Customs & Excise

Web Services Specifications for C&E Enquiries

Contents

Version Control		
Version	**Date**	**Change**
1.0	01/12/2022	Initial document
2.0	30/06/2025	Updated handshake, ROS error codes and document references

Document References

Reference
1.   *"Customs and Excise REST Web Service Integration Guide"*
2.   *"Customs & Excise – Web Services Common Specification"*

Abbreviations Used in This Document

Abbreviation	Description
C&E	Customs and Excise
EORI	Economic Operators Registration and Identification
PIT	Public Interface Testing
ROS	Revenue Online Service
UCC	Union Customs Code

Introduction

This document details the ROS web services specification for Customs & Excise Enquiries.

These web services are built on industry standard technologies. They are available over the Internet as synchronous REST services and ensure the same level of privacy and security as the ROS web site.

This document covers the following Customs & Excise web services:

- Balance Enquiry

  A service which will return to the requester the available balances for a specific EORI number in the current period. The requester can request their own balance details using their own EORI number, or, if they have a valid C&E relationship with another trader, request the balance details of that trader providing this trader's EORI number.

- Exchange Rate Enquiry

  The service will return all currency exchange rate information for the month used in the request, as required for the purpose of determining the customs value of goods in accordance with UCC Code, Commission Implementing Regulation (EU) 2015/2447, Articles: 53(1)(a), 146(1)(a), 146(2), 146(3) and 146(4).

1 Digital Signatures

Any ROS web service request that either returns confidential information or accepts submission of information must be digitally signed. This must be done using a digital certificate that has been previously retrieved from ROS.

The digital signature must be applied to the message in accordance with the HTTP Signatures specification.

The digital signature ensures the integrity of the document. By signing the document, we can ensure that no malicious intruder has altered the document in any way. It can also be used for non-repudiation purposes.

If a valid digital signature is not attached, a HTTP status code of 401 (Unauthorised) will be returned. The message body will provide more information on the details of the problem.

Detailed specifications for digitally signing REST messages are described in *"Customs and Excise REST Web Service Integration Guide"* available on Revenue.ie website.

For REST GET requests the message to be signed is an empty string.

2 Web Services

The following sections describe the operation of each web service.

If successful, the appropriate message will be processed and a synchronous JSON response message will be returned.

If unsuccessful, the synchronous response will be either HTTP code or a *Validation Errors* containing the relevant ROS error code.

The full web service URL consists of environment-specific URL and the service-specific endpoint, e.g.:

```
https://www.ros.ie/customs/webservice/v1/rest/handshake
```

Environment URLs:

Live:	https://www.ros.ie/customs/webservice/v1/rest
Public Interface Test (PIT):	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest

2.1 Handshake

Purpose:	Validate connectivity and digital signature.
Http Method:	`GET`
Endpoint:	`/handshake`
Content-type	`application/json`
Parameters:	None
Successful response:	```{ "connectionStatus":"SUCCESS" }```
Unsuccessful response:	Validation errors containing ROS error code and description, e.g.: ```{ "validationErrors":[{ "code":"ROS-300-10", "description":"Issue with request's timestamp." }] }```

2.2 Balance Enquiry

Purpose:	Retrieve balance information for a specified trader (using the trader's EORI) in the current period
Http Method:	`GET`
Endpoint:	`/balance/enquiry/{eori}`
Content-type	`application/json`
Parameters:	**`eori`** : the EORI number of the trader for which the balance enquiry is been performed
Successful response format:	```{ "available_defferred_balance": number, "available_ede_balance": number, "available_cash": number, "account_holder": "string", "requester": "string", "date_processed": "yyyyMMddHHmm" }```
Sample Response	```{ "available_defferred_balance": 103586.55, "available_ede_balance": 124866.58, "available_cash": 100000.02, "account_holder": "IE0006286E", "requester": "IE4618356U", "date_processed": "202503141256" }```

Sample Errors	Functional error example:
	```{ "validationErrors":[{ "description":"The Account Holder EORI, AB123456CD, is Invalid" }] }```
	
	Technical error example:
	```{ "validationErrors":[{ "code":"ROS-300-10", "description":"Issue with request's timestamp." }] }```

2.3 Exchange Rate Enquiry

Purpose:	Retrieve exchange rate information for a particular period (month)
Http Method:	`GET`
Endpoint:	`/exchange-rate/enquiry/{period}`
Content-type	`application/json`
Parameters:	**period** : the period being requested in yyyyMM format, e.g. 202503
Successful response format:	```[\n {\n "currencyCode": "string",\n "rate": number,\n "validFrom": "yyyy-MM-dd",\n "validTo": "yyyy-MM-dd"\n }\n]```
Sample Response	```[\n {\n "currencyCode": "USD",\n "rate": 1.1234,\n "validFrom": "2025-01-01",\n "validTo": "2025-01-31"\n },\n {\n "currencyCode": "STG",\n "rate": 0.8934,\n "validFrom": "2025-01-01",\n "validTo": "2025-01-31"\n }\n]```
Sample Errors	```{\n "validationErrors":[{\n "code":"ROS-300-00",\n "description":"Unexpected error in processing the request. Please try again later."\n }]\n}```

3 ROS Error Codes

Responses containing a ROS error code are returned when an issue is encountered with the way the request was signed by the submitter or in case of issues encountered when processing the request.

Table below shows possible ROS error codes that can be returned by ROS web services.

More information on error codes and common failure scenarios is available in *"Customs & Excise – Web Services Common Specification"* document.

Error code	Error message
ROS-300-02	Issue with requests media type.
ROS-300-10	Issue with the request's timestamp.
ROS-300-20	Issue with request's digital signature.
ROS-300-30	Issue with request's digest.
ROS-300-40	Certificate holder does not have permissions to submit this request.
ROS-100-00	Unrecognised digital certificate used.
ROS-100-10	Digital certificate used to sign the request is expired.
ROS-100-20	Digital certificate used to sign the request is revoked.
ROS-100-30	Digital certificate used to sign the request is invalid.
FRQ-100-10	Request submitted too soon after the previous one.
ROS-300-00	Unexpected error in processing the request. Please try again later.