

IETF Hackathon

One Tax API

IETF 112

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Online

Hackathon Plan

- Determine standards needed to enable secure and efficient taxation of e-commerce
- Motivated by [introduction of taxes on digital payments in Kenya](#)
- Minimise need for double registration for small to moderate transactions
- A standards tax API in Kenya and African countries

What got done

- Literature review
- Initial design specifications
- Learned a little more about Go from [Mofizur Rahman](#)
- [Prototype API to look up tax rates](#) using [ISO-3166 codes](#)

Problem

African and Asian countries are not covered by Stripe API

Solution

Provide an API that can provide a solution to most of these countries

Case study (Stripe taxes)

Stripe automates tax collection and calculation. This helps the collection of the right amount and access reports necessary for return filing.

Problem Solved by stripe tax

- Tax Localization - based on customer location
- Tax ID validation - automatic validation of VAT ids
- Filing and remittance - provides reports so you can easily file on your own
- Coverage - all US states over 30 countries mostly in Europe and Canada.

Design

1. Tax Rates

- A resource to allow you to define any number of tax rates and apply them to invoices and subscriptions.

Attributes

- id (Integer) - unique identifier
- type (String) - tax type eg vat, digitaltax
- active (Boolean) - determine is active or inactive
- country (ISO code) - 2 letter country code
- name (String) - Display name eg 'vat'
- percentage (decimal) - rate percentage
- state(string) - ISO code
- created_at(timestamp)
- updated_at(timestamp)

What we learned

- [Stripe has a tax rate lookup](#)
- A number of bodies to standardize payments
 - [EMVCO](#)
 - [PCI](#)
- [OECD has taxation guidelines](#)
- [Business to consumer taxes for e-commerce are an OECD priority](#)
- Relevant RFCs include [5280](#) used in [3D Secure](#) and [Secure Electronic Transaction](#)

What Next

- More complete API specification
- Add example APIs for payment processor to tax authority payments
- Use full ISO 3166 codes for sub country level taxation
- Consider security and privacy aspects in more detail
- Try API implementations in other programming languages

Wrap up

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