary actions, like updating internal user analytics, logging the password reset event, or notifying the user of any security-related updates or recommendations.

Rate Limiting

Rate limiting is a critical aspect of the API's scalability, and as such, we measure processing limits in Transactions Per Second (TPS). To prevent abuse by automated systems (bots) and humans, we are enforcing a limit to the number of requests and quantity of data clients can consume.

- X-RateLimit-Limit is the maximum number of requests per second or day depending on your subscription plan.
- X-RateLimit-Remaining denotes the number of request(s) you've got left.
- X-Rate-Limit-Reset denotes when the current window ends, in seconds from the current time.
- Retry-After denotes how long you have to wait before making a new request.
- Use the rate_limit_checker endpoint to check how many requests you have remaining in your subscription plan.

Role-based Access Control (RBAC)

We decided to implement and enforce RBAC on our endpoints with these two roles, admin and users. Henceforth, we have ensurer and enforcer, and as the naming convention implies:

- Ensurer ensures request must comply with all the rules attached to it.
- Enforcer enforces rules no matter the request and/or from whom.
- Both Ensurer and Enforcer targets header, path, or query.
- Both Ensurer and Enforcer contain a set of rules.

Going forward, users can access these resources: /v2/login (POST), /v2/usa_sales_tax (GET), /v2/usa_nexus (GET), /v2/usa_nexus/{state_code} (GET), /v2/addresses/us/validate/{zip_code} (POST), /v2/categories (GET), /v2/categories/{service_code} (GET), /v2/calculate_taxes (POST), /v2/africa_sales_tax (GET), /v2/africa_sales_tax/{country} (GET), /v2/asia_sales_tax (GET), /v2/asia_sales_tax/{country} (GET), /v2/aussie_sales_tax (GET), /v2/aussie_sales_tax/{territory} (GET), /v2/canada_sales_tax (GET), /v2/canada_sales_tax/{province} (GET), /v2/csa_sales_tax (GET), /v2/csa_sales_tax/{country} (GET), /v2/mexico_sales_tax (GET), /v2/mexico_sales_tax/{territory} (GET), /v2/me_sales_tax (GET), /v2/me_sales_tax/{country}

(GET), /v2/oceania_sales_tax (GET), /v2/oceania_sales_tax/{country} (GET), /v2/eu_vat_rates (GET), /v2/eu_vat_validation (GET), /v2/uk_sales_tax (GET), /v2/uk_vat_validation (POST) and /v2/rate_limit_checker (GET), whilst admin can access all resources without restrictions.

ETag Support

The API supports ETags, which allows the API to signal to developers whether or not data from previous queries have changed.

Usage:

- When fetching from the API, the response header will include an ETag with a digest of the response data. Save this ETag value for future requests to the same route. An example ETag response header:ETag: "W/"e4-hFc9aHGYZmwXvrBC8byswCwD+x0d"
- If the data hasn't changed, the response status code will be 304 (Not Modified) and no data will be returned.
- If the response data has changed since the last request, the data is returned normally with a new ETag in the response header. Save this value for future requests.

API Deprecation

When an API endpoint is scheduled for deprecation the following actions will be taken:

- We will mark the endpoint documentation as deprecated with a migration plan included.
- The endpoint will have Sunset in the header (Sunset HTTP Header) added to indicate the last date you should rely on it.
- We will send out an email to third party developers notifying them of the deprecation.
- We will register an entry in the API Changelog.

When the Sunset date has passed, a follow-up email will be sent to active third-party developers notifying them of the deprecation.

Possible Response Code

CODE	DESCRIPTION
200 OK	Your request has been processed. The response includes the requested object.
201 Created	Your request has been processed and the resource was created. The response includes the created object.
202 Accepted	Your request has been accepted and will be processed shortly.
204 No Content	Your request has been processed.

CODE	DESCRIPTION
401 Unauthorized	Request refused, invalid authentication credentials.
403 Forbidden	Request authentication failed.
404 Not Found	The requested resource could not be found.
405 Method Not Allowed	Attempt to access endpoint with invalid method.
422 Unprocessable Entity	The request contains invalid JSON formatting or data. Problems are specified in response.
429 Rate Limit Reached	You have exceeded the amount of allowed API calls in a given time frame.
5XX Internal Server Error	The server encountered an unexpected error, please try again later or contact our support department.

Performance Tips

Please reach out to us via email if you have any additional feature requests.