Test Design Specifications for Economic Operator Conformance Test Scenarios for Release 2 & Release 3

ICS2 STI-STP

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Changes to this document are summarized in the following table in reverse chronological order (latest version first).

Version	Date	Description	Action[1]	Section
2.30	11/10/2022	Submitted for Review (SfR) to DG TAXUD. ICS2-4945: EO-CTS should include IE3F10 & IE3F11 Business Scenarios	R	5.1.2, 5.3, 5.3.1, 5.3.2, 5.4, 5.4.3,
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[1] Action: I=Insert R=Replace

Version	Date	Description	Action[1]	Section
2.10	01/04/2022	Implementing **ICS2-3257, ICS2-3416, ICS2-3426, ICS2-3439, ICS2-3442, ICS2-4309.** Submitted for Review (SfR) to DG TAXUD.	I/R	4.2.10.6, 4.2.10.7, 4.2.10.8, 5, 5.3, 5.3.1, 5.4, 5.4.1, 5.4.3.4, 5.4.2.1, 5.4.1.1, 5.4.3.5, 5.5, 5.5.1.1, 5.5.1.2, 5.5.1.3, 5.5.1.4, 5.6, 5.6.1.
2.00	23/02/2022	Submitted for Acceptance (SfA) to DG TAXUD.	R	1.5
1.90	17/02/2022	Implementing **ICS2-4365**: Express Business Scenarios 3 updated. As per corrections in the EO CTC document: Reference documents updated; Definition of Business Scenarios updated; IE3Q02 structure updated to the latest version 2.01 for the Postal 3 scenario. Submitted for Acceptance for Review Only (SfA) to DG TAXUD.	R	5.2.3 1.5 5.1, 5.3 5.1.2
1.80	20/01/2022	Implemented Review Cycle comments. Submitted for Acceptance (SfA) to DG TAXUD.	I/R	-
1.70	05/01/2022	Implementing **ICS2-3211 (RfC57118)**: Update Approach Refinements. Implementing **ICS2-3277 (RfC57139)**: Update Test Scenarios Coverage, New test scenario: ICS2-CTS-EO-25. Implementing **ICS2-3287 (RfC53147)**: New business scenarios for Person Notifying the Arrival. Update Approach Refinements. Implementing **ICS2-3251 (RfC53637)**: Align description with the Business scenarios for Postal and Express roles. Submitted for Review (SfR) to DG TAXUD.	I/R	3 2 4.2.12 5.6 3 5.1.1, 5.1.2, 5.2.3
1.60	31/08/2021	Implemented Review Cycle comments. Submitted for Acceptance (SfA) to DG TAXUD.	R	-
1.50	19/08/2021	Document aligned with QTM524 1.5.0.0 scope following amendment 2. Submitted for Review (SfR) to DG TAXUD.	R	1.5
1.40	29/04/2021	Implemented Review Cycle comments. Submitted for Acceptance (SfA) to DG TAXUD.	I/R	All

Version	Date	Description	Action[1]	Section
1.30	19/04/2021	Implementing **RfC51195** Sections 5.1.1, 5.1.2, 5.3.1, 5.3.2, 5.3.3, 5.4: Update descriptions, attachments and flows. Implementing **RfC48085** Section 5.3 updated; Section 5.4 added section; Section 5.5 and 5.6 updated. **RfC44205** and **RfC43080** included in the R2 business flows. Submitted for Review (SfR) to DG TAXUD.	I/R	5.1.1, 5.1.2, 5.2.1, 5.2.2, 5.2.3, 5.3 5.3, 5.4, 5.5 4.2.12
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1.10	15/02/2021	Re-Submitted for Acceptance (SfA) to DG TAXUD.	I/R	All
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0.01	08/12/2020	Document created by CUST-DEV3. First draft. Submitted for Information (SfI) to DG TAXUD.	I/R	All

Configuration management: document location

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1 INTRODUCTION

1.1 PURPOSE

This document defines the test scenarios which are necessary to perform Conformance Testing for the Release 2 & 3 on the side of Economic Operators (i.e. Traders).

During Conformance Testing on the side of Economic Operators, it is verified that an EO System can connect to ICS2 without disturbing the correct functionality of the system. In particular, conformity against common functional system specifications is tested, as well as connectivity is tested in order to validate that there is no issue with communication between an EO System and ICS2.

1.2 SCOPE

According to ICS2 Master Test Plan [**R01**], during Economic Operator Conformance Testing, the implementation of S2S interfaces between ICS2 (in particular STI) and EO Systems is tested. This includes:

- Connectivity Testing:
    - Compliance with AS4 interface profile, as defined in ICS2 ICD [**R02**];
    - Proper use of Digital Certificates registered in UUM&DS and included encoded in messages.

- Functional Testing:
    - Semantic validation of ICS2 messages delivered by Trader;
    - Testing of STI notifications dispatched towards Traders;
    - Trader Responses to ICS2 requests coming from STI.

The ICS2 (STI) provides the interface to support information exchanges between the traders and the Customs Authorities in the scope of ICS2 system. In the case of the System-to-system interaction as described in the current document, the EO system fulfils requirements to lodge full or partial ENS filings, respond to requests for missing or additional information from National Customs Authorities and receive notifications that they have requested or that are required to be provided in response to their submitted ENS filings.

1.3 TARGET AUDIENCE

This document is addressed to parties who will participate in ICS2 Economic Operator Conformance Testing for Release 2 & 3:

- DG TAXUD Project team;
- DG TAXUD Development contractors;
- ITSM3 TES;
- ITSM3 OPS;
- QA4;
- Traders and Traders staff;
- Member States Helpdesk staff supporting EO conformance campaigns.

1.4 STRUCTURE

The present document contains the following chapters:

- **Chapter 1 - Introduction**: describes the scope and objectives of the document.
- **Chapter 2 - Test Scenarios Coverage:** explains the connection between test scenarios and system specifications.
- **Chapter 3 - Approach Refinements:** provides additional information on the test approach.
- **Chapter 4 - Test Scenarios:** provides information on the test scenarios;
- **Chapter 5 - Business Scenarios:** provides information on the business scenarios.

1.5   REFERENCE DOCUMENTS

Ref.	Title	Reference	Version	Date
R01	ICS2 Master Test Plan	ICS2-MTP	3.20	18/02/2022
R02	ICS2 Interface Control Document	CD3-ICS2-HTI-Interface Control Document	3.30	02/03/2022
R03	ICS2 Harmonized Trader Interface Specifications	ICS2-HTI	2.00	30/07/2021
R04	ICS2 HTI BPM L4 Business Process Description	ICS2-HTI-BPML4	2.01	23/05/2022
R05	ICS2 HTI Definitions	ICS2-HTI-Definitions	1.11	16/03/2020
R06	eDelivery AS4 conformant solutions	eDelivery AS4 conformant solutions[2]	N/A	N/A

Table 1: Reference documents

1.6   APPLICABLE DOCUMENTS

Ref.	Title	Reference	Version	Date
A01	Framework Contract	TAXUD/2021/CC/162	N/A	24/06/2021
A02	Specific Contract n° 6	TAXUD/2022/DE/119	N/A	22/04/2022

Table 2: Applicable documents

1.7   ABBREVIATIONS AND ACRONYMS

For a better understanding of the present document, the following table provides a list of the principal abbreviations and acronyms used.

Abbreviation/Acronym	Definition
AEO	Authorised Economic Operator
AEOS	Authorised Economic Operator authorised for security and safety.
AirPLA	Air pre-loading risk analysis
AS4	Applicability Statement 4
BAS	Business Activity Service
BPM	Business Process Model
CFSS	Common Functional System Specifications
COFE	Customs Office of First Entry

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[2] https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eDelivery+AS4+conformant+solutions

Abbreviation/Acronym	Definition
DG TAXUD	Directorate-General Taxation and Customs Union
ENS	Entry Summary Declaration
EO	Economic Operator
STP	Specific Trader Portal
ICD	Interface Control Document
ICS2	Import Control System 2
ITSM	IT Service Management
MRN	Master Reference Number
MTP	Master Test Plan
NVOCC	Non-Vessel Operating Common Carrier
OPS	Operations
PLACI	Pre-Loading Air Cargo Information
QA4/QAC	Quality Assurance Contractor
SC	Specific Contract
S2S	System to System
SfA	Sent for Acceptance
SfI	Sent for Information
SfR	Sent for Review
SOFT-DEV	
STI	Shared Trader Interface
TAPAS	DG TAXUD AS4 Access Point
TES	Trans-European System
TDS-CTS	Test Design Specifications for Conformance Test Scenarios
UUM&DS	Uniform User Management & Digital Signatures

Table 3: Abbreviations and acronyms

1.8 DEFINITIONS

General ICS2 definitions are available in [**R05**]. Additional definitions can be found below.

Term	Definition
Access Right or Permission	An operation or action allowed to an actor.
Actor	An actor is defined as an organizational entity who is capable of performing behaviour. Examples of actors are humans, departments, and business units. An actor (e.g. Responsible Member State, Involved Member State, EC) performs the behaviour assigned to (one or more) business roles.
Person Filing	Person filing means any person that submits to the customs authority ENS filing in its complete or partial content and other notifications in the prescribed form and manner. This person can be any person that issues bill of lading or air waybill in any form and can be either carrier, NVOCC, freight forwarder, or any person identified by the legal provisions obliged to submit required particulars of ENS to the customs and can include postal operator, consignee stipulated in the lowest bill of lading. Person filing also includes representative of any of the persons mentioned above that submits

Term	Definition
	the ENS Filing in its complete or partial content to the customs authority on behalf of the person that it is representing. *Source: ICS2-CFSS-Definitions [R05].*
Carrier	Carrier means in the context of entry, the person who brings the goods, or who assumes responsibility for the carriage of the goods, into the customs territory of the Union. However, (i) in the case of combined transportation, "carrier" means the person who operates the means of transport which, once brought into the customs territory of the Union, moves by itself as an active means of transport; (ii) in the case of maritime or air traffic under a vessel- sharing or contracting arrangement, "carrier" means the person who concludes a contract and issues a bill of lading or air waybill for the actual carriage of the goods into the customs territory of the Union. *Source: ICS2-CFSS-Definitions [R05].*
Role	A role is defined as the responsibility for performing specific behaviour, to which an actor can be assigned.
Test Case	A test case is a set of steps applied to transit the system from a known initial state to an expected final state. It is characterised by: • An identifier that uniquely identifies the test case; • A short description of its purpose; • One or several actors performing the actions on the system; • A set of pre-requisites describing the initial state of the system; • A set of steps defining the actions performed by the actors and their expected results. Steps may describe input values and expected output values if applicable for the tested feature; • A set of post-conditions describing the state in which the system is expected to be after the execution of the steps; • A set of pass criteria defining the conditions under which the test can be considered as passed; A test scenario is realised by one or several test cases without an explicit mapping between the test cases and the test scenario guidelines
Test Scenario	A test scenario is a set of guidelines enabling to assess the testing coverage of a feature against its specifications. It is characterised by: • An identifier that uniquely identifies the test scenario; • A description of the covered feature. A set of guidelines (e.g. a high-level action performed on an abstract set of data) that can be ordered if the tested feature requires it.

Table 4: Definitions

2 TEST SCENARIOS COVERAGE

Functional Test Scenarios cover the interactions between the Trader role and STI, as defined in business specifications BPM-L4 [**R04**]. The Trader role could be a Person filing (in business meaning could be Carrier, Representative, House filer), Carrier (if different from the Person filing), a Notify party and a Person notifying the arrival.

The applicable scope is Release 2 & 3.

The traceability matrix between business processes and test scenarios is listed below:

CTS\Trader role	L4-ICS2-01	L4-ICS2-03	L4-ICS2-03-01	L4-ICS2-06-01	L4-ICS2-07	L4-ICS2-08	Connectivity Testing	L4-ICS2-04	L4-ICS2-02-01	L4-ICS2-13
ICS2-CTS-EO-1							X			
ICS2-CTS-EO-2	X									
ICS2-CTS-EO-3	X									
ICS2-CTS-EO-4	X									
ICS2-CTS-EO-5					X					
ICS2-CTS-EO-6					X					
ICS2-CTS-EO-7					X					
ICS2-CTS-EO-8						X				
ICS2-CTS-EO-9								X		
ICS2-CTS-EO-10								X		
ICS2-CTS-EO-12		X								
ICS2-CTS-EO-13		X								
ICS2-CTS-EO-14				X						
ICS2-CTS-EO-15								X		
ICS2-CTS-EO-15.1								X		
ICS2-CTS-EO-16								X		
ICS2-CTS-EO-17									X	
ICS2-CTS-EO-18									X	
ICS2-CTS-EO-22								X		
ICS2-CTS-EO-23			X							
ICS2-CTS-EO-24			X							
ICS2-CTS-EO-19			X							
ICS2-CTS-EO-20			X							
ICS2-CTS-EO-21					X					
ICS2-CTS-EO-25										X

Table 5: Traceability matrix between business processes and test scenarios.

The traceability matrix between trader's role and test scenarios is listed below:

CTS\Trader role	Person filing - Postal Operator	Person filing - Express Operator	Person filing - Carrier	Person filing - House filer	Carrier (receiving notifications)	Notify Party	Person notifying the arrival	Person that has not yet filed
ICS2-CTS-EO-1	X	X	X	X	X	X	X	
ICS2-CTS-EO-2	X	X	X	X				
ICS2-CTS-EO-3	X	X	X	X				
ICS2-CTS-EO-4	X	X	X	X				
ICS2-CTS-EO-5	X	X	X	X				
ICS2-CTS-EO-6	X	X	X	X				
ICS2-CTS-EO-7	X	X	X	X				
ICS2-CTS-EO-8	X	X	X	X				
ICS2-CTS-EO-9							X	
ICS2-CTS-EO-10							X	
ICS2-CTS-EO-12	X	X	X	X				
ICS2-CTS-EO-13	X	X	X	X				
ICS2-CTS-EO-14	X	X	X	X				
ICS2-CTS-EO-15							X	
ICS2-CTS-EO-15.1						X		
ICS2-CTS-EO-16	X	X	X	X				
ICS2-CTS-EO-17	X	X	X	X				
ICS2-CTS-EO-18								X
ICS2-CTS-EO-22						X		
ICS2-CTS-EO-23					X			
ICS2-CTS-EO-24					X			
ICS2-CTS-EO-19	X	X	X	X				
ICS2-CTS-EO-20	X	X	X	X				
ICS2-CTS-EO-21	X	X	X	X				
ICS2-CTS-EO-25	X	X	X	X				

Table 6: Traceability matrix between trader's role and test scenarios.

3 APPROACH REFINEMENTS

The approach to verify the conformance of the EO systems will be based on test scenarios and business scenarios. Those will be triggered from the ICS2 STI STP conformance campaign screen(s), dedicated solely for the purpose of an EO user to configure and execute the conformance test campaigns.

Each *Test scenario* (section 3.1) defined in this document aims at covering a simple two-way message exchange between the EO systems and ICS2. A pre-defined *Business scenario* (section 3.2) combines a number of steps to cover a specific functionality of the system.

The role that the trader system plays in the interaction with ICS2 will define which business scenarios must be executed to pass conformance. The different roles are:
1) Postal Operators;
2) Express Operators;
3) Notify Party;
4) Person Notifying the arrival;
5) Carriers;
6) House Filers.

The first step in the ICS2 STI STP self-conformance test configuration screen is for an EO user to provide the configuration field Sender Party ID. The second step is to register a new Test Campaign.

When registering a new Test Campaign, the EO must select its role. Depending on this selection, a pre-defined set of business scenarios will be proposed to be executed.

Alternatively, for Carriers and House Filers, a list with the ENS Filings available for conformance will be displayed. The next step for them will be to select which types of filings are applicable to them and a set of business scenarios corresponding to those ENS Filings will be proposed to be executed.

To finish the configuration, the EO must provide an identification number for the list of messages requiring filling an identifier for the selected Business role and scenario.

Most of the tests of the EO Business Scenarios are triggered by the EO with a successful Registration of an ENS Filing and reception of the MRN, via the IE3R01 message. However, there are some exceptions for which the initial ENS Registration to start the flow must be mocked. For these scenarios, *launch test* action will be available in the Test Campaign Business Scenario screen.

The scenarios where the EO has a passive role and will only receive messages are the following ones:

- "Notify party" Business Scenario;
- "House Filer" F14 ENS Pending notification Business Scenario;
- "House Filer" F15 ENS Pending notification Business Scenario;
- "House Filer" F16 ENS Pending notification Business Scenario;
- "House Filer" F17 ENS Pending notification Business Scenario;
- "House Filer" F22 ENS Pending notification Business Scenario;
- "House Filer" F26 ENS Pending notification Business Scenario.

For the "Person notifying the Arrival" Business Scenario, the initial ENS Registration must be mocked as well and, additionally, the MRN generated by this registration will be communicated to EO, displayed as identifier of the message in the Message Flow screen, so it can be used by the EO to submit the Arrival Notification.

3.1 TEST SCENARIOS

The test scenarios defined in the context of this document will be used in order to prove the conformity of trader systems with the related specifications. Specifically, the scenarios cover the

ability of a trader system to exchange messages with ICS2 as specified in ICS2 BPM L4 Process Description [R04] and the ICS2 interface control document [R02]. The focus of the scenarios is on the ability of trader systems to send and receive the specified messages and not on the manual or automated processing of data. Nonetheless, background information of what trader systems are performing before or after the exchange of a message is included in order to improve the readability of the scenarios.

At the time of EO conformance testing, Validation BAS is considered as a tested service; this means that any semantic error would fulfil conformance testing needs. Functional test scenarios ICS2-CTS-EO-4 and ICS2-CTS-EO-7 described below in section 4.1, are included for information reasons since they are not part of the business scenarios but can occur during the testing.

It is important to note that Traders will use their actual systems during EO conformance testing. Therefore, non-existing Member States, not-existing goods codes or other non-existing data must be avoided, as this will complicate testing on their behalf. Thus, whilst conformance testing, no syntactical errors will be tested.

For each test scenario the following information is provided:
1. **Test scenario ID**: The unique ID assigned to the test scenario;
2. **Sequence Diagram:** A diagram depicting the message exchange between trader system and ICS2;
3. **Test Category:** Functional for the Conformance Scenarios that cover functional specifications and Technical for any other type of scenarios;
4. **Test Purpose:** The functionality that needs to be verified during the Conformance Testing;
5. **Trader role:** The role that the trader system plays in each scenario: Person filing (in business meaning could be Carrier, Representative, House filer), Carrier (if different from the Person filing), a Notify party and a Person notifying the arrival;
6. **Input:** The trigger messages received from a trader system or ICS2 that initiate the execution of each scenario;
7. **Prerequisites:** Any pre-conditions that need to be fulfilled prior to the execution of each scenario;
8. **Scenario Description:** Description of the messages exchanged, and a high-level description of the procedure executed after a message receipt;
9. **Scenario Expected Results:** The expected outcome/state after the execution of the steps detailed in the Scenario Description section;
10. **Integration needs**: The external systems that shall be available for the scenario to be executed.

3.2   BUSINESS SCENARIOS

In addition to the test scenarios, business scenarios (a pre-defined sequence of test scenarios) will be used for the validation of the system. Each of these business scenarios, documented in Section 4.2.12, covers a specific functionality of the system.

For Postal Operators, Express Operators and Notify parties, the following information is provided for each business scenario:
1. **Business scenario title:** The title of the business scenario that includes the business case, the combination of filing types used and any characteristics of the scenario that it covers;
2. **Summary:** A summary of the business scenario with the roles, messages and the main business logic that each business scenario covers;
3. **Attachment:** The flow of messages exchanged between the different systems, the business logic and rules that they cover;
4. **Flows – EO-CTS mapping:** The flow of messages between ICS2 and the trader systems and the mapping with the corresponding EO-CTS.

For Carriers and House filers, as not all types of filings are applicable for each, a list of business cases applicable per ENS filing to test the complete functionality is described; and for each ENS filing, there is an attachment with all the pertinent business scenarios, describing the flow of messages exchanged between the different systems.

3.3 IT SERVICE PROVIDER

An IT service provider will support the business of many economic operators. To be able to support them, the ITSP must register a test campaign for each business role he will perform, and for the ENS filing types planned to be submitted if the selected business role is Carrier or House filer; and run the campaign accordingly and successfully.

4 TEST SCENARIOS

4.1 Connectivity Test Scenarios

4.1.1 ICS2-CTS-EO-1: AS4 Message Connectivity

AS4 Message Connectivity	
ID	**ICS2-CTS-EO-1**
Sequence Diagram	N/A
Test Category	Connectivity
Optionality	M
Test Purpose	Verify successful connectivity between TAPAS and EO System AS4 Access Points in both directions.
Trader Role	Postal Operator, Express Operator, Carrier, House filer, Notify Party, Person notifying the arrival.
Input	- AS4 message conforming to ICS2 ICD [**R02**] with the following test specific values: - eb:Action: http://docs.oasis-open.org/ebxml-msg/ebms/ v3.0/ns/core/200704/test - eb:Service: http://docs.oasis-open.org/ebxml-msg/ebms/ v3.0/ns/core/200704/service - Empty message payload.
Prerequisites	- EO System is an eDelivery conformant access point [**R06**]; - EO System is properly registered in UUM&DS; - EO System is properly configured with the AS4 PModes as defined in ICS2 ICD [**R02**].
Scenario Description	1. EO System sends a test message to TAPAS. The TAPAS system verifies the digital signature using UUM&DS and automatically replies with an AS4 signal message allowing the EO system to verify the correct connection;
Scenario Expected Results	Connectivity test request message is received by TAPAS;
Integration Needs	- UUM&DS; - TAPAS.

*Table 7: Description of test scenario **ICS2-CTS-EO-1***

4.2 Functional Test Scenarios

All "XX" references in IE3FXX or IE3AXX messages[3] in the following test scenarios include all applicable messages for Release 2 & 3. For each different business role below (with Bold), the following messages are supported by the relevant Economic Operator type (Postal Operator, Express Operator, Carrier, House filer, Notify Party and Person notifying the arrival):

1. **Rail Cargo (general Carriers)**: IE3F41 (Partial dataset – Rail master transport document information), IE3F51 (Rail mode of transport);

2. **Road Cargo (general Carriers)**: IE3F40 (Partial dataset – Road Master bill of lading), IE3F50 (Road mode of transport);

3. **Maritime Cargo (general Carriers)**: IE3F12 (Partial dataset – Master bill of lading only), IE3F13 (Partial dataset – Straight bill of lading only), IE3F45 (Partial dataset – Sea and inland waterways);

4. **Air Cargo (general Carriers)**: IE3F20 (Complete dataset lodged pre-loading), IE3F21 (Partial dataset – Master air waybill lodged pre-arrival), , IE3F27 (Complete dataset lodged pre-arrival), IE3F28 (Complete dataset lodged pre-loading – Direct air waybill), IE3F29 (Complete dataset lodged pre-arrival – Direct air waybill), IE3F42 (Partial dataset - Master air waybill containing necessary postal air waybill information lodged in accordance with the time-limits applicable for the mode of transport concerned);

5. **Maritime Cargo (general House filers)**: IE3F14 (Partial dataset – House bill of lading only), IE3F15 (Partial dataset – House bill of lading with the necessary information from consignee), IE3F16 (Partial dataset – Necessary information required to be   provided by consignee at the lowest level of transport contract (straight bill or the lowest   house bill of lading)), IE3F17 (Partial dataset – Necessary information required to be provided by consignee at the lowest level of transport contract (straight bill));

6. **Air Cargo (general House filers)**: IE3F22 (Partial dataset – House air waybill lodged pre-arrival), IE3F23 (Partial dataset — Minimum dataset lodged pre- loading without master air waybill reference number), IE3F24 (Partial dataset — Minimum dataset lodged pre- loading with master air waybill reference number), IE3F25 (Partial dataset — Master air waybill reference number lodged pre-loading), IE3F26 (Partial dataset — Minimum dataset lodged pre- loading and containing additional house air waybill information);

7. **Express consignments**: IE3F30 (Complete dataset lodged pre-arrival), IE3F31 (Complete dataset lodged pre-arrival by the express operator), IE3F32 (Partial dataset — Minimum dataset lodged pre-loading), IE3F33 (Partial dataset – House air waybill lodged pre-arrival by a person), IE3F34 (Complete dataset lodged pre-arrival);

8. **Postal consignments**: IE3F43 (Partial dataset — Minimum dataset lodged pre- loading), IE3F44 (Partial dataset — Receptacle identification number lodged pre-loading).

4.2.1 ICS2-CTS-EO-2: Register ENS Filing

Register ENS Filing (Successful Registration)	
ID	**ICS2-CTS-EO-2**

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[3] Please note that test messages depend on the Mode of transport of each Economic Operator. For example, a Postal Operator will only send F43 and F44 message types, while an Express Integrator will not send those message types, but only IE3F30, IE3F32. An Air Carrier will send F42 message types.

Register ENS Filing (Successful Registration)	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful registration of IE3FXX ENS Filing and creation of MRN which is returned to EO System.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• Valid IE3FXX ENS Filing with valid data.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed.
Scenario Description	1. EO System sends an ENS Filing (IE3FXX) to STI; 2. Verify that ENS Registration Response (IE3R01) is successfully received by the EO System for IE3FXX ENS Filing of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3R01 ENS registration response, and the MRN assigned to it, is successfully received by the EO System. • The EO System acknowledged the reception of the registration response by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS.

*Table 8: Description of test scenario **ICS2-CTS-EO-2***

4.2.2 ICS2-CTS-EO-3: Register ENS Filing (Semantical Validation Not Successful)

This test scenario is not part of the business scenarios, but it is included to be considered in case there are errors generated during the execution of the business scenarios. In case of errors, the ENS filings will be rejected.

Register ENS Filing (Semantical Validation Not Successful)	
ID	ICS2-CTS-EO-3

Register ENS Filing (Semantical Validation Not Successful)	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify that one semantical error in IE3FXX ENS Filing returns IE3N99 Error Notification to EO System.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• One IE3FXX ENS Filing with invalid data, which is expected to fail semantical validation.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed.
Scenario Description	1. EO System sends an ENS Filing (IE3FXX) with one semantical error to ICS2 system; 2. Verify that Error Notification (IE3N99) is received by the EO System for IE3FXX ENS Filing of step 1.
Scenario Expected Results	• IE3N99 error notification is successfully received by the EO system; • Error described in IE3N99 message is indeed the expected error according to input IE3FXX message. • The EO System acknowledged the reception of the Error Notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 9: Description of test scenario **ICS2-CTS-EO-3***

4.2.3 ICS2-CTS-EO-4: Register ENS Filing (ENS Lifecycle Validation Error)

This test scenario is not part of the business scenarios, but it is included to be considered in case there are errors generated during the execution of the business scenarios. In case of errors, the ENS filings will be rejected.

Register ENS Filing (ENS Lifecycle Validation Error)	
ID	**ICS2-CTS-EO-4**

Register ENS Filing (ENS Lifecycle Validation Error)	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify that one ENS Lifecycle Validation Error in IE3FXX ENS Filing returns IE3N01 ENS lifecycle validation error notification to EO System.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• One IE3FXX ENS Filing, which is expected to fail ENS Lifecycle Validation.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed.
Scenario Description	1. EO System sends an ENS Filing (IE3FXX) which is expected to fail ENS Lifecycle Validation; 2. Verify that ENS Lifecycle Validation Error (IE3N01) is received by the EO System for IE3FXX ENS Filing of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3N01 ENS lifecycle validation error notification is successfully received by the EO System; • Error described in IE3N01 message is indeed the expected error according to input IE3FXX message. • The EO System acknowledged the reception of the ENS Lifecycle Validation Error by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 10: Description of test scenario **ICS2-CTS-EO-4***

4.2.4   ICS2-CTS-EO-5: Amend ENS Filing

Amend ENS Filing (Successful Amendment)	
ID	**ICS2-CTS-EO-5**

Amend ENS Filing (Successful Amendment)	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify acceptance of IE3AXX ENS Filing amendment by ICS2 system.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• Valid IE3AXX ENS Filing amendment with valid data.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario ICS2-CTS-EO-2.
Scenario Description	1. EO System sends an ENS Filing amendment (IE3AXX) to ICS2 system; 2. Verify that Accept ENS amendment response (IE3N10) is received by the EO System for IE3AXX ENS Filing amendment of step 1.
Scenario Expected Results	• IE3N10 Accept ENS amendment response is successfully received by the EO System, and that EO System confirms the reception of the response. • The EO System acknowledged the reception of the Accept ENS amendment response by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 11: Description of test scenario **ICS2-CTS-EO-5***

4.2.5 ICS2-CTS-EO-6: Amend ENS Filing (Semantical Validation Not Successful)

This test scenario is not part of the business scenarios, but it is included to be considered in case there are errors generated during the execution of the business scenarios. In case of errors, the ENS filings will be rejected.

Amend ENS Filing (Semantical Validation Not Successful)	
ID	**ICS2-CTS-EO-6**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify that one semantical error in IE3AXX ENS Filing amendment returns IE3N99 Error Notification to EO System.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• One IE3AXX ENS Filing amendment with invalid data, which is expected to fail semantical validation.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario ICS2-CTS-EO-2.
Scenario Description	1. EO System sends an ENS Filing amendment (IE3AXX) with one semantical error to ICS2 system; 2. Verify that Error Notification (IE3N99) is received by the EO System for IE3AXX ENS Filing amendment of step 1, and that EO System confirms the reception of the response. 3. The EO System acknowledged the reception of the Error Notification by a correctly signed AS4 receipt message.
Scenario Expected Results	• IE3N99 error notification is successfully received by the EO System; • Error described in IE3N99 message is indeed the expected error according to input IE3AXX message.
Integration Needs	• UUM&DS; • TAPAS

*Table 12: Description of test scenario **ICS2-CTS-EO-6***

4.2.6 ICS2-CTS-EO-7: Amend ENS Filing (ENS Lifecycle Validation Error)

This test scenario is not part of the business scenarios, but it is included to be considered in case there are errors generated during the execution of the business scenarios. In case of errors, the ENS filings will be rejected.

Amend ENS Filing (ENS Lifecycle Validation Error)	
ID	**ICS2-CTS-EO-7**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify that one ENS Lifecycle Validation Error in IE3AXX ENS Filing amendment returns IE3N01 ENS lifecycle validation error notification.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• One IE3AXX ENS Filing amendment, which is expected to fail ENS Lifecycle Validation.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario ICS2-CTS-EO-2.
Scenario Description	1. EO System sends an ENS Filing amendment (IE3AXX) which is expected to fail ENS Lifecycle Validation to ICS2 system; 2. Verify that ENS Lifecycle Validation Error Notification (IE3N01) is successfully received by the EO System for IE3AXX ENS Filing amendment of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3N01 ENS lifecycle validation error notification is successfully received by the EO System; • Error described in IE3N01 message is indeed the expected error according to input IE3AXX message. • The EO System acknowledged the reception of the ENS Lifecycle Validation Error Notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 13: Description of test scenario **ICS2-CTS-EO-7***

4.2.7 ICS2-CTS-EO-8: Invalidate ENS Filing

Invalidate ENS Filing	
ID	**ICS2-CTS-EO-8**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful invalidation of IE3FXX ENS Filing.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• MRN of already registered IE3FXX ENS Filing for the particular EO.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario ICS2-CTS-EO-2.
Scenario Description	1. EO System sends ENS invalidation request for ENS Filing of known MRN; 2. Verify that ENS invalidation response (IE3R07) is successfully received by the EO System for ENS invalidation request of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3R07 accept ENS invalidation response is successfully received by the EO System. • The EO System acknowledged the reception of the ENS invalidation response by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 14: Description of test scenario **ICS2-CTS-EO-8***

4.2.8 ICS2-CTS-EO-9: Notify arrival of the means of transport

Register arrival notification (Successful Registration)	
ID	**ICS2-CTS-EO-9**

Register arrival notification (Successful Registration)	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful registration of valid arrival notification and creation of MRN which is allocated to the arrival notification. The arrival notification obtains the state 'Registered'.
Trader Role	Person notifying the arrival
Input	• Valid IE3N06 message with valid data.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed.
Scenario Description	1. EO System sends an arrival notification (IE3N06) to ICS2 system; 2. Verify that arrival registration Response (IE3R04) is successfully received by the EO System for arrival notification of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3R04 ENS registration response, and the MRN assigned to it, is successfully received by the EO System. • The EO System acknowledged the reception of the Arrival registration Response by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 15: Description of test scenario **ICS2-CTS-EO-9***

4.2.9 ICS2-CTS-EO-10: Notify arrival of the means of transport (Semantical Validation Not Successful)

This test scenario is not part of the business scenarios, but it is included to be considered in case there are errors generated during the execution of the business scenarios. In case of errors, the ENS filings will be rejected.

Register arrival notification (Semantical Validation Not Successful)	
ID	**ICS2-CTS-EO-10**

	Register arrival notification (Semantical Validation Not Successful)
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify that one semantical error in arrival notification (IE3N06) returns IE3N99 Error Notification to EO System.
Trader Role	Person notifying the arrival
Input	• One IE3N06 arrival notification with invalid data, which is expected to fail semantical validation.
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed.
Scenario Description	1. EO System sends an IE3N06 arrival notification with one semantical error to ICS2 system; 2. Verify that Error Notification (IE3N99) is successfully received by the EO System for IE3N06 arrival notification of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3N99 error notification is successfully received by the EO System; • Error described in IE3N99 message is indeed the expected error according to input IE3N06 message. • The EO System acknowledged the reception of the Error Notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 16: Description of test scenario **ICS2-CTS-EO-10***

4.2.10 Receive notifications from STI

4.2.10.1 ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI

Receipt of Assessment Complete Notification	
ID	**ICS2-CTS-EO-12**

Receipt of Assessment Complete Notification	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful reception of Assessment Complete notification.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	N/A

Prerequisites	• EO System is properly registered in UUM&DS;
	• Connectivity test scenarios of section 4.1 have been successfully completed;
	• Person filing has requested to receive 'Assessment complete' notification message IE3N03, by configuring it in the Manage Trader preferences page on ICS2 STI STP conformance test configuration screens;
	• One of two alternatives below:
	    o EO System has already submitted an ENS Filing (IE3FXX) to ICS2 (according to test scenario **ICS2-CTS-EO-2**) which was valid and was assessed successfully; or
	    o EO System has already submitted an ENS Filing amendment (IE3AXX) to ICS2 (according to test scenario ICS2-CTS-EO-5) which was valid and was assessed successfully.

Scenario Description	1. Verify that assessment complete notification (IE3N03) is successfully received by the EO system for MRN corresponding to the MRN of input message (either IE3FXX or IE3AXX), and that EO System confirms the reception of the response.
Scenario Expected Results	• Assessment complete notification (IE3N03) is successfully received by the EO System. • The EO System acknowledged the reception of the Assessment complete notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 17: Description of test scenario **ICS2-CTS-EO-12***

4.2.10.2 ICS2-CTS-EO-13: Receive Do Not Load Request from STI

Receipt of Do Not Load Request	
ID	**ICS2-CTS-EO-13**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful reception of Do Not Load request.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • One of two alternatives below: o EO System has already submitted an ENS Filing (IE3FXX) to ICS2 (according to test scenario **ICS2-CTS-EO-2**) which ended up in a DNL hit; or o EO System has already submitted an ENS Filing amendment (IE3AXX) to ICS2 (according to test scenario **ICS2-CTS-EO-5**) which ended up in a DNL hit.
Scenario Description	1. Verify that IE3Q01 (DNL request) notification is successfully received by the EO System and that EO System confirms the reception of the notification.
Scenario Expected Results	• Do Not Load request (IE3Q01) is successfully received by the EO System. • The EO System acknowledged the reception of the Do Not Load request by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 18: Description of test scenario **ICS2-CTS-EO-13***

4.2.10.3 ICS2-CTS-EO-14: Receive AEO Control Notification from STI

AEO Control Notification	
ID	**ICS2-CTS-EO-14**

AEO Control Notification	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful reception of AEO[4] control notification.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario **ICS2-CTS-EO-2**; • Economic Operator needs to have an AEOF or AEOS authorisation in order to receive this notification.
Scenario Description	1. STI sends an AEO control notification (IE3N09).
Scenario Expected Results	• AEO control notification (IE3N09) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the AEO control notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 19: Description of test scenario **ICS2-CTS-EO-14***

4.2.10.4 ICS2-CTS-EO-15: Receive Control Notification from STI

Notify Control	
ID	**ICS2-CTS-EO-15**

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[4] Please note that not all EOs can be AEOs. During execution of conformance testing, it should be decided on which EO System this scenario should be ran.

Notify Control	
Sequence Diagram	IE3N08(Control notification)
Test Category	Functional
Test Purpose	Verify successful reception of IE3N08 control notification
Trader Role	Person notifying the arrival and Notify Party.
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3N06 arrival notification, according to test scenario ICS2-CTS-EO-9.
Scenario Description	1. The ICS2 STI sends a Control Notification (IE3N08).
Scenario Expected Results	• Control notification (IE3N08) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the Control notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 20: Description of test scenario **ICS2-CTS-EO-15***

4.2.10.5 ICS2-CTS-EO-16: Receive ENS in Incorrect State Notification from STI

ENS In Incorrect State Notification	
ID	**ICS2-CTS-EO-16**
Sequence Diagram	IE3N07(ENS in incorrect state notification)

ENS In Incorrect State Notification	
Test Category	Functional
Test Purpose	Verify successful reception of IE3N07 ENS in incorrect state notification.
Trader Role	Person notifying the arrival.
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3N06 arrival notification, according to test scenario **ICS2-CTS-EO-9**; • The state of an ENS filing is checked upon arrival. The ENS is not in a correct state to announce its arrival and its House consignments cannot obtain the state 'Arrived'.
Scenario Description	1. The ICS2 STI sends an ENS in incorrect State Notification (IE3N07).
Scenario Expected Results	• ENS in incorrect state notification (IE3N07) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the ENS in incorrect state notification by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 21: Description of test scenario **ICS2-CTS-EO-16***

4.2.10.6 ICS2-CTS-EO-17: Receive ENS Not Complete Notification from STI

ENS Not Complete Notification (Relate ENS filings)	
ID	**ICS2-CTS-EO-17**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful reception of IE3N02 ENS Not Complete Notification.
Trader Role	Carrier or House filer.

ENS Not Complete Notification (Relate ENS filings)	
Input	N/A
Prerequisites	- EO System is properly registered in UUM&DS; - Connectivity test scenarios of section 4.1 have been successfully completed; - Previous successful registration of IE3F12, IE3F13, IE3F21, IE3F22, IE3F26 ENS Filing or IE3A12, IE3A13, IE3A21, IE3A22, IE3A26 Filing amendment to ICS2, according to test scenario **ICS2-CTS-EO-2**: Register ENS Filing or according to test scenario **ICS2-CTS-EO-5**: Amend ENS Filing - Person filing has requested to receive 'ENS not complete' notification message IE3N02, by configuring it in the Manage Trader preferences page on ICS2 STI STP conformance test configuration screens, or one, or more, of the parties that this person has indicated as obliged to lodge ENS filings, have not yet filed.
Scenario Description	1. The ICS2 STI will send the ENS Not Complete Notification to the person filing via the message IE3N02. The notification will also include a list of the filers (*Supplementary declarant*) that this person has indicated as obliged to file and who have not filed yet.
Scenario Expected Results	- The Person filing receives the ENS Not Complete Notification (IE3N02), and EO System confirms the reception of the notification. This notification may be also communicated to the Carrier whenever applicable. - The EO System acknowledged the reception of the ENS Not Complete Notification by a correctly signed AS4 receipt message.
Integration Needs	- UUM&DS; - TAPAS

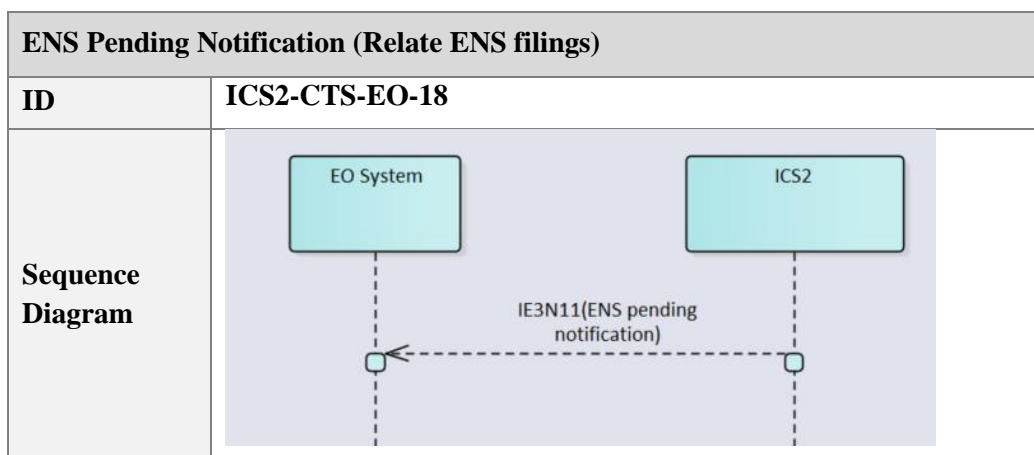*Table 22: Description of test scenario **ICS2-CTS-EO-17***

4.2.10.7 ICS2-CTS-EO-18: Receive ENS Pending Notification from STI

ENS Pending Notification (Relate ENS filings)	
ID	**ICS2-CTS-EO-18**
Sequence Diagram	

ENS Pending Notification (Relate ENS filings)	
Test Category	Functional
Test Purpose	Verify successful reception of IE3N11 ENS Pending Notification.
Trader Role	'Person not yet filed'
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3F12, IE3F14, IE3F21, IE3F22, IE3F26 ENS Filing or IE3A12, IE3A14, IE3A21, IE3A22, IE3A26 Filing amendment to ICS2, according to test scenario **ICS2-CTS-EO-2** or according to test scenario **ICS2-CTS-EO-5**; • Successful IE3N02 notification has been sent to the person filing, which includes also a list of the Supplementary declarants that this person has indicated as obliged to file and who have not filed yet; • Person that has not filed yet, is connected to the STI.
Scenario Description	1. The Person that has not yet filed is informed that he is obliged to file an ENS filing, via the message IE3N11. That is, for each supplementary declarant (*IE4N02/Supplementary declarant*) contained in the received IE4N02 message, an IE3N11 message will be sent.
Scenario Expected Results	• The Person that has not filed receives the ENS Pending Notification with ID IE3N11, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the ENS Pending Notification, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS.

*Table 23: Description of test scenario **ICS2-CTS-EO-18***

4.2.10.8 ICS2-CTS-EO-22: Receive Arrival Registration Response from STI

Arrival Registration Response	
ID	**ICS2-CTS-EO-22**

Arrival Registration Response	
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful reception of IE3R04 Arrival registration response
Trader Role	Notify Party
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3N06 arrival notification, according to test scenario **ICS2-CTS-EO-9**.
Scenario Description	1. The ICS2 STI sends a Arrival registration Response (IE3R04) to the notify party.
Scenario Expected Results	• Arrival registration Response (IE3R04) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the Arrival registration Response, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 24: Description of test scenario **ICS2-CTS-EO-22***

4.2.10.9 ICS2-CTS-EO-23: Receive Additional Information Request notification from STI

Additional Information Request notification	
ID	**ICS2-CTS-EO-23**
Sequence Diagram	

Additional Information Request notification	
Test Category	Functional
Test Purpose	Verify successful reception of IE3N04 Additional Information Request notification.
Trader Role	Carrier
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Carrier has requested to receive 'Additional Information Request' notification message IE3N04, by configuring it in the Manage Trader preferences page on ICS2 STI STP conformance test configuration screens. • Previous successful reception of Additional Information Response (IE3R02) by the EO System, according to scenario **ICS2-CTS-EO-19.**
Scenario Description	1. The ICS2 STI sends an Additional Information Request notification (IE3N04) to the Carrier.
Scenario Expected Results	• Additional Information Request notification (IE3N04) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the Additional Information Request notification, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

Table 25: Description of test scenario **ICS2-CTS-EO-23**

4.2.10.10 ICS2-CTS-EO-24: Receive High Risk Cargo & Mail screening request notification from STI

High Risk Cargo & Mail screening request notification	
ID	**ICS2-CTS-EO-24**
Sequence Diagram	
Test Category	Functional

High Risk Cargo & Mail screening request notification	
Test Purpose	Verify successful reception of IE3N05 High Risk Cargo & Mail screening request notification
Trader Role	Carrier
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Carrier has requested to receive 'High Risk Cargo & Mail screening Request' notification message IE3N04, by configuring it in the Manage Trader preferences page on ICS2 STI STP conformance test configuration screens. • Previous successful reception of HRCM Result Response (IE3R03) by the EO System, according to scenario **ICS2-CTS-EO-20.**
Scenario Description	1. The ICS2 STI sends a High Risk Cargo & Mail screening request notification (IE3N05) to the Carrier.
Scenario Expected Results	• High Risk Cargo & Mail screening request notification (IE3N05) is successfully received by the EO System, and EO System confirms the reception of the notification. • The EO System acknowledged the reception of the High Risk Cargo & Mail screening request notification, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 26: Description of test scenario **ICS2-CTS-EO-24***

4.2.11   Respond to referral requests

4.2.11.1 ICS2-CTS-EO-19: Respond to Request for Information from STI

Additional Information Response	
ID	**ICS2-CTS-EO-19**
Sequence Diagram	
Test Category	Functional

Additional Information Response	
Test Purpose	Verify the successful sequence of: • request for additional information; and • Corresponding additional information response.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario **ICS2-CTS-EO-2**.
Scenario Description	1. EO System receives an additional information request (IE3Q02) of type request for information; 2. EO System sends corresponding Additional Information Response (IE3R02);
Scenario Expected Results	• Additional Information Response (IE3R02) is successfully received by the EO System. • The EO System acknowledged the reception of the Additional Information Response, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 27: Description of test scenario **ICS2-CTS-EO-19***

4.2.11.2 ICS2-CTS-EO-20: Respond to Request for HRCM from STI

HRCM Screening Response	
ID	**ICS2-CTS-EO-20**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify the successful sequence of: • request for HRCM screening; and • Corresponding HRCM result response.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.

HRCM Screening Response	
Input	N/A
Prerequisites	• EO System is properly registered in UUM&DS; • Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario **ICS2-CTS-EO-2**.
Scenario Description	1. EO System receives an HRCM Request IE3Q03; 2. EO System sends corresponding HRCM Result Response (IE3R03);
Scenario Expected Results	• HRCM Result Response (IE3R03) is successfully received by the EO System. • The EO System acknowledged the reception of the HRCM Result Response, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 28: Description of test scenario **ICS2-CTS-EO-20***

4.2.11.3 ICS2-CTS-EO-21: Amend ENS Filing after receiving Additional Information Request from STI

Amend ENS Filing after receiving Additional Information Request	
ID	**ICS2-CTS-EO-21**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify acceptance of IE3AXX ENS Filing amendment by ICS2 system.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• Valid IE3AXX ENS Filing amendment with valid data.
Prerequisites	• EO System is properly registered in UUM&DS;

Amend ENS Filing after receiving Additional Information Request	
	• Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario **ICS2-CTS-EO-2**.
Scenario Description	1. NES issues an additional information request (IE3Q02) of type amendment (CL735 value='AMD'). 2. EO System sends an ENS Filing amendment (IE3AXX) to ICS2 system; 3. Verify that Accept ENS amendment response (IE3N10) is successfully received by the EO System for IE3AXX ENS Filing amendment of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3N10 Accept ENS amendment response is successfully received by the EO System. • The EO System acknowledged the reception of the Accept ENS amendment response, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 29: Description of test scenario **ICS2-CTS-EO-21***

4.2.12   ICS2-CTS-EO-25: Consult ENS

Consult ENS	
ID	**ICS2-CTS-EO-25**
Sequence Diagram	
Test Category	Functional
Test Purpose	Verify successful consultation of IE3FXX ENS Filing.
Trader Role	Postal Operator, Express Operator, Carrier and House filer.
Input	• MRN of already registered IE3FXX ENS Filing for the particular EO.
Prerequisites	• EO System is properly registered in UUM&DS;

Consult ENS	
	• Connectivity test scenarios of section 4.1 have been successfully completed; • Previous successful registration of IE3FXX ENS Filing, according to test scenario ICS2-CTS-EO-2.
Scenario Description	1. EO System sends ENS consultation request (IE3Q05) for ENS Filing of known MRN or Master transport document or House transport document; 2. Verify that ENS consultation result (IE3R08) is successfully received by the EO System for ENS consultation request of step 1, and that EO System confirms the reception of the response.
Scenario Expected Results	• IE3R08 ENS consultation result is successfully received by the EO System. • The EO System acknowledged the reception of the ENS consultation result, by a correctly signed AS4 receipt message.
Integration Needs	• UUM&DS; • TAPAS

*Table 30: Description of test scenario **ICS2-CTS-EO-25***

5 BUSINESS SCENARIOS

The provided business scenarios will be used during the development and maintenance of the system process test cases. Each business scenario concerns a specific business case, Air Cargo, Express or Postal; and covers different aspects and specific functionality of the system. The business scenarios and the derived test cases compliments the EO-CTSs of section 4, and may include in some instance additional steps for the completeness of the business scenario, not depicted in details in the table or within the provided excel sheet.

The steps from the end-to-end business scenarios are depicted in the sections below and linked to the relevant EO-CTSs. The steps must be executed in the exact sequence as depicted in each business scenario relevant table.

This chapter comprises five sub-sections with business scenarios applicable to the following different roles:

1) Postal Operators;
2) Express Operators;
3) Notify Party;
4) Carriers (for rail, road, maritime and air carriers);
5) House Filers (for maritime and air house filers).

The matrix for the mapping of the test scenarios in the business scenarios is listed in the Excel file attached below:

CTS-Business
Scenarios.xlsx
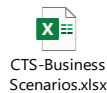
5.1 Business scenarios for Postal Operators

5.1.1 Postal Business Scenario 1: Most common

This section depicts the End-to-end business scenario for the most common scenario for the Postal mode of transport for ICS2 Release 2 & 3.
F43 is lodged and assessment complete message is generated for each house consignment. F44 is lodged.

Postal Data flow
1_Most common _202
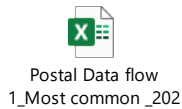
Postal EO			STI		EO-CTS
1	IE3F43	→			ICS2-CTS-EO-2: Register ENS Filing
		←	2	IE3R01	"
		←	3	IE3N03[5]	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI

---

[5] The number of the included house consignments in the ENS filings is not pre-defined and the EO can submit ENS filings with different number of house consignments (as per the ICS2 HTI Specifications). The respective number of Assessment complete messages will be generated. The dependencies concerning the house consignments between the combinations of ENS filings, for example, F43 and F44, should be respected.

Postal EO				STI	EO-CTS
		←	4	IE3N03	"
5	IE3F44	→			ICS2-CTS-EO-2: Register ENS Filing
		←	6	IE3R01	"

Table 31: Postal Business Scenario 1: Most common

5.1.2   Postal Business Scenario 3: Postal with IMS involvement and ENS consultation

This section depicts the End-to-end business scenario for the Postal mode of transport.
F44 and F43 are lodged. An assessment complete is generated for all the house consignments for which no RfS/RfI are requested. For one of the house consignments an RfI and an RfS are received and responded. Then an assessment complete is generated.

Postal Data flow
3_Postal with IMS invo

Postal EO				STI	
1	IE3F44	→			ICS2-CTS-EO-2: Register ENS Filing
		←	2	IE3R01	"
3	IE3F43	→			ICS2-CTS-EO-2: Register ENS Filing
		←	4	IE3R01	"
		←	5	IE3N03[6]	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
		←	6	IE3Q02	ICS2-CTS-EO-19: Respond to Request for Information from STI
7	IE3R02	→			"
		←	8	IE3Q03	ICS2-CTS-EO-20: Respond to Request for HRCM from STI
9	IE3R03	→			"
		←	10	IE3N03	
11	IEQ05	→			Successful ENS consultation
		←	12	IER08	

---

[6] The number of the included house consignments in the ENS filings is not pre-defined and the EO can submit ENS filings with different number of house consignments (as per the ICS2 HTI Specifications). The respective number of Assessment complete messages will be generated. The dependencies concerning the house consignments between the combinations of ENS filings, for example, F43 and F44, should be respected.

Table 32: Postal Business Scenario 3: Postal with IMS involvement and ENS consultation

5.2 Business Scenarios for Express Operators

5.2.1 Express Business Scenario 1: Express (F30 + F32) and Split consignment

This section depicts the End-to-end business scenario for the Express mode of transport for ICS2 Release 2 & 3 where there is a Split consignment.

F32 is lodged and assessment complete message is generated for each house consignment. F30 is lodged by the Express operator containing the HCs from the F32. An assessment complete is generated. Arrival notification is sent by the Express operator through the STI.

An additional F30 with the same content with the first F30 with the Split consignment indicator is filed. An assessment complete is sent. Arrival notification is sent by the Express operator through STI.

Express Data flow
1_Express (F30 + F32)

Express Operator			STI		EO-CTS
1	IE3F32	→			ICS2-CTS-EO-2: Register ENS Filing
		←	2	IE3R01	"
		←	3	IE3N03[7]	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
		←	4	IE3N03	"
5	IE3F30	→			ICS2-CTS-EO-2: Register ENS Filing
		←	6	IE3R01	"
		←	7	IE3N03	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
8	IE3N06	→			ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	9	IE3R04	"
10	IE3F30	→			ICS2-CTS-EO-2: Register ENS Filing
		←	11	IE3R01	"
		←	12	IE3N03	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
13	IE3N06	→			ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	14	IE3R04	"

Table 33: Express Business Scenario 1: Express (F30 + F32) and Split consignment

---

[7] The number of the included house consignments in the ENS filings is not pre-defined and the EO can submit ENS filings with different number of house consignments (as per the ICS2 HTI Specifications). The respective number of Assessment complete messages will be generated. The dependencies concerning the house consignments between the combinations of ENS filings, for example, F32 and F30, should be respected.

5.2.2 Express Business Scenario 2: Express (F31 + F32) and Re-entry

This section depicts the End-to-end business scenario for the Express mode of transport for F31 and F32 combination when there is re-entry.

F32 is lodged and assessment complete message is generated for each house consignment. F31 containing the master level contract details is received. The means of transport is diverted, and an arrival notification is sent for the second MS.

A new F31 is lodged with a re-entry indicator. The person filing, which hold an AEOS, receives an AEO control notification. The means of transport re-enters the Customs union, the arrival notification is sent and a Control notification is received by the EO.

Express Data flow
2_Express (F31 + F32)

Express Operator			STI		EO-CTS
1	IE3F32	→			ICS2-CTS-EO-2: Register ENS Filing
		←	2	IE3R01	"
		←	3	IE3N03[8]	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
		←	4	IE3N03	"
5	IE3F31	→			ICS2-CTS-EO-2: Register ENS Filing
		←	6	IE3R01	"
		←	7	IE3N03	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
8	IE3N06	→			ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	9	IE3R04	"
10	IE3F31	→			ICS2-CTS-EO-2: Register ENS Filing
		←	11	IE3R01	"
		←	12	IE3N03	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
		←	13	IE3N09	ICS2-CTS-EO-14: Receive AEO Control Notification from STI
14	IE3N06	→			ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	15	IE3R04	"
		←	16	IE3N08	ICS2-CTS-EO-15: Receive Control Notification from STI

Table 34: Express Business Scenario 2: Express (F31 + F32) and Re-entry

5.2.3 Express Business Scenario 3: Express (F21 + F32 + F33)

This section depicts the End-to-end business scenario for the Express business case where a Carrier submits the master level contract details.
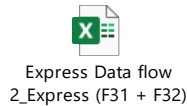
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[8] The number of the included house consignments in the ENS filings is not pre-defined and the EO can submit ENS filings with different number of house consignments (as per the ICS2 HTI Specifications). The respective number of Assessment complete messages will be generated. The dependencies concerning the house consignments between the combinations of ENS filings, for example, F32 and F30, should be respected.

The Express operator files an F32 and assessment complete message is generated for each house consignment. The Express operator lodges a F33 with additional House air waybill information. An assessment complete for the ENS is generated after the master level filing is lodged.

The *Carrier* messages, marked in light grey italics in the flow, will be simulated in order to send the IE3N03 required messages to the EO during the campaign.

Express Data flow 3_Express (F21 + F32

Carrier			Express Operator			STI		EO-CTS
			1	IE3F32	→			ICS2-CTS-EO-2: Register ENS Filing
					←	2	IE3R01	"
					←	3	IE3N03[9]	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
					←	4	IE3N03	"
			5	IE3F33	→			ICS2-CTS-EO-2: Register ENS Filing
					←	6	IE3R01	"
7	IE3F21	→	→	→	→			ICS2-CTS-EO-2: Register ENS Filing
		←	←	←	←	8	IE3R01	"
					←	9	IE3N03	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI

Table 35: Express Business Scenario 3: Express (F21 + F32 + F33)

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[9] The number of the included house consignments in the ENS filings is not pre-defined and the EO can submit ENS filings with different number of house consignments (as per the ICS2 HTI Specifications). The respective number of Assessment complete messages will be generated. The dependencies concerning the house consignments between the combinations of ENS filings, for example, F32 and F30, should be respected.

5.2.4 Express Business Scenarios 4: Express (F34)

This section depicts the End-to-end business scenarios for an Express Operator for ICS2 Release 3 when sending an F34. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation, Controls* and *Controls* business cases.

ICS2 R3 EO Self
conformance F34_202

5.3 Business Scenario for Notify parties

5.3.1 Notify Party Business Scenario F10

This section depicts the End-to-end business scenario for a Notify Party when an F10 is submitted (simulated). Assessment complete is sent.

In a simulated flow, the Person notifying the arrival issues an Arrival Notification, which will include the details of the EO performing the tests as Notify party. The EO performing the self-conformance test verifies that for the Notify Party actor receives the notification. The decision to Control the HC is communicated to the Notify Party. Person notifying the arrival issues a second Arrival Notification with the same identifiers, to trigger the HC in incorrect state notification. Notify Party actor receives the HC in incorrect state notification.

The Carrier and the Person notifying the arrival messages, marked in light grey italics in the flow, will be simulated in order to send the IE3R04, IE3N08 and IE3N07 required messages to the EO during the campaign. The start of the scenario with these messages will be triggered by the EO during the registration of the campaign.

ICS2 R3 EO Self
conformance Notify p

Notify party	Person notifying the arrival		Person filing			STI			EO-CTS
			1	IE3F10	→			→	ICS2-CTS-EO-2: Register ENS Filing
					←	2	IE3R01	←	"
					←	3	IE3N03	←	ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
	4	IE3N06 →	→	→	→			→	ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	←	←	←	5	IE3R04		"
←		←	←	←	←	6	IE3R04		ICS2-CTS-EO-22: Receive Arrival Registration Response from STI
		←	←	←	←	7	IE3N08	←	ICS2-CTS-EO-15: Receive Control Notification from STI

Notify party	Person notifying the arrival			Person filing				STI			EO-CTS
	←		←	←	←	←		8	IE3N08		ICS2-CTS-EO-15: Receive Control Notification from STI
	9	IE3N06	→	→	→	→				→	ICS2-CTS-EO-9: Notify arrival of the means of transport
				←	←	←	←	10	IE3R04		
	←		←	←	←	←		11	IE3R04		ICS2-CTS-EO-22: Receive Arrival Registration Response from STI
	←		←	←	←	←		12	IE3N07	←	ICS2-CTS-EO-15: Receive Control Notification from STI
				←	←	←	←	13	IE3N07	←	ICS2-CTS-EO-15: Receive Control Notification from STI
							←	14	IE3N07	←	ICS2-CTS-EO-15: Receive Control Notification from STI

Table 36: Business Scenario F10 for Notify Parties

5.3.2 Notify Party Business Scenario F20

This section depicts the End-to-end business scenario for a Notify Party when an F20 is submitted (simulated). Assessment complete is sent.

In a simulated flow, the Person notifying the arrival issues an Arrival Notification, which will include the details of the EO performing the tests as Notify party. The EO performing the self-conformance test verifies that for the Notify Party actor receives the notification. The decision to Control the HC is communicated to the Notify Party.

The Carrier and the Person notifying the arrival messages, marked in light grey italics in the flow, will be simulated in order to send the IE3R04 and IE3N08 required messages to the EO during the campaign. The start of the scenario with these messages will be triggered by the EO during the registration of the campaign.

ICS2 R2 EO Self conformance Notify p

Notify party	Person notifying the arrival		Person filing		STI			EO-CTS
			1	IE3F20	→		→	ICS2-CTS-EO-2: Register ENS Filing
					←	2	IE3R01	←	"
					←	3	IE3N03	←	ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
					←	4	IE3N03	←	"
					←	5	IE3N03	←	"

Notify party	Person notifying the arrival		Person filing				STI			EO-CTS
	6	IE3N06	→	→	→	→			→	ICS2-CTS-EO-9: Notify arrival of the means of transport
			←	←	←	←	7	IE3R04		"
←	←		←	←	←	←	8	IE3R04		ICS2-CTS-EO-22: Receive Arrival Registration Response from STI
			←	←	←	←	9	IE3N08	←	ICS2-CTS-EO-15: Receive Control Notification from STI
←	←		←	←	←	←	10	IE3N08		ICS2-CTS-EO-15: Receive Control Notification from STI

Table 37: Business Scenario F20 for Notify Parties

5.4 Business Scenarios for Carriers

As not all types of filings are applicable for each Carrier, a carrier must select which types of ENS filing they intend to send: F10, F11, F12, F13, F20, F21, F27, F28, F29, F40, F41, F42, F45, F50, F51.

For each ENS filings selected, the table below defines the business cases that must be covered to test the complete functionality.

Business case / ENS Filing	F10	F11	F12	F13	F20	F21	F27	F28	F29	F40	F41	F42	F45	F50	F51
Most Common flow	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Do Not Load	X	X	X	X	X			X							
Referrals	X	X	X	X	X	X	X	X	X					X	X
Amendment and Invalidation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Controls and Arrival Notification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ENS Not Complete Notification			X	X		X									

Table 38: Carrier functionality

The functionality will be considered covered once all the business cases applicable per ENS Filing are performed.

As an example, if a carrier selects to support F21 and F42, s/he should perform the following business cases to cover the complete functionality:
- F21 – Most Common flow, Referrals, Amendment and Invalidation, Controls and Arrival Notification and ENS Not Complete Notification;
- F42 - Most Common flow, Amendment and Invalidation and Controls and Arrival Notification.

The *House filer* messages, present in some of the scenarios, will be simulated in order to send the required messages to the EO during the campaign.

5.4.1 Rail

5.4.1.1 Carrier Business Scenarios F41

This section depicts the End-to-end business scenario for a Carrier for ICS2 Release 3 when sending an F41. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Amendment and Invalidation* and *Controls*.

ICS2 R3 EO Self
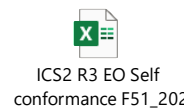conformance F41_202

5.4.1.2 Carrier Business Scenarios F51

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F51. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals, Amendment and Invalidation* and *Controls*.

ICS2 R3 EO Self
conformance F51_202

5.4.2 Road

5.4.2.1 Carrier Business Scenarios F40

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F40. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Amendment and Invalidation* and *Controls*.

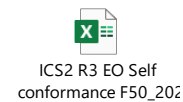ICS2 R3 EO Self
conformance F40_202

5.4.2.2 Carrier Business Scenarios F50

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F50. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals, Amendment and Invalidation* and *Controls*.

ICS2 R3 EO Self
conformance F50_202

5.4.3 Maritime

5.4.3.1 Carrier Business Scenarios F10

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F10. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Do Not Load*, *Amendment and* Invalidation and *Controls* business cases.

ICS2 R3 EO Self
conformance F10_202

5.4.3.2 *Carrier Business Scenarios F11*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F11. The scenarios are described in the attached excel document, consisting of the *Mandatory basis, Referrals, Do Not Load, Amendment and Invalidation and Controls* business cases.
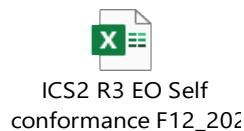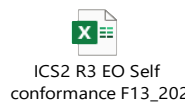
ICS2 R3 EO Self
conformance F11_202

5.4.3.3 *Carrier Business Scenarios F12*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F12. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Do Not Load*, *Amendment and Invalidation, Controls* and *ENS Not Complete Notification* business cases.

ICS2 R3 EO Self
conformance F12_202

5.4.3.4 *Carrier Business Scenarios F13*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F13. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Do Not Load*, *Amendment and Invalidation, Controls* and *ENS Not Complete Notification* business cases.

ICS2 R3 EO Self
conformance F13_202

5.4.3.5 *Carrier Business Scenarios F45*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F45. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Amendment and Invalidation* and *Controls*.

ICS2 R3 EO Self
conformance F45_202

5.4.4 **Air**

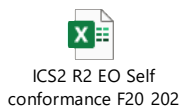### 5.4.4.1 *Carrier Business Scenarios F20*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F20. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Do Not Load*, *Referrals*, *Amendment and Invalidation* and *Controls and Arrival Notification* business cases.
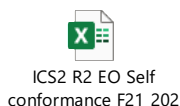
ICS2 R2 EO Self
conformance F20_202

5.4.4.2 Carrier Business Scenarios F21

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F21. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation*, *Controls and Arrival Notification* and *ENS Not Complete Notification* business cases.

ICS2 R2 EO Self
conformance F21_202

5.4.4.3 Carrier Business Scenarios F27

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F27. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation* and *Control and Arrival Notification* business cases.
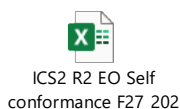
ICS2 R2 EO Self
conformance F27_202

5.4.4.4 Carrier Business Scenarios F28

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F28. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Do Not Load*, *Referrals*, *Amendment and Invalidation* and *Control and Arrival Notification* business cases.
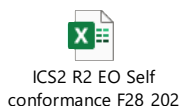
ICS2 R2 EO Self
conformance F28_202

5.4.4.5 Carrier Business Scenarios F29

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F29. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation* and *Control and Arrival Notification* business cases.
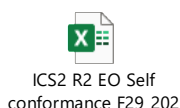
ICS2 R2 EO Self
conformance F29_202

5.4.4.6 Carrier Business Scenarios F42

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F42. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Amendment and Invalidation* and *Control and Arrival Notification* business cases.

ICS2 R2 EO Self
conformance F42_202

5.5 Business Scenarios for House filers

As not all types of filings are applicable for each House filer, a house filer must select which types of ENS filing they intend to send: F14, F15, F16, F17, F22, F23+F25, F24, F26.
For each ENS filing, the following table defines the business cases that must be covered to test the complete functionality.

Business case / ENS Filing	F14	F15	F16	F17	F22	F23 + F25	F24	F26
Most Common flow	X	X	X	X	X	X	X	X
Do Not Load	X	X				X	X	X
Referrals	X	X	X	X	X	X	X	X
Amendment and Invalidation	X	X	X	X	X	X	X	X
AEO Control Notification					X			X
ENS Not Complete Notification					X			X
ENS Pending Notification	X	X	X	X	X			X

Table 39: House filers functionality

The functionality will be considered covered once all the business cases applicable per ENS Filing are performed.
As an example, if a house filer selects to support F22 and F24, s/he should perform the following business cases to cover the complete functionality:

- F22 – Most Common flow, Referrals, Amendment and Invalidation, AEO Control Notification, ENS Not Complete Notification and ENS Pending Notification;
- F24 - Most Common flow, Do Not Load, Referrals and Amendment and invalidation.

The *Carrier* messages, present in some of the flows, will be simulated in order to send the required messages to the EO during the campaign.

5.5.1 Maritime

5.5.1.1 *House filer Business Scenarios F14*

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F14. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Do Not Load*, *Amendment and Invalidation* and *ENS Pending Notification* business cases.

ICS2 R3 EO Self
conformance F14_202

5.5.1.2 House filer Business Scenarios F15

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F15. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Do Not Load*, *Amendment and Invalidation* and *ENS Pending Notification* business cases.
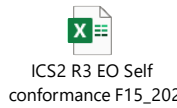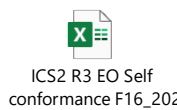
ICS2 R3 EO Self
conformance F15_202

5.5.1.3 House filer Business Scenarios F16

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F16. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation* and *ENS Pending Notification* business cases.

ICS2 R3 EO Self
conformance F16_202

5.5.1.4 House filer Business Scenarios F17

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 3 when sending an F17. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation* and *ENS Pending Notification* business cases.

ICS2 R3 EO Self
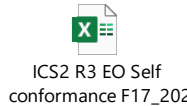conformance F17_202

5.5.2 Air

5.5.2.1 House filer Business Scenarios F22

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F22. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Referrals*, *Amendment and Invalidation*, *AEO Notification*, *ENS Not complete notification* and *ENS Pending Notification* business cases.

ICS2 R2 EO Self
conformance F22_202

5.5.2.2 House filer Business Scenarios F23+F25

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F23 and F25. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Do Not Load*, *Referrals* and *Amendment and Invalidation* business cases.

ICS2 R2 EO Self
conformance F23+F25

5.5.2.3 House filer Business Scenarios F24

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F24. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Do Not Load*, *Referrals* and *Amendment and Invalidation* business cases.

ICS2 R2 EO Self
conformance F24_202

5.5.2.4 House filer Business Scenarios F26

This section depicts the End-to-end business scenarios for a Carrier for ICS2 Release 2 & 3 when sending an F26. The scenarios are described in the attached excel document, consisting of the *Mandatory basis*, *Do Not Load*, *Referrals*, *Amendment and Invalidation*, *AEO Control Notification*, *ENS Not complete notification* and *ENS Pending Notification* business cases.

ICS2 R2 EO Self
conformance F26_202

5.6 Business Scenario for Person Notifying the Arrival

5.6.1 Person Notifying the Arrival Business Scenario F10

This section depicts the End-to-end business scenario for a Person notifying the arrival when an F10 is submitted (simulated)

The Person notifying the arrival sends an Arrival Notification for the means of transport. The decision to Control the HC is communicated to the Person notifying the arrival. The *Person filing* messages, marked in grey italics in the flow, will be simulated in order to generate the MRN required for the EO messages sent during the campaign. The generated MRN is a pre-condition to fill the *Related MRN* in IE3N06 messages to be sent by the Person Notifying the Arrival.

ICS2 R3 EO Self
conformance Arrival r

Person notifying the arrival			Person filing			STI			EO-CTS
			1	IE3F10	→			→	ICS2-CTS-EO-2: Register ENS Filing
					←	2	IE3R01	←	"
					←	3	IE3N03	←	Receive notifications from STI ICS2-CTS-EO-12: Receive

Person notifying the arrival		Person filing				STI		EO-CTS
								Assessment Complete Notifications from STI
4	IE3N06	→	→	→	→			→ ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	←	←	←	5	IE3R04	"
		←	←	←	←	6	IE3N08	← ICS2-CTS-EO-15: Receive Control Notification from STI
7	IE3N06	→	→	→	→			→ ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	←	←	←	8	IE3R04	"
		←	←	←	←	9	IE3N07	← ICS2-CTS-EO-16: Receive ENS in Incorrect State Notification from STIICS2-CTS-EO-16: Receive ENS in Incorrect State Notification from STI

Table 40: Business Scenario F10 for Person Notifying the Arrival

5.6.2 Person Notifying the Arrival Business Scenario F20

This section depicts the End-to-end business scenario for a Person notifying the arrival when an F20 is submitted (simulated)

The Person notifying the arrival sends an Arrival Notification for the means of transport. The decision to Control the HC is communicated to the Person notifying the arrival.

A second Arrival notification is sent, with the same identifier previously used, and Incorrect State Notification is triggered and sent to the Person Notifying the arrival.

The *Person filing* messages, marked in grey italics in the flow, will be simulated in order to generate the MRN required for the EO messages sent during the campaign. The generated MRN is a pre-condition to fill the *Related MRN* in IE3N06 messages to be sent by the Person Notifying the Arrival.

ICS2 R2 EO Self conformance Arrival n

Person notifying the arrival			Person filing			STI			EO-CTS
			1	IE3F20	→			→	ICS2-CTS-EO-2: Register ENS Filing
					←	2	IE3R01	←	"
					←	3	IE3N03	←	Receive notifications from STI ICS2-CTS-EO-12: Receive Assessment Complete Notifications from STI
					←	4	IE3N03	←	"
					←	5	IE3N03	←	"ICS2-CTS-EO-2: Register ENS Filing
6	IE3N06	→	→	→	→			→	ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	←	←	←	7	IE3R04		"
		←	←	←	←	8	IE3N08	←	ICS2-CTS-EO-15: Receive Control Notification from STI
9	IE3N06	→	→	→	→			→	ICS2-CTS-EO-9: Notify arrival of the means of transport
		←	←	←	←	10	IE3R04		"
		←	←	←	←	11	IE3N07	←	ICS2-CTS-EO-16: Receive ENS in Incorrect State Notification from STIICS2-CTS-EO-16: Receive ENS in Incorrect State Notification from STI

Table 41: Business Scenario F20 for Person Notifying the Arrival

End of document