

**Charities**  
**Technical Pack**  
**How to use the Test Service**

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## **Introduction**

To get started you'll need to [register as a software developer](#). The Software Developers support team (SDST) will register your details and allocate a 4 digit vendor ID and issue the relevant credentials required to access the test services.

This document aims to help developers create software to submit online Gift Aid Claims via the XML channel.

The XML file must:

- be valid to the schemas and schema documentation that can be found in the [Gift Aid repayments RIM artefacts](#).
- be valid to the [Non form validation rules for charities online service](#).
- contain the correct IRmark - This is a security hash that must be calculated and included with every submission to HMRC. For more information on the IRmark see the technical pack: [HMRC IRmark: support for software developers](#).
- Contain valid test credentials when using the test service (and live credentials for the live service).

The XML file is submitted to HMRC through the Transaction Engine. The XML instance is sent via a HTTP 1.1 request to the Gateway server.

## Test Services

We do not provide an end to end test service so as part of your development you will have to use the 2 separate services – Local Test Service and Independent Software Vendor site which are described below:

### 1. Local Test Service (LTS)

The [Local Test Service](#) is a locally installed tool which allows you to test the claim data or ‘Body’ of the submission against the Gift Aid repayment schema and business rules (found in the [RIMArtefacts](#)) in your own environment.

*Note: When downloading the LTS you will need to use your 4 digit Vendor ID.*

When you run the Update Manager, you will see that there are 2 sets of artefacts available for download as shown in the diagram below:



- schema (v1.0) became obsolete on 5<sup>th</sup> April 2015 so you don't need to install these artefacts
- schema (v2.0) is the current version in the Live service so these are the artefacts you need to install and against.

Responses will be returned based on the outcome of your submission indicating if the file has passed or failed validation. The application **will not** perform a full validation on the GovTalkHeader.

## Namespace

Please make sure that you include the correct Namespace in your submission.

- xmlns=http://www.govtalk.gov.uk/taxation/charities/r68/2

## Gateway Time Stamp

When testing to LTS you must include and populate the <GatewayTimeStamp> element with your own timestamp in the GovTalkHeader of your file as this is used as part of the validation.

For example: <GatewayTimeStamp>2012-11-15T10:05:59.005</GatewayTimeStamp>

When sending returns to the Live service, you should either include an empty <GatewayTimeStamp> element or omit the element altogether as this will be populated by Transaction Engine.

## 2. External Test Service (ETS)

**Submission URL:** <https://test-transaction-engine.tax.service.gov.uk/submission>  
**Poll URL:** <https://test-transaction-engine.tax.service.gov.uk/poll>

In the 'Live' environment submissions are made to the Transaction Engine, using the [Transaction Engine: Document Submission Protocol](#). The ETS service replicates this for test submissions although only the 'Header' is validated.

Messages are transported across the network using the Hypertext Transport Protocol (HTTP) so applications must be capable of generating HTTP 1.1 POST requests and receiving and interpreting HTTP 1.1 response messages.

**You must** use the following test credentials when submitting to the ISV service. These should be included as follows:

```
<SenderDetails>
  <IDAuthentication>
    <SenderID>323412300001</SenderID>
    <Authentication>
      <Method>clear</Method>
      <Role>principal</Role>
      <Value>testing1</Value>
    </Authentication>
  </IDAuthentication>
</SenderDetails>
.
.
.
<Keys>
  <Key Type="CHARID">AB12345</Key>
</Keys>
```

## **Live Service**

To make a live claim, charities must sign up and enrol for the [online service](#).

The charity will receive their gateway credentials which consist of a Username and password. These are used to populate the following elements in a submission to the live Charities online service:

```
<SenderDetails>
  <IDAuthentication>
    <SenderID>Username</SenderID>
    <Authentication>
      <Method>clear</Method>
      <Role>principal</Role>
      <Value>Password</Value>
    </Authentication>
  </IDAuthentication>
</SenderDetails>
.
.
.
<Keys>
  <Key Type="CHARID">Charity's HMRC Reference</Key>
</Keys>
```

For an individual charity submission, the HMRC charities reference <HMRCref> in the R68 claim is also termed the Charity ID and is used for the <Keys> elements in the GovTalkDetails and IRheader. The same reference is used in the following places:

- /GovTalkMessage/GovtalkDetails/Keys/Key/@Type
- /IRheader/Keys/Key/@Type
- /GovTalkMessage/Body/IRenvelope/R68/Claim/HMRCref

Live submissions should also contain your 4 digit 'Vendor ID', product name and product version in the <ChannelRouting> as shown below:

```
<ChannelRouting>
  <Channel>
    <URI>Your Vendor ID</URI>
    <Product>Your Product Name</Product>
    <Version>Your Product Version</Version>
  </Channel>
</ChannelRouting>
```

## **Recognition**

If you want your product to be listed on the recognised [Charities Online: commercial software supplies](#) page then please follow the instructions in the service recognition document.

## **Other Information and Guidance**

### **GAD title - /R68/Claim/Repayment/GAD/Donor/Ttl**

- This is an optional element and can be between 1 and 4 characters in length (see page 29 of the Charities SpecDoc). Only upper and lower alpha, backslash and hyphen characters are allowed. Common problems include sending this element empty, including a space character or a full stop.

### **GAD postcode - /R68/Claim/Repayment/GAD/Donor/Postcode**

- Must be completed if the donor is a UK resident and contain a valid postcode.
- From 6<sup>th</sup> April 2015, if the donor is a Non-UK resident then the <House> element should contain as much of the address as will fit into the 40 character limit and the <Overseas> element should be included and set to 'yes'.
- [BFPO postcodes](#) need to be in the full "traditional" postcode format – there is a table available on the GOV.UK website that has the full list of conversions between the numbers and the full postcode.

### **GAD Total**

This is a mandatory monetary element and must always be to 2 decimal places i.e. 3.50, 15.00. If the value is less than £10, then only one zero is required before the decimal point i.e. 0.02, 9.99.

### **Converting a password into MD5**

1. The password string must first be made lowercase.
2. The lowercase password must then be MD5 hashed; the output of this operation must be an array of bytes.
3. The byte array must then be base64 encoded, for 'testing1' this will give the result:  
a3MweCsv60kkAgzEpXeCqQ==

### **Compression**

Compression of the claim data is supported and we recommend that compression is used for files over 1MB. The <CompressedPart> element must contain a data-stream which has been compressed using zip or gzip and base 64 encoded. There is an example of an uncompressed claim together with the zip and gzip versions in the Charities valid samples. LTS will validate files containing compressed data.

## **Known Issues**

- **Error 7026 – Incorrect error message returned**

The validation states that:

error code: 7026	Description: Exactly one of [OFF-NAME] or [OFF-ORG-NAME] must be submitted.
transactional message (en)	You must provide the name of the Authorised Official or the Corporate Trustee or both

The validation is correct but the transactional message should be:

“You must provide the name of the Authorised Official or the Corporate Trustee”

- **Error 7020**

As the condition that returns error code 7020 cannot be recreated in LTS, this message can be triggered when a submission using message class HMRC-CHAR-CLM is received containing an Agent ID with the first four characters of the Claim Number set to 7020.

	Unmatched Agent/Nominee Reference
error code	7020
Location	/R68/AgtOrNom/RefNo
Condition	For single charity claims submitted by an Agent/Nominee, the HMRC Charities Agent Reference associated with the enrolment is not the same as the Agent Reference in the body of the submission.
error message	Agent/Nominee details do not match those of the enrolled Agent/Nominee.
Error returned in	LTS and Live

## **Change History**

- V1.0 to V1.1 - Updated LTS guidance
- V1.1 to V1.2 – Government Gateway URLs changed to the Transaction Engine URLs