

Using the Staging Matching Service (V2 and Batch)

This document guides operators through the process of connecting to the staging matching service for GAMSTOP, Great Britain's national online self-exclusion scheme.

It is expected that this document could be updated in future. Operators should visit the operator portal regularly to check for updated versions.

Revision Log

Date Published	Version	Summary of Changes
2018-07-16	1	First published to all operators as a single document on Operator Portal.
2019-08-20	2	Updated with changes for /v2.
2019-09-27	3	Added information for batch endpoint.
2019-10-03	4	Removed reference to previous endpoint hostname.
2019-10-22	5	Removed references to API key expiry; updated batch endpoint references.
2019-11-18	6	Updated quoting in batch endpoint CURL commands to handle empty strings.
2019-11-19	7	Include reference to rate limits on the batch endpoint.
2019-11-25	8	Updated batch endpoint rate limits regarding IP addresses.
2019-12-19	9	Updated swagger definitions to include correlationId
2020-01-15	10	Correct batch example from 'apiKey' to 'X-API-Key'
2020-02-05	11	Clarified details for rate-limits on the batch endpoint.
2020-02-10	12	Replace 'pattern' with a 'date' format in the date-of-birth definition in the swagger doc. Update min/max length for first/last names.
2020-02-27	13	Remove reference to 429 responses in the Batch swagger definition.
2020-03-05	14	Remove reference to 429 responses in the Ping swagger definition. Replace 'ms-request-id' with 'msRequestId' in swagger definitions.

Using the Staging Matching Service

Whitelist your IP Addresses

You need to whitelist all the Internet Protocol ('IP') addresses you use to access the GAMSTOP matching service. This is for security purposes.

You can do this on the IPs page of the operator portal (<https://operator.stage.gamstop.io/ip-addresses>).

Getting an API Key

In order to interact with the matching service API you will need an API key, which comes in the form of a long character string. The string consists of two parts: the first part is your unique identifier code, which is 9 characters long. This identifies you as an operator. The second part is the API key itself, which will always be a 32 character hexadecimal string. The two parts are separated by a hyphen ('-').

Here's an example of how an API key might look:

Operator ID	API Key	API Key as it is supplied to you
2d543d1d	4fe1234941a894ca1c263a4812341234	2d543d1d-4fe1234941a894ca1c263a4812341234

The implementation contact for your organisation can generate up to 5 API keys from the API page of the operator portal (<https://operator.stage.gamstop.io/keys>).

DNS Names

The API is currently accessible via DNS names:

<https://api.stage.gamstop.io/v2>

The api.* name is intended to be the main entry point and this will be the DNS name that uses the Route 53 latency based routing to identify the nearest data centre for a caller. This provides both the best response in terms of latency and also inter-data centre failover.

Using the API from the Command Line

Once your IP addresses have been whitelisted, and you have an API key, the simplest way to interact with the API is from the command line. Here are a few sample queries using curl:

Check your IP is Whitelisted

```
$ curl -i -X GET https://api.stage.gamstop.io/health
```

Expected Response

If you have connected successfully to the health check, you'll receive the following:

```
HTTP/2 200
date: Fri, 27 Sep 2019 10:06:10 GMT
content-length: 0
```

Connect Without an API Key

```
$ curl -i -X POST https://api.stage.gamstop.io/v2 -d firstname=Harry -d lastName=Potter -d 'dateOfBirth=1970-01-01' -d 'email=harry.potter@example.com' -d 'postcode=hp11aa' -d 'mobile=07700900461'
```

Expected Response

If you don't provide an API key X-API-Key in your header, you'll receive the following:

```
HTTP/2 401
date: Fri, 27 Sep 2019 10:02:19 GMT
content-type: application/json; charset=utf-8
content-length: 41
access-control-allow-origin: *

{"message": "No API key found in request"}
```

Connect with an Invalid or Inactive API Key

```
$ curl -i -X POST https://api.stage.gamstop.io/v2 -H 'X-API-Key: 2d543d1d-4fe1234941a894calc263a48d34db33f' -d firstname=Harry -d lastName=Potter -d 'dateOfBirth=1970-01-01' -d 'email=harry.potter@example.com' -d postcode=hp11aa -d mobile=07700900461
```

Expected Response

If you don't provide a valid API key X-API-Key in your header, or one that has not been activated, you'll receive the following. Remember – it can take up to 15 minutes for a newly-generated key to become active.

```
HTTP/1.1 403
date: Sun, 13 Aug 2017 20:55:05 GMT
Content-Type: application/json; charset=utf-8
cache-control: no-cache

{"message": "Invalid authentication credentials"}
```

Connect with a Valid and Active API Key

```
$ curl -i -X POST https://api.stage.gamstop.io/v2 -H 'X-API-Key: 2d543d1d-4fe1234941a894calc263a48d34db33f' -d firstname=Daniel -d lastName=Pasquier -d 'dateOfBirth=1945-05-29' -d 'email=umaury@blanc.org' -d postcode=PE166RY -d mobile=07700900000
```

Expected Response

If you provide a valid and active API key X-API-Key in your header, you'll receive the following:

```
HTTP/2 200
date: Fri, 27 Sep 2019 10:19:04 GMT
content-length: 0
x-exclusion: Y
x-unique-id: xxxx
access-control-allow-origin: *
```

Providing File-based API Parameters

```
$ cat daniel.txt

firstname=Daniel&lastName=Pasquier&dateOfBirth=1945-05-
29&email=umaury@blanc.org&postcode=HP11AA&mobile=07700900000

$ curl -i -X POST https://api.stage.gamstop.io/v2 -H 'X-API-Key: 2d543d1d-
4fe1234941a894calc263a48d34db33f' -d @daniel.txt
```

Expected Response

If you provide correct parameters in your file, you'll receive the following:

```
HTTP/1.1 200
date: Sun, 13 Aug 2017 20:59:54 GMT
X-Exclusion: Y
X-Unique-Id: xxxx
```

Providing a Trace Identifier

To enable us to trace your request, you can provide a trace identifier as part of your request.

```
$ cat evelyn.txt

firstname=Evelyn&lastName=Murray&dateOfBirth=1945-08-
06&email=wayne.fox@hotmail.com&postcode=MK160FL&mobile=07700900003

$ curl -i -X POST https://api.stage.gamstop.io/v2 -H 'X-API-Key: 2d543d1d-
4fe1234941a894calc263a48d34db33f' -H X-Trace-Id:178afc -d @evelyn.txt
```

Expected Response

If you provide a trace identifier in your request, you'll receive the following. Note that the trace identifier is not returned to you in the response.

```
HTTP/1.1 200
date: Sun, 13 Aug 2017 21:01:41 GMT
X-Exclusion: P
X-Unique-Id: xxxx
```

Providing Multiple Excluder Records

You may send up to 1,000 records in a single request using the endpoint:

<https://batch.stage.gamstop.io/v2>

Requests are limited to an average of 1 request per second in a 5-minute period, per whitelisted IP address. To check the batch endpoint is up use the following command:

```
$ curl -i -X GET https://batch.stage.gamstop.io/health
```

Expected Response

If you have connected successfully to the health check, you'll receive the following:

```
HTTP/2 200
date: Fri, 27 Sep 2019 10:07:28 GMT
content-length: 0
```

When using the batch endpoint ensure the body of your request is in JSON format, as in the example below:

```
$ curl -i -X POST https://batch.stage.gamstop.io/v2 -H 'X-API-Key: 2d543d1d-4fe1234941a894calc263a48d34db33f' -H 'Accept: application/json' -d '[{"firstName": "Daniel", "lastName": "Pasquier", "dateOfBirth": "1945-05-29", "email": "umaury@blanc.org", "postcode": "PE166RY", "mobile": "07700900000"}, {"firstName": "Harry", "lastName": "Potter", "dateOfBirth": "1970-01-01", "email": "harry.potter@example.com", "postcode": "HP11AA", "mobile": "07700900004"}]'
```

Expected Response

If you provide correct parameters in your request, you'll receive the following response headers:

```
HTTP/1.1 200
date: Sun, 13 Aug 2017 20:59:54 GMT
X-Unique-Id: xxxx
```

In addition to the following response body:

```
[{"exclusion": "Y", "msRequestId": "ae24040a-5d8dd848-00000040"}, {"exclusion": "N", "msRequestId": "ae24040a-5d8dd848-00000041"}]
```

Using the API from a Programming Language

The above set of curl command should be sufficient to illustrate how to call the API and how to pass parameters. The Swagger API definition should allow a client library to be generated. A hand-rolled solution is not recommended.

Use of TLS

The API must be called using TLS/1.2. Earlier versions are not officially supported.

Things to Avoid

Please don't include `Expect: 100-Continue` in the HTTP Request Header, this is a default in certain technologies such as `curl`. This causes long response times as the server first responds with an HTTP 100 response and then the client sends the API request and the server then responds.

Swagger API Definition for Single Record Requests

Swagger Definition

A Swagger definition of the matching service API is shown below. This is a machine- readable definition of:

- the operations on the API
- what parameters they take and how
- what validation is applied
- what data fields are returned
- what status codes and errors can be returned

More information about Swagger is available here: <https://swagger.io/>

Tools are available for editing the API definition and, since the definition is machine readable, for generating code for both clients and servers in multiple languages.

```
swagger: '2.0'
info:
  description: Search for a person
  version: 2.0.0
  title: gamstop
  termsOfService: Only authorised users
  contact:
    email: support@gamstop.co.uk
schemes:
  - https
consumes:
  - application/x-www-form-urlencoded
produces:
  - application/x-www-form-urlencoded
security:
  - X-API-Key: []
paths:
  /v2:
    post:
      summary: Search for person
      consumes:
        - application/x-www-form-urlencoded
      parameters:
        - name: firstName
          in: formData
          required: true
          type: string
          minLength: 1
          x-example: Harry
          description: First name of person
        - name: lastName
          in: formData
          required: true
          type: string
          minLength: 1
          x-example: Potter
          description: Last name of person
        - name: dateOfBirth
          in: formData
          required: true
          type: string
          minLength: 10
          maxLength: 10
          format: date
          x-example: '2003-04-06'
          description: Date of birth in ISO format (yyyy-mm-dd)
        - name: email
          in: formData
          required: true
          type: string
          minLength: 0
          maxLength: 254
          x-example: harry.potter@example.com
          description: Email address
        - name: postcode
          in: formData
```

```

    required: true
    type: string
    minLength: 5
    maxLength: 10
    x-example: HP1 1AA
    description: Postcode - spaces not significant
- name: mobile
  in: formData
  required: true
  type: string
  minLength: 0
  maxLength: 14
  x-example: 07700900461
  description: >-
    UK mobile telephone number which may include spaces, hyphens and
    optionally be prefixed with the international dialling code
    (+44, 0044, +353, 00353).
- name: X-Trace-Id
  in: header
  required: false
  type: string
  maxLength: 36
  description: >-
    A freeform field that is put into the audit log that can be used by
    the caller to identify a request. This might be something to
    indicate the person being checked (in some pseudonymous fashion),
    a unique request ID, or a trace ID from a system such as zipkin
responses:
  '200':
    description: Returned for a normal search
    headers:
      X-Exclusion:
        type: string
        description: Exclusion type
        enum:
          - 'Y'
          - 'N'
          - 'P'
      X-Unique-Id:
        type: string
        description: >-
          Unique reference that identifies this call in the GAMSTOP logs.
          Should be quoted by an operator when contacting GAMSTOP with a
          either a technical or an application query
  '400':
    description: Returned if missing parameters
  '403':
    description: Returned if API key invalid or IP address not in range
  '405':
    description: Returned for non-POST calls
securityDefinitions:
  X-API-Key:
    type: apiKey
    name: X-API-Key
    in: header
    description: long character string issued to authorised users only.

```

Swagger API Definition for Batch Requests

Swagger Definition

A Swagger definition of the matching service's batch endpoint is also provided below. This allows for the processing of multiple records in a single request.

```
swagger: '2.0'
info:
  description: Search for persons - batch
  version: 2.0.0-batch
  title: gamstop
  termsOfService: Only authorised users
  contact:
    email: support@gamstop.co.uk
host: batch.stage.gamstop.io
schemes:
- https
consumes:
- application/json
produces:
- application/json
security:
- X-API-Key: []
paths:
  /v2:
    post:
      summary: Batch search for person
      description: 'Request should be less than 256KB in size'
      consumes:
      - application/json
      parameters:
      - name: Persons
        in: body
        description: The list of persons to search
        required: true
        schema:
          $ref: '#/definitions/Persons'
      - name: X-Trace-Id
        in: header
        required: false
        type: string
        maxLength: 64
        description: >-
          A freeform field that is put into the audit log that can be used by
          the caller to identify a request. This might be something to
          indicate the person being checked (in some psuedonymous fashion),
          a unique request ID, or a trace ID from a system such as zipkin
      responses:
        '200':
          description: Returned for a normal search
          headers:
            X-Unique-Id:
              type: string
              description: >-
                Unique reference that identifies this call in the Gamstop logs.
                Should be quoted by an operator when contacting Gamstop with a
                either a technical or an application query
          schema:
            $ref: '#/definitions/Exclusions'
        '400':
```



```

        description: Returned if missing parameters or null
    '403':
        description: Returned if API key invalid, IP address not in range or rate limited
    '405':
        description: Returned for non-POST calls
securityDefinitions:
  X-API-Key:
    type: apiKey
    name: X-API-Key
    in: header
    description: long character string issued to authorised users only.
definitions:
  Persons:
    type: array
    maxLength: 1000
    items:
      $ref: '#/definitions/Person'
  Person:
    type: object
    properties:
      correlationId:
        type: string
        maxLength: 255
        description: Unique identifier must be unique within the context of this request
      firstName:
        type: string
        minLength: 1
        maxLength: 255
        x-example: Harry
        description: First name of person
      lastName:
        type: string
        minLength: 1
        maxLength: 255
        x-example: Potter
        description: Last name of person
      dateOfBirth:
        type: string
        minLength: 10
        maxLength: 10
        format: date
        x-example: '2003-04-06'
        description: Date of birth in ISO format (yyyy-mm-dd)
      email:
        type: string
        minLength: 0
        maximum: 254
        x-example: harry.potter@example.com
        description: Email address
      postcode:
        type: string
        minLength: 5
        maxLength: 10
        x-example: HP1 1AA
        description: Postcode - spaces not significant
      mobile:
        type: string
        minLength: 0
        maxLength: 14
        x-example: 07700900461
        description: >-

```

UK mobile telephone number which may include spaces, hyphens and optionally be prefixed with the international dialling code (+44, 0044, +353, 00353).

```
required:
- firstName
- lastName
- dateOfBirth
- email
- postcode
- mobile
Exclusions:
  type: array
  maxLength: 1000
  items:
    $ref: '#/definitions/Exclusion'
Exclusion:
  type: object
  properties:
    correlationId:
      type: string
      description: The optional unique identifier field for each person if present in the
request
    msRequestId:
      type: string
      description: >-
        Unique reference that identifies this record in the GAMSTOP logs.
        Should be quoted with the response header X-Unique-Id by an operator
        when contacting GAMSTOP with either a technical or an application
        query
    exclusion:
      type: string
      description: Exclusion type
      enum:
        - 'Y'
        - 'N'
        - 'P'
required:
- msRequestId
- exclusion
```