



## API Introduction

What is an API?

2

## Why do I need to know about 'API'?

- GiftOnline has an **API** and clients have been asking about it
- From a provider point of view, would be good to demonstrate:
  - **In-depth knowledge** of the product we are selling
    - Further solidify **client's trust** in Buzzacott
- Knowledge will be useful even when GiftsOnline is deprecated - **SKY API**, general knowledge

3



<https://youtu.be/s7wmIS2mSXY>

4

## What is an API?

- An **interface** to access **data** via the **internet**

### Advantages

- Automate processing of data
- Flexible

### Disadvantages

- Cost
- Security risk

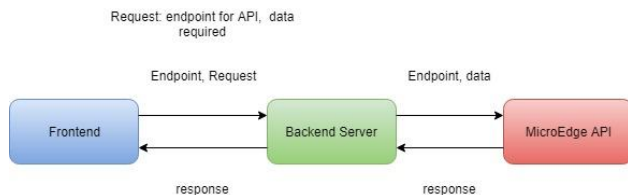
5

## Usage of an API

- Obtain specific fields for certain clients (e.g. **funds** and **program area**) from **exported A/P files**
- Export **request** data in a **.csv** file
- Perfect if clients want to export GiftsOnline data into another **System/Format**
  - With the API you can **automate it**

6

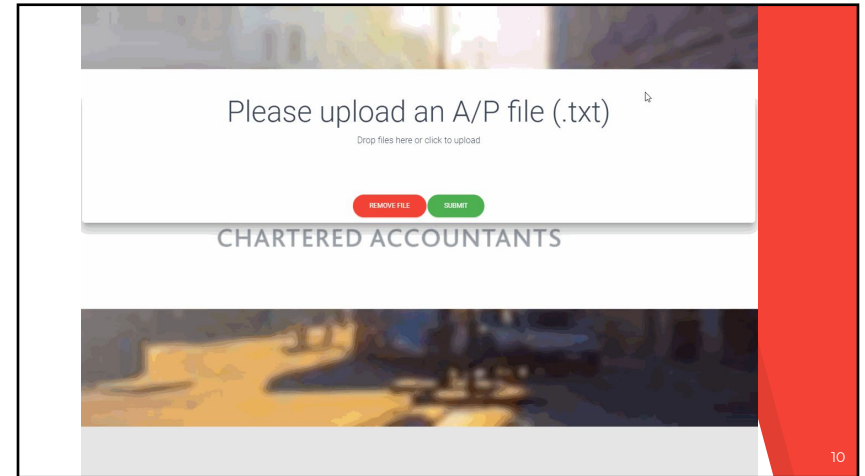
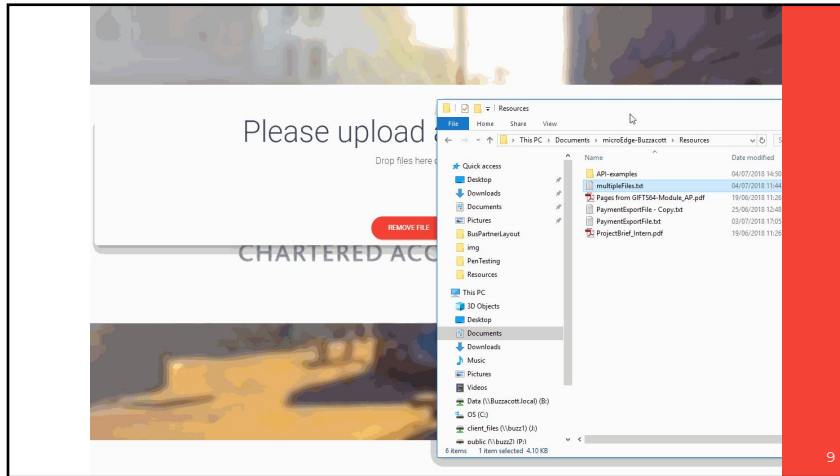
## HTTP Request Architecture



7

## 1. Example usage

API Usage



## Steps I took

- Get through firewall (Week 1)
- Make initial contact with API (Week 2)
- Experiment receiving values ( Week 3)
- Process results (Week 4- 5)
- Presentation prep (Week 4-6)

11

- [Github Tutorial](#)
  - Possibly hand out to clients who wish to get started
  - Requires basic programming knowledge
- [John's Github](#)

12

## 2.

### MicroEdge API

API Usage

#### Organization

##### What it can do

- Get organization(s)
- Update **TaxID** and **VendorNo** fields

##### What it cannot do

- Modify organization

All fields: <https://ukdocs.api.microedge.com/#organization>

14

#### Contact

##### What it can do

- Get contact(s)

##### What it cannot do

- Modify contacts

All fields: <https://ukdocs.api.microedge.com/#contact>

15

#### Requests

##### What it can do

- Get request(s)
  - ID
  - Search criteria (e.g. date)
- Update custom fields

##### What it cannot do

- Modify requests

Search criteria: <https://ukdocs.api.microedge.com/#getrequests>

All fields: <https://ukdocs.api.microedge.com/#request>

16

## Payments

### What it can do

- Get payment(s)
  - ID
  - Search criteria (e.g. date)
- Get scheduled payments
  - for approved Requests in a specified Schedule Date range.

17

## Payments

### What it can do

- Pay payment a scheduled payment
  - changing its status to **paid**
  - setting the **payment date**, **check number**, and **notes** of the payment.
- Cancel payment
  - Cancel a scheduled Payment, changing its status to **cancelled**.

18

## Payments

### What it can do

- Void a paid Payment
  - creating a new Payment with a status of void and a negative amount.

19

## Payments

### What it can do

- Refund a paid payment
  - creating a new Payment with a status of refund with
    - **specified amount**
    - **fiscal year**
    - **schedule date**
    - **payment date**

20

## Payments

**NOTE:** In order to create a refund payment, it must

- Belong to an approved request with a grant amount exceeding the total payment amount by the amount of the refund payment.
- Also, the new refund payment must not belong to a budget in which its request type or the default payment type require budget appropriation.

21

## Payments

### What it cannot do

- Get bank details (account no, sort code)
- Create a payment

22

## Requirement

### What it can do

- Get requirement(s)
  - ID
  - Search Criteria

### What it cannot do

- Modify requirement

All fields: <https://ukdocs.api.microedge.com/#requirement>

23

## To Do

### What it can do

- Get Todo(s)
  - ID
  - Search Criteria

### What it cannot do

- Modify Todo

All fields: <https://ukdocs.api.microedge.com/#to-do>

24

# 3.

## Errors

Validation  
Verification

### Common errors

The client and server cannot communicate, because they do not possess a common algorithm

- BlackBaud GrantMaking API uses **TLS 1.1**, **TLS 1.2**. Connecting using **TLS 1.0** causes this error.
- **TLS 1.0** was deprecated as of March 2018

26

### Common errors

**403: Out of call volume quota. Quota will be replenished in hh:mm:ss**

- **403 Forbidden error** is an HTTP status code which means that accessing the resource is absolutely forbidden
- The account, (from the API key) has made the maximum number of requests - per second (20) or per 24 hours (10,000)

27

### Pay Payment errors

- Cannot be **red-locked** by another user (locked from gifts Online)
- The Payment must have:
  - a status of **Scheduled**
  - the associated Request must have the **disposition of Approved** to be marked as paid

28

### Pay Payment errors

- Requires **Budget year** for **Payments fiscal year**
- Requires a **Budget Appropriation**

29

### Void Payment errors

- Payment ID cannot be **zero**
- Requires status to be **void**
- Cannot be voided **more than once**
- Cannot be **red-locked** by another user (locked from gifts Online)

30

### Cancel Payment errors

- Status must be **scheduled** or **hold**
- Cannot be **red-locked** by another user

31

### Refund Payment errors

- The new Refund payment **cannot refund more** than the chosen Payment.
- The chosen payment must have a **positive balance** (*there must be something to Refund*).

32



### Organization errors

- Vendor Number cannot be more than **20 characters**
- Tax ID cannot be more than **20 characters**

33

END

34