eCustoms UCC Programme PIT Connectivity and Sample Declaration Test Scenarios

Version Control		
Version	**Date**	**Change**
0.1	28/04/2020	Initial document
0.2	20/05/2020	Additional H6 Postal Declaration
0.3	26/05/2020	Included web service endpoints
0.4	02/06/2020	For new declarations the LRN must be unique.
0.5	06/07/2020	Added additional sample declarations
0.6	23/07/2020	Removing H7 sample declaration
1.1	04/05/2021	Removing sample declarations and adding H7 sample declaration
2.0	28/06/2022	Including information on AES
2.1	02/08/2022	Update details & steps on AES Submit Red

Audience

This document is for any software provider who wishes to test UCC software for Automated Import System (AIS) is and Automated Export System(AES).

Table of Contents

1. Introduction

This document assists eCustoms software developers with testing their software packages to be compatible with UCC obligations from November 2020. This document provides connectivity test scenario examples and sample declaration test scenarios that are supported by Revenue in its PIT environment to enable software developers validate and verify their connection with the PIT environment.

2. The Scope

The document specifically details the test scenarios encompassing the Connectivity Testing phase for PIT. It is recommended that that these scenarios are successfully executed before you begin testing your software in PIT.

3. Connectivity Test Prerequisites

A developer or tester who wishes to engage in Connectivity Testing in PIT must first ensure that they have:

1. Adhered to and carefully consulted the published schema, technical and functional documents that Revenue have published for AIS and/or AES on the website.
2. Notified Revenue on their intention to test through registering for access to the Revenue eCustoms PIT Support Service Desk
3. Received their ROS test digital certificate that will enable them to successfully submit messages.

Further information will be provided on the PIT Homepage.

4. Revenue On-line Service (ROS)

ROS is the method by which Revenue is delivering its interactive customer services electronically to the customer. The PIT ROS Web Services can be used to submit Customs messages to Revenue. The contents of the body of the web service message will be in XML format. If successful, the web service will verify the signature and message type and reply with synchronous response. The contents of the sync response will depend on the web service being called. It will contain an error code for requests that were not processed successfully by the web service. Response to successful aisSubmit and aesSubmit web service requests will be a Message Acknowledgement containing transaction id and status. AIS and AES will reply to successful aisSubmit and aesSubmit requests asynchronously (respectively) by placing the response in a queue (Customs Mailbox) from which the message will need to be retrieved using Mailbox Collect request. The Web Services for the Customs messages are described through WSDL files and the schemas for each message. The following are the type of message that can be forwarded through the web service:

Note: The Mailbox Acknowledgement, Mailbox Collect and Transaction ID requests apply to both AIS and AES.

- Mailbox Acknowledgement Request
- Mailbox Collect Request
- Transaction ID (Reliable Messaging)
- AIS Submit
- AES Submit

Note: For successful submission of all messages, they must be signed in a valid way with a ROS digital cert. For anyone already familiar with and using current custom web services, please be aware the ROS digital signature approach has undergone updates that went live in November 2020 for AIS. Please ensure that you are using the updated approach.

5. Test Scenarios - Connectivity Testing

Connectivity Testing consists of four test scenarios:

- Mailbox Collect Service
- Mailbox Acknowledge Request
- Transaction ID
- AISSubmit – Empty IM415
- AESSubmit – Empty IE515

Each test scenario is defined using the following structure:

Test Name	Webservice name reference.
Test Purpose	A brief outline of the purpose of the test scenario
Test Data Prerequisite	Required test data to execute the test scenario.
Test Steps	Details of the steps involved in executing the test scenario.
Expected Result	The expected successful outcome of the test scenario.
PIT URL SOAP	The SOAP Web Services endpoints can be accessed via this URL.
PIT URL REST	The REST Web Services endpoints can be accessed via this URL.

5.1 Mailbox Collect

Test Name	MailboxCollectRequest
Test Purpose	Test that Revenue will respond with the expected response messages following request to trader mailbox.
Test Data Prerequisite	Prepare a valid Mailbox Collect Request with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares a valid **MailboxCollectRequest** message. 2. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 3. The Customs Agent/Trader submits the message to the Mailbox Collect webservice. 4. Revenue responds with **Mailbox Collect Response**
Expected Result	The Customs Agent/Trader receives Mailbox Collect Response. The mailbox can be empty. This is a synchronous response.
PIT URL SOAP	https://softwaretestnextversion.ros.ie/customs/webservice/v1/soap/mailboxCollect
PIT URL REST	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest/mailboxCollect

5.2 Mailbox Acknowledge

Test Name	MailboxAcknowledgeRequest
Test Purpose	Test that Revenue will respond with the expected response messages following request to trader mailbox.
Test Data Prerequisite	Prepare a valid **Mailbox Acknowledge Request** with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares a valid **Mailbox Acknowledge Request** message with dummy mailboxID. 2. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 3. The Customs Agent/Trader submits the message to the Mailbox Acknowledge webservice. 4. Revenue responds with **Mailbox Acknowledge Response.**
Expected Result	The Customs Agent/Trader receives Mailbox Acknowledge Response stating that the dummy-mailbox-id has not been found. This is a synchronous response.
PIT URL SOAP	https://softwaretestnextversion.ros.ie/customs/webservice/v1/soap/mailboxAcknowledge
PIT URL REST	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest/mailboxAcknowledge

5.3 Transaction ID

Test Name	TransactionID
Test Purpose	Test that Revenue will respond with the expected response messages following request to Transaction ID web service.
Test Data Prerequisite	Prepare a valid **Transaction ID Request** with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares a valid **Transaction ID Request** message for minimum 1 TxId. 2. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 3. The Customs Agent/Trader submits the message to the Transaction ID webservice. 4. Revenue responds with **Transaction ID Response.**
Expected Result	The Customs Agent/Trader receives Transaction ID Response containing the requested number of transaction ids. This is a synchronous response.
PIT URL SOAP	https://softwaretestnextversion.ros.ie/customs/webservice/v1/soap/transactionID
PIT URL REST	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest/transactionID

5.4 AES Submit – Empty IE515

Test Name	AesSubmit
Test Purpose	Test that Revenue will respond with the expected response message following the submission of an Export declaration
Test Data Prerequisite	Prepare a valid IE515 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their IE515 AESSubmit message Export Declaration. 2. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 3. The Customs Agent/Trader submits the message to the AES Submit webservice. 4. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.
Expected Result	There be will an asynchronous response from AES that will be an IE917 syntax error notification. Customs Agent/Trader should be able to collect this IM917 from the mailbox and this confirms that trader's messages reach AES and AES responses reach the mailbox.
PIT URL SOAP	https://softwaretestnextversion.ros.ie/customs/webservice/v1/soap/aesSubmit
PIT URL REST	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest/aesSubmit

5.5 AIS Submit– Empty IM415

Test Identifier	AISSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an empty declaration.
Test Data Prerequisite	Prepare an empty IM415 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IM415 AISSubmit** message Import Declaration. 2. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 3. The Customs Agent/Trader submits the message to the AIS Submit webservice 4. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.
Expected Result	There be will an asynchronous response from AIS that will be an IM917 syntax error notification. Customs Agent/Trader should be able to collect this IM917 from the mailbox and this confirms that trader's messages reach AIS and AIS responses reach the mailbox.
PIT URL SOAP	https://softwaretestnextversion.ros.ie/customs/webservice/v1/soap/aisSubmit
PIT URL REST	https://softwaretestnextversion.ros.ie/customs/webservice/v1/rest/aisSubmit

6. Test Scenarios – Samples Declarations AIS

The below test scenarios are based on the samples provided on the PIT homepage.

6.1. AISSubmit – H1_Green IM415

Test Identifier	AISSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an import lodged declaration with no risk trigger in it.
Test Data Prerequisite	Prepare a valid IM415 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IM415 AISSubmit** message Import Declaration. See sample XML - H1_Green IM415 on PIT homepage.
	2. The Customs Agent/Trader must replace the existing LRN. For new declarations the LRN must be unique, non-unique LRNs will **not** be accepted by the system.
	3. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage.
	4. The Customs Agent/Trader submits the message to the AIS Submit webservice
	5. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.
Expected Result	The asynchronous response should have status ACCEPTED and include transaction ID. AIS will respond to the mailbox with:
	• Customs Declaration Acceptance – IM428
	• Release Notification – IM429

6.2. AISSubmit – H7_Green IM415

Test Identifier	AISSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an import lodged declaration with no risk trigger in it.
Test Data Prerequisite	Prepare a valid IM415 H7 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IM415 AISSubmit** message Import Declaration. See sample XML – H7_Green IM415 on PIT homepage.
	2. The Customs Agent/Trader must replace the existing LRN. For new declarations the LRN must be unique, non-unique LRNs will **not** be accepted by the system.
	3. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage.
	4. The Customs Agent/Trader submits the message to the AIS Submit webservice
	5. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.

Expected Result	The synchronous response should have status ACCEPTED and include transaction ID. AIS will respond to the mailbox with: • Customs Declaration Acceptance – IM428 • Release Notification – IM429

7. Test Scenarios – Samples Declarations AES

7.1. AESSubmit – Green IE515 (Office of Export)

Test Identifier	AESSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an Export declaration with no risk trigger in it.
Test Data Prerequisite	Prepare a valid IE515 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IE515 AESSubmit** message Export Declaration. See sample XML – Green IE515 on PIT homepage. 2. The Customs Agent/Trader must replace the existing LRN. For new declarations the LRN must be unique, non-unique LRNs will **not** be accepted by the system. 3. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 4. The Customs Agent/Trader submits the message to the AES Submit webservice 5. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.
Expected Result	The synchronous response should have status ACCEPTED and include a transaction ID. AES will respond to the mailbox with: • Export MRN Allocated – IE528 • Release For Export – IE529

7.2. AESSubmit – Red IE515 (Office of Export)

Test Identifier	AESSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an Export declaration with a red risk trigger in it.
Test Data Prerequisite	Prepare a valid IE515 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IE515 AESSubmit** message Export Declaration. See sample XML – Red IE515 on PIT homepage. 2. The Customs Agent/Trader must replace the existing LRN. For new declarations the LRN must be unique, non-unique LRNs will **not** be accepted by the system. As well in the case of getting a RED risk response, the Customs Agent/Trader must have their "Country of Origin" Field set as "AT", to test the RED risk response. 3. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 4. The Customs Agent/Trader submits the message to the AES Submit webservice 5. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.

Expected Result	The synchronous response should have status ACCEPTED and include transaction ID. AES will respond to the mailbox with: • Export MRN Allocated – IE528 • Export Control Decision Notification– IE560

7.3. AESSubmit –IE507 (Office of Exit)

Test Identifier	AESSubmit
Test Purpose	Test that Revenue will respond with the expected response messages following submission of an Arrival at Exit Message.
Test Data Prerequisite	Prepare a valid IE507 message with a valid ROS digital signature.
Test Steps	1. The Customs Agent/Trader prepares their **IE507 AESSubmit** message Arrival at Exit. See sample XML – IE507 on PIT homepage. 2. The Customs Agent/Trader must reference an MRN in their IE507 message that already exists within PIT . This can be done by creating a PIT Service desk ticket requesting to test the IE507 message. (Details to follow shortly before the AES PIT release) 3. The Customs Agent/Trader correctly signs the request with their digicert. Further details found on the PIT homepage. 4. The Customs Agent/Trader submits the message to the AES Submit webservice 5. Revenue returns the response messages to the customs mailbox, these are listed below in Expected Results.
Expected Result	The synchronous response should have status ACCEPTED and include transaction ID. AES will respond to the mailbox with: • Exit Release Notification– IE525