

Excise Functional Requirements BPM Report-CS/MISE

COVER PAGE

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1. INTRODUCTION

1.1. Document Purpose

This document presents the L4 Functional Requirements Processes for CS/MISE. This includes L4 processes that show the human interaction tasks and the automated tasks and the information exchanges. In addition, there is an annex containing graphic representations of the L4 Business Process Diagrams. This report is generated from ARIS and only contains information present in ARIS.

1.2. Deviation From TEMPO

The following TEMPO sections are not part of this document:

- Sign Off list;
- Distribution List;
- Scope;
- Applicable Documents;
- List of Tables;
- List of Figures.

The following TEMPO sections are added to this document:

- Project Ownership;
- Intended Audience.

1.3. Assumption and Constraints

The reader should have a basic knowledge of the EU BPM methodology.

1.4. Project Ownership

The unit DG TAXUD/C2 is the project owner of this Excise Functional Requirements BPM Report.

1.5. Intended Audience

The purpose of this document is to establish a common understanding between readers that are familiar with the applicable documents and may belong to the following categories:

- Any person responsible for the Excise - EMCS business / system processes, requirements, functional specifications or conformance testing;
- Any person responsible for the Export - AES business / system processes, requirements, functional specifications or conformance testing;
- Any person of the development team of DG TAXUD/C5 who will use this document as a reference during the development cycle;
- Any person from the DG TAXUD units who has to verify whether the current document is consistent with the applicable documents and depicts the solution to be followed;
- Any Member State (MS) or Trade representatives who have to identify the actions, implications and consequences on their national domain, including both business people and people having an IT background.

1.6. Structure of Document

This document is organised as follows:

- Introduction;
- References, containing a list of acronyms and abbreviations and the documents referenced in this functional requirements document;

- Document History, listing the different versions and submission dates of this functional requirements document;
- High Level System Overview, providing an overview of the system and the actors involved in this functional requirements document;
- Process Models, visualising in separate sections information from all L4 BPMs relating to the system covered in this functional requirements document.

In separate document, the following related annex may be found:

- Annex 1: Model Graphics, providing all L4 BPM models

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REFERENCES

2. REFERENCES

2.1. Acronyms and abbreviations

ACRONYM	DESCRIPTION
ARC	Administrative Reference Code
Art	Article
BPM	Business Process Model
B2B	Business-to-Business
CCN	Common Communication Network
COL	Customs Office List
CS/MISE	Central Services/Management Information System for EMCS
DG TAXUD	Directorate General Taxation and Customs Union
e-AD	Electronic Administrative Document
ELO	Excise Liaison Office
EMCS	Excise Movement and Control System
EOL	Excise Office List
e-SAD	Electronic Simplified Administrative Document
EU	European Union
ID	Identifier
IT	Information Technology
MS	Member State(s)
MSA	Member State Administration
N/A	Not Applicable
HL	High Level
RADM	Registration and Authorisation Data Management
Reg	Regulation
TEMPO	TAXUD Electronic Management of Projects On-Line
UR	User Requirement

Table 2.1: Acronyms and abbreviations

2.2. Reference Documents

The following documents are of interest to this document and its annexes:

REF.	TITLE	ORIGINATOR	VERSION	DATE
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REFERENCES

R01	SC15 DLV-6.4-1-(10) EU CUSTOMS BPM METHODOLOGY DOCUMENT-v3.00	DG TAXUD	3.00	10/01/2014
R02	Functional Excise System Specifications	DG TAXUD	v3.65	13/11/2013
R03	Design Document for National Excise Applications (EMCS Phase 3)	DG TAXUD	v1.76	13/11/2013

Table

2.2:

Reference

Documents

3. DOCUMENT HISTORY

ED.	REV.	DATE	DESCRIPTION	ACTION *	PAGES
1	00	28/07/2017	Produced L4 Models and Artefacts (EMCS P3.3 Evolution & EMCS Baseline Completion) under SC03-RfA#077 Submitted for Acceptance to DG Taxation and Customs Union.	I,U	All
1	01	04/08/2017	Published for Member States (MSP).	I,U	All
1	02	04/08/2017	Submitted for Review to DG Taxation and Customs Union.	I,U	All
1	03	02/05/2018	Submitted for Acceptance to DG Taxation and Customs Union.	I,U	All
1	04	02/05/2018	Published for Member States (MSI).	I,U	All
1	05	08/10/2018	Implementation of EMCS 3.4 BPMs under SC05-RfA #525. Submitted for Review to DG Taxation and Customs Union.	I,U	All
1	06	29/10/2018	Implementation of EMCS 3.4 BPMs under SC05-RfA #525. Submitted for Acceptance to DG Taxation and Customs Union.	I,U	All
1	07	23/11/2018	Published for Member States (MSI).	I,U	All
3	92	11/11/2020	Implementation of EMCS Phase 4 BPMs under SC09-RfA#632. Submitted for Review to DG Taxation and Customs Union.	I, U	All
3	93	01/12/2020	Implementation of review comments for EMCS Phase 4 BPMs under SC09-RfA#632. Submitted for Acceptance to DG Taxation and Customs Union.	I, U	All
3	94	16/12/2020	Implementation of Phase 4 BPMs under SC09-RfA#632. Submitted for Member States' review.	I, U	All
4	01	18/11/2021	Implementation of the following RFCs:	I, U	All

DOCUMENT HISTORY

			FESS-274, FESS-276, FESS-277, FESS-278, FESS-279, FESS-280, FESS-281, FESS-282, FESS-283, FESS-284, FESS-285. Published for Member States Information (MSI).		
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Table

3.1:

Document

History

*I = Insert, R = Replace, U = Update

4. HIGH LEVEL SYSTEM OVERVIEW

4.1. System Overview

This document contains the functional specifications for the Excise Movement and Control System to which any Nationally Developed Excise Application (NDEA) and Centrally Developed Excise Application (CDEA) needs to conform. These functional specifications are to be regarded as the basis for the development of the technical specifications (i.e. DDNEA – 'Design Document for National Excise Applications'). It is important to note that the complete functional specifications can be found in ARIS and that this document is envisaged to be supporting documentation to the diagrams and information in ARIS. If the legal baseline of this document would change, the functional specifications will need to be updated and aligned.

Since the actual implementation of the system is under national responsibility, the division between user interface and automated tasks included in this document should be considered as a proposal from DG TAXUD. MSAs are free to deviate and introduce more or less automation. However, as with all Trans-European Systems, compliance with the common domain information exchanges will be mandatory to ensure automated communication between MSAs.

4.2. Actors

5. PROCESS MODELS

5.1. Process L4-AVM-01-01-Manage Unavailability Registration Process

5.1.1. Objective of Process

The purpose of this process is to describe all possible paths in the electronic flow of a MSA to announce the unavailability of application services, so that the other Member States are informed in order to take the necessary actions in their own system to cope with that situation. in accordance with the current Common Specifications (FESS and DDNEA).

The current process is triggered when CS/MISE at Common Domain Central Services receives a Business Process Unavailability message (IE770) from a MSA (CS/MISE MSA Central Services), indicating unavailability of functional services.

Three possible types of business process unavailability are defined:

- *Scheduled: An unavailability planned in advance by an NEA for any implemented and open business service having specific begin and end date and time;
- *Unscheduled: An unplanned unavailability by an NEA for any implemented and open business service having specific begin date and time and optionally end date and time;
- *Non-Implemented: An unavailability that reports the non-implementation of a particular business service.

The business processes for which an unavailability is registered, among:

- *Support for All Functionality (i.e. all FESS business process);
- *Support for EMCS - Central Circuit – External Domain Functionality (i.e., all business processes of UC2.01, UC2.05, UC2.06, UC2.07, UC2.10, UC2.12, UC2.33, UC2.34, UC2.36, UC2.43, UC2.44 and UC2.46 of Section II of FESS);
- *Support for EMCS - Central Circuit – Common Domain Functionality (i.e. all business processes of Section II of FESS);
- *Support for EMCS - Follow-up and Collaboration Functionality (i.e. all business process of Section IV of FESS);
- *Support for National SEED Functionality (i.e. all business processes of Section III of FESS that are executed by the MSA central services, i.e. national SEED).

After receiving the Business Process Unavailability message IE770, CS/MISE at Common Domain Central Services validates its data by using the “L4-AVM-01-02-Perform validation of Business Process Unavailability message” sub process. Then, CS/MISE proceeds with the handling of the validation results by using the “L4-AVM-01-03-Handle validation Results of Business Process Unavailability message” call activity. Depending on the outcome (end event) of the “L4-AVM-01-03-Handle validation Results of Business Process Unavailability message” call activity, the following may happen:

1. If a refusal message (IE917) is sent to the MSA Central Services (since the Business Process Unavailability message was found syntactically invalid), the whole process ends at this point;
2. If the Business Process Unavailability message is semantically invalid, then CS/MISE informs via email the registered National Administrator of the MSA;
3. If the Business Process Unavailability message (IE770) is recorded (since it was found valid), the process continues.

Following, CS/MISE builds an Operations on register the unavailability entry based on the information received and stores it. Then, CS/MISE disseminate the unavailability information of Business Process Unavailability message (IE770) and the whole process ends.

5.1.2. Process Details

PROCESS ATTRIBUTE NAME	PROCESS ATTRIBUTE VALUE
Process ID	L4-AVM-01-01
Full Name	Manage Unavailability Registration Process
Assumptions	N/A
Constraints	No constraints.
L3 Reference Models	N/A
Existing Specifications	Design Document for National Excise Applications - v3.02

Table 5.1: Process Details

5.1.3. Tasks and Events

Event Business Process Unavailability to register an unavailability of functional services received

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability to register an unavailability of functional services received
Event Type	Message start event
Description	<p>Business Process Unavailability message (IE770) indicating unavailability of functional services is received.</p> <p>This shows that the concerned MSA requests to inform the other MSAs of anticipated unavailability of functional services.</p> <p>The possible types of unavailability are defined using the possible values of <Type>:</p> <ul style="list-style-type: none"> - 'S' = Scheduled - 'U' = Unscheduled - 'N' = Non-Implemented <p>The possible functional services that can be reported to be unavailable are based on the <Business Process Code>:</p> <ul style="list-style-type: none"> - 1 = All Functionality - 2 = EMCS - Central Circuit – External Domain Functionality - 3 = EMCS - Central Circuit – Common Domain Functionality - 4 = EMCS - Follow-up and Collaboration Functionality - 5 = National SEED Functionality
Previous Objects	CS/MISE MSA Central Services

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PROCESS MODELS

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Table 5.2: Event Business Process Unavailability to register an unavailability of functional services received

Task Perform Validation of Business Process Unavailability

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Perform Validation of Business Process Unavailability
Task Type	Subprocess (collapsed)
Description	This task is modeled in a separate process: L4-AVM-01-02-Perform validation of Business Process Unavailability message.
Actor	CS/MISE
Input Data	
Output Data	
Previous Objects	Business Process Unavailability to register an unavailability of functional services received
Information Exchange	
Requirements	
Data Set	
Events	
State	

Table 5.3: Task Perform Validation of Business Process Unavailability

Task Handle validation results of Business Process Unavailability

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Handle validation results of Business Process Unavailability
Task Type	Call activity (collapsed)
Description	This task is modeled in a separate process: L4-AVM-01-03-Handle validation Results of Business Process Unavailability message.
Actor	CS/MISE
Input Data	
Output Data	
Previous Objects	Perform Validation of Business Process Unavailability
Information Exchange	
Requirements	
Data Set	
Events	

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PROCESS MODELS

State	
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Table 5.4: Task Handle validation results of Business Process Unavailability

Event Refusal message or email notification sent to the MSA Central Services since the Business Process Unavailability had been found invalid

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Refusal message or email notification sent to the MSA Central Services since the Business Process Unavailability had been found invalid
Event Type	End event
Description	1. Refusal message IE917 sent to the MSA Central Services, since the Business Process Unavailability (IE770) had been found invalid for syntactic errors; 2. An email notification sent to the registered National Administrator of the MSA, since the Business Process Unavailability (IE770) had been found invalid for semantic errors.
Previous Objects	What is the outcome of handling the validation results

Table 5.5: Event Refusal message or email notification sent to the MSA Central Services since the Business Process Unavailability had been found invalid

Event Business Process Unavailability recorded

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability recorded
Event Type	Conditional intermediate event
Description	The Business Process Unavailability message (IE770) was recorded since it had been found valid and the process continues.
Previous Objects	What is the outcome of handling the validation results

Table 5.6: Event Business Process Unavailability recorded

Task Build Business Process Unavailability

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Build Business Process Unavailability
Task Type	Service task
Description	CS/MISE builds a Business Process Unavailability message (IE770) containing the information provided by the concerned MSA.
Actor	CS/MISE
Input Data	ATTRIBUTES for IE770 UNAVAILABILITY SCHEDULE

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Output Data	C_AVA_DAT
Previous Objects	Business Process Unavailability recorded
Information Exchange	
Requirements	AVM_FUR_0001
Data Set	
Events	
State	

Table 5.7: Task Build Business Process Unavailability

Task Record the Business Process Unavailability

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Record the Business Process Unavailability
Task Type	Service task
Description	The Business Process Unavailability (IE770) is stored.
Actor	CS/MISE
Input Data	C_AVA_DAT
Output Data	C_AVA_DAT
Previous Objects	Build Business Process Unavailability
Information Exchange	
Requirements	AVM_FUR_0002
Data Set	
Events	
State	

Table 5.8: Task Record the Business Process Unavailability

Task Notify CS/MISE MSA Central Services of the Business Process Unavailability

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Notify CS/MISE MSA Central Services of the Business Process Unavailability
Task Type	Send task
Description	CS/MISE notifies the concerned MSA Central Services of the Business

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	Process Unavailability message (IE770). Additionally, each MSA is informed of the unavailability of the issuing actor.
Actor	CS/MISE
Input Data	C_AVA_DAT
Output Data	
Previous Objects	Record the Business Process Unavailability
Information Exchange	business process unavailability
Requirements	AVM_FUR_0003
Data Set	
Events	
State	

Table 5.9: Task Notify CS/MISE MSA Central Services of the Business Process Unavailability

Event Each MSA is informed of the unavailability of the concerned MSA

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Each MSA is informed of the unavailability of the concerned MSA
Event Type	End event
Description	The registered unavailability information has been sent to all MSAs. MSAs are in a position to apply the steps it defined for such a case, e.g. configure its own application to queue functional requests or refuse applications for the period of unavailability
Previous Objects	Notify CS/MISE MSA Central Services of the Business Process Unavailability

Table 5.10: Event Each MSA is informed of the unavailability of the concerned MSA

5.2. Process L4-AVM-01-03-Handle validation Results of Business Process Unavailability message

5.2.1. Objective of Process

The purpose of this process is to describe all possible paths in the electronic flow of the handling of the validation results of a Business Process Unavailability message received over the Common Domain, in accordance with the current Common Specifications (FESS and DDNEA).

The process is triggered when a Business Process Unavailability message received over the Common Domain is validated by CS/MISE and the validation results are available. Depending on the validation result the following may happen:

- a. If the Business Process Unavailability message was found invalid due to Syntactic violation(s), CS/MISE at Common Domain Central Services builds a Negative Acknowledgement of XML Receipt refusal message (IE917) and then it records it. Following, CS/MISE at the Common Domain Central Services notifies MSA Central Services of the Negative Acknowledgement of XML Receipt refusal message (IE917) and the whole process ends at this point;
- b. If the Business Process Unavailability message was found invalid due to Semantic violation(s), CS/MISE at the Common Domain Central Services identifies CS/MISE sends an email to the registered National Administrator of concerned MSA that originally sent the semantically invalid message. The semantically invalid messages are not processed by CS/MISE and no part of such messages will be registered in CS/MISE, hence no changes to the Availability Schedule occur by semantically invalid messages. The whole process ends at this point
- c. If the Business Process Unavailability message was found valid, CS/MISE at the Common Domain Central Services records the valid message and the whole process ends.

5.2.2. Process Details

PROCESS ATTRIBUTE NAME	PROCESS ATTRIBUTE VALUE
Process ID	L4-AVM-01-03
Full Name	Handle validation Results of Business Process Unavailability message
Assumptions	N/A
Constraints	No constraints.
L3 Reference Models	N/A
Existing Specifications	Design Document for National Excise Applications - v3.02

Table 5.11: Process Details

5.2.3. Tasks and Events

Event Business Process Unavailability message validated and results are available

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message validated and results are available
Event Type	Start event
Description	The validation mechanism has processed the Business Process Unavailability message and produced validation results. The current process starts when the validation results are available to be handled.
Previous Objects	

Table 5.12: Event Business Process Unavailability message validated and results are available

Task Build Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Build Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message
Task Type	Service task
Description	If the Business Process Unavailability message is found invalid due to Syntactic violation(s), CS/MISE builds a Negative Acknowledgement of XML Receipt refusal message (IE917).
Actor	CS/MISE
Input Data	Result Identify if the Business Process Unavailability message is Syntactically valid
Output Data	
Previous Objects	What is the Business Process Unavailability message validation result?
Information Exchange	Negative Acknowledgement of XML Receipt message business process unavailability
Requirements	AVM_FUR_0007
Data Set	
Events	
State	

Table 5.13: Task Build Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

Task Record valid Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Record valid Business Process Unavailability message
Task Type	Service task
Description	The valid Business Process Unavailability message is stored.
Actor	CS/MISE
Input Data	Result Identify if the Business Process Unavailability message is Semantically valid Result Identify if the Business Process Unavailability message is Syntactically valid
Output Data	
Previous Objects	What is the Business Process Unavailability message validation result?

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Information Exchange	business process unavailability business process unavailability
Requirements	AVM_FUR_0006
Data Set	
Events	
State	

Table 5.14: Task Record valid Business Process Unavailability message

Task Record the Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Record the Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message
Task Type	Service task
Description	The Negative Acknowledgement of XML Receipt refusal message (IE917) for an invalid Business Process Unavailability message is stored.
Actor	CS/MISE
Input Data	
Output Data	
Previous Objects	Build Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message
Information Exchange	Negative Acknowledgement of XML Receipt message Negative Acknowledgement of XML Receipt message
Requirements	AVM_FUR_0008
Data Set	
Events	
State	

Table 5.15: Task Record the Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

Event CS/MISE sends an email to the registered National Administrator regarding the refusal of the Business Process Unavailability message

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
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Event Name	CS/MISE sends an email to the registered National Administrator regarding the refusal of the Business Process Unavailability message
Event Type	End event
Description	CS/MISE sends an email to the registered National Administrator regarding the refusal of the Business Process Unavailability message
Previous Objects	What is the Business Process Unavailability message validation result?

Table 5.16: Event CS/MISE sends an email to the registered National Administrator regarding the refusal of the Business Process Unavailability message

Event Business Process Unavailability message recorded

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message recorded
Event Type	End event
Description	The valid Business Process Unavailability message is recorded.
Previous Objects	Record valid Business Process Unavailability message

Table 5.17: Event Business Process Unavailability message recorded

Task Notify CS/MISE MSA Central Services of Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Notify CS/MISE MSA Central Services of Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message
Task Type	Send task
Description	CS/MISE notifies the concerned MSA of the Negative Acknowledgement of XML Receipt refusal message (IE917), for an invalid Business Process Unavailability message.
Actor	CS/MISE
Input Data	
Output Data	
Previous Objects	Record the Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message
Information Exchange	Negative Acknowledgement of XML Receipt message Negative Acknowledgement of XML Receipt message
Requirements	AVM_FUR_0009

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Data Set	
Events	
State	

Table 5.18: Task Notify CS/MISE MSA Central Services of Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

Event Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message sent to MSA Central Services

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message sent to MSA Central Services
Event Type	End event
Description	Negative Acknowledgement of XML Receipt refusal message (IE917) for an invalid Business Process Unavailability message sent to MSA Central Services.
Previous Objects	Notify CS/MISE MSA Central Services of Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message

Table 5.19: Event Negative Acknowledgement of XML Receipt refusal message for an invalid Business Process Unavailability message sent to MSA Central Services

5.3. Process L4-AVM-01-02-Perform validation of Business Process Unavailability message

5.3.1. Objective of Process

The purpose of this sub process is to describe all possible steps during the validation of a Business Process Unavailability message, in accordance with the current Common Specifications (DDNEA).

The current sub process is triggered when a Business Process Unavailability message is received. After the Business Process Unavailability is received, a Syntactic validation of this message is performed:

- In case the message is found invalid due to Syntactic violation(s), the sub process ends here;
- In case the message is found valid, the sub process continues.

Following, Semantic validation of the message is performed:

- In case the message is found invalid due to Semantic violation(s), the sub process ends;
- In case the message is found valid, the sub process continues.

5.3.2. Process Details

PROCESS ATTRIBUTE NAME	PROCESS ATTRIBUTE VALUE
Process ID	L4-AVM-01-02
Full Name	Perform validation of Business Process Unavailability message

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Assumptions	N/A
Constraints	No constraints.
L3 Reference Models	N/A
Existing Specifications	Design Document for National Excise Applications - v3.02

Table 5.20: Process Details

5.3.3. Tasks and Events

Event Business Process Unavailability message received

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message received
Event Type	Start event
Description	The current process starts when a Business Process Unavailability message is received.
Previous Objects	

Table 5.21: Event Business Process Unavailability message received

Task Perform Syntactic validation of Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Perform Syntactic validation of Business Process Unavailability message
Task Type	Service task
Description	<p>The following validations are defined as the Syntactic layer validations and when any of the aforementioned validations fails for a given Common Domain XML message, then that message is defined as syntactically invalid:</p> <ul style="list-style-type: none"> • After the reception of a Common Domain XML message and before the message is further processed the receiver validates the size of the received message (defined in DDNEA and TESS), in order to avoid unresponsiveness or abrupt failure of the receiving application; • In the case that the received message is within the acceptable size limit, the receiver validates that its content conforms to the XML standard (deinfed in DDNEA) and that it is UTF-8 encoded; • Then, the receiver validates the structure of the received Common Domain XML message against the corresponding XSD defined in Appendix H of DDNEA.

	CS/MISE always validates the message structure of all received IE770 messages for XML conformance and XSD compliance. If any syntactic validation fails, then CS/MISE sends an IE917 (C_XML_NCK) to the MSA that originally sent the syntactically invalid message. In addition, syntactically invalid messages are not be processed by CS/MISE and no part of such messages is registered in CS/MISE, hence no changes to the Availability Schedule occur by syntactically invalid messages
Actor	
Input Data	
Output Data	Result Identify if the Business Process Unavailability message is Syntactically valid
Previous Objects	Business Process Unavailability message received
Information Exchange	business process unavailability
Requirements	AVM_FUR_0004
Data Set	
Events	
State	

Table 5.22: Task Perform Syntactic validation of Business Process Unavailability message

Event Business Process Unavailability message found invalid due to syntactic violation(s)

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message found invalid due to syntactic violation(s)
Event Type	End event
Description	The Business Process Unavailability message was found invalid due to Syntatic violation(s) and the process ends.
Previous Objects	Has the Business Process Unavailability message passed Syntactic validation successfully?

Table 5.23: Event Business Process Unavailability message found invalid due to syntactic violation(s)

Task Perform Semantic validation of Business Process Unavailability message

TASK ATTRIBUTE NAME	TASK ATTRIBUTE VALUE
Task Name	Perform Semantic validation of Business Process Unavailability message
Task Type	Service task

Description	<p>CS/MISE semantically validates incoming IE770 messages. In the case where a semantically invalid IE770 message is received, the MSA Administrator is notified via email.</p> <p>The semantically invalid messages are not processed by CS/MISE and no part of such messages will be registered in CS/MISE, hence no changes to the Availability Schedule occur by semantically invalid messages.</p> <p>CS/MISE raises a semantic validation error:</p> <ol style="list-style-type: none"> 1. If the <Message Sender> Data Item does not contain a value of the form “NDEA.<Member State Code>”, where “<Member State Code>” is a value from the Member State Codes Business Codelist (this validation is in accordance to see Section VII.I.4 “Common message header”) that also corresponds to the MSA sending (or uploading) the IE770 message. 2. If the <Message Receiver> Data Item does not contain the value “CSMISE.EC” (when CS/MISE sends an IE770, it is the <Message Sender> that will have the value “CSMISE.EC”). 3. If another IE770 message from the same MSA and with the same <Message Identifier> value has already been received (this validation is in accordance to Section VIII.I.3.2.3.1 “Coordination protocol validations”). 4. If the value of the <HEADER>.<Unavailability Schedule Message Type> Data Item is “2: Notification to national domains” (the IE770 messages received by CS/MISE should have the value “1: Notification to common domain Central Services” and only the messages sent by CS/MISE should have the value “2: Notification to national domains”). 5. If the value of the <UNAVAILABILITY SCHEDULE>.<Member State Code> Data Item is not a valid code of the Member States Codelist (BC11) or does not correspond to the MSA sending (or uploading) the IE770 message (see also semantic validation 1). 6. If the value of the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<Operation> Data Item is not a valid code according to rule R086, stating the following: The <Operation> attribute is used to indicate what action is applied: ‘C’ (create), ‘D’ (delete). In case of “updates”, the Data Group ‘SYSTEM UNAVAILABILITY’ to be updated will be first deleted and then (re-)created. 7. If the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<Operation> Data Item “C: Create”, but the contents of a <SYSTEM UNAVAILABILITY> descendant have the same business process code and the same starting date and time: <ul style="list-style-type: none"> · with another <SYSTEM UNAVAILABILITY> within the same IE770 message (i.e. not necessarily a descendant of the same <(US) ACTION> or <UNAVAILABILITY SCHEDULE>), or · with another entry of the Availability Schedule of CS/MISE (i.e. an entry has already been registered in CS/MISE via any means) concerning the same Member State and being the Scheduled or the Unscheduled type. 8. If the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<Operation> Data Item “C: Create”, but the contents of a <SYSTEM UNAVAILABILITY> descendant have the same business
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	<p>process code overlap:</p> <ul style="list-style-type: none"> · with another <SYSTEM UNAVAILABILITY> of Non-implemented type within the same IE770 message (i.e. not necessarily a descendant of the same <(US) ACTION> or <UNAVAILABILITY SCHEDULE>), or · with another entry of the Availability Schedule of CS/MISE (i.e. an entry has already been registered in CS/MISE via any means) concerning the same Member State and being the Non-implemented type. <p>It is said that two unavailability entries overlap when their periods defined by the starting and ending date and time are overlapping.</p> <p>9. If the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<Operation> Data Item “C: Create”, but the contents of a <SYSTEM UNAVAILABILITY> descendant overlap:</p> <ul style="list-style-type: none"> · with another <SYSTEM UNAVAILABILITY> of Non-implemented type having business process code “All” within the same IE770 message (i.e. not necessarily a descendant of the same <(US) ACTION> or <UNAVAILABILITY SCHEDULE>), or · with another entry of the Availability Schedule of CS/MISE (i.e. an entry has already been registered in CS/MISE via any means) concerning the same Member State, being the Non-implemented type, and having business process code “All”. <p>10. If the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<Operation> Data Item “D: Delete”, but the contents of a <SYSTEM UNAVAILABILITY> descendant are not identical with an already existing entry in the Availability Schedule of CS/MISE (i.e. the same entry has not been registered in CS/MISE via any means).</p> <p>11. If the Data Item <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Type> is “S:Scheduled” and the Data Item <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Downtime End Date and Time> is missing, thus violating Condition C059, which states the following:</p> <pre>IF <Type> is "Scheduled" THEN <Downtime TO> is 'R' ELSE <Downtime TO> is 'O'</pre> <p>12. If the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Downtime End Date and Time> exists and is earlier or equal to <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Downtime Start Date and Time>.</p> <p>13. If the value of the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Explanation> Data Item is provided and the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Explanation_LNG> Data Item is not a valid code of the Language Codes Codelist (BC12).</p> <p>14. If the Data Item <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Type> is “S:Scheduled” and the value of the <UNAVAILABILITY SCHEDULE>.<(US) ACTION>.<SYSTEM UNAVAILABILITY>.<Downtime Start Date and Time> is less than the 48 hours from the date and time that the IE770</p>
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	message is processed.
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PROCESS MODELS

Actor	
Input Data	Result Identify if the Business Process Unavailability message is Syntactically valid

Excise Functional Requirements BPM Report-CS/MISE
PROCESS MODELS

Output Data	Result Identify if the Business Process Unavailability message is Semantically valid
Previous Objects	Has the Business Process Unavailability message passed Syntactic validation successfully?
Information Exchange	business process unavailability
Requirements	AVM_FUR_0005
Data Set	
Events	
State	

Table 5.24: Task Perform Semantic validation of Business Process Unavailability message

Event Business Process Unavailability message found valid

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message found valid
Event Type	End event
Description	The Business Process Unavailability message was found valid and the process ends.
Previous Objects	Has the Business Process Unavailability message passed Semantic validation successfully?

Table 5.25: Event Business Process Unavailability message found valid

Event Business Process Unavailability message found invalid due to Semantic violation(s)

EVENT ATTRIBUTE NAME	EVENT ATTRIBUTE VALUE
Event Name	Business Process Unavailability message found invalid due to Semantic violation(s)
Event Type	End event
Description	The Business Process Unavailability was found invalid due to Semantic violation(s) and the process ends.
Previous Objects	Has the Business Process Unavailability message passed Semantic validation successfully?

Table 5.26: Event Business Process Unavailability message found invalid due to Semantic violation(s)