

## System-to-system technical and functional specifications for Traders for the AES-RO application

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Version	Date	Description
1.0	06.12.2022	Initial version - partially covers the functionality of the new AES-RO system. Will be updated as AES-RO developments progress

## 1. Overview

The export procedure applies to Union goods to be removed from the customs territory of the European Union.

The export procedure involves the application of all export and exit formalities, including, where appropriate, the payment of export refunds and the presentation of export licences.

The Automated Export System - AES-RO is the next phase of the existing Trans-European Export Control System (ECS).

The AES-RO application exposes a set of REST endpoints through which external applications can transmit messages in XML format to the AES-RO application.

At the same time, the AES-RO application exposes 2 endpoints that can be called to retrieve messages that the AES-RO application sends to traders. A /hasNext endpoint provides a response indicating that there is an unread message for a particular recipient and a /next endpoint that responds with the next unread message for a recipient.

Messages that the AES-RO application sends to external applications are maintained in a message queue implemented at the AES-RO application level. When the AES-RO application wants to transmit a message to a specific recipient, it inserts an XML message into a first in first out (FIFO) message queue, which can be accessed via the /next endpoint. Each call to the /next endpoint involves retrieving the next unread message from the queue, returning it to the calling system and marking the message as read in the AES-RO message queue.

All endpoints that AES-RO exposes for the purpose of system-to-system integration consume XML content-type application/xml messages and produce XML content-type application/xml messages.

In sub-activity 1 of the project, functionalities have been implemented to ensure the communication of information related to customs export operations that are being performed through the EDI component of AES-RO using the following messages:

Message	Sender	Recipient	Content and purpose of the message
IE515C	Declarant/representative	Customs office of export	The message contains the customs export declaration

IE528	Customs office of export	Declarant/representative	The message represents the acceptance of the declaration and includes the date and the assigned MRN.
IE529	Customs office of export	Declarant/representative	The message is information on the release for export .
IE507	Exit trader	Customs office of exit	The message is the notification of arrival of the goods at the Customs office of exit
IE525	Customs office of exit	Exit trader	The message represents the notification of release on exit
IE590	Exit trader	Customs office of exit	The message is the exit notification for the physical exit of goods from the customs territory of the European Union
IE599	Customs office of export	Declarant/representative	The message is the export notification confirming the exit of the goods from the customs territory of the European Union

The system provides message processing as shown below:

Actor	Event	Sent message (EDI)	Sender	Recipient
Declarant/ representative	Transmission of the customs export declaration	IE515	Declarant/ representative	Customs office of export
Customs office of export	Acceptance of the customs export declaration by the attribution of an MRN	IE528	Customs office of export	Declarant/ representative
Proces automat	Performing automatic risk analysis	N/A	N/A	N/A
Customs office of export	After performing the automatic risk analysis in the RMF-RO the system recommendation is sent to the AES-RO and based on the information the customs worker takes the decision not to check either the documents or the goods.	N/A	N/A	N/A
Automatic process	Granting of	IE529	N/A	Declarant/

Actor	Event	Sent message (EDI)	Sender	Recipient
	duty-free export			representative
Exit trader	Notification of arrival of goods	IE507	Exit trader	Customs office of exit
Automatic process	Performing automated risk analysis	N/A	N/A	N/A
Customs office of exit	Taking the control decision	N/A	N/A	N/A
Customs office of exit	Notification of release on exit	IE525	Customs office of exit	Exit trader
Exit trader	Exit notification	IE590	Exit trader	Customs office of exit
Customs office of export Automatic process	Export notification	IE599	Customs office of export	Declarant/ representative

In sub-activity 2 of the project, functionalities have been implemented to ensure communication between the Trader application and the AES-RO system through the following new messages:

Message	Sender	Recipient	Content and purpose of the message
IE560	Customs office of export	Declarant/representative	Notification of export control decision
IE551	Customs office of export	Declarant/representative	Refusal to release the export operation
IE511	Declarant/representative	Customs office of export	Notification of presentation of goods
IE513	Declarant/representative	Customs office of export	Application for amendment of

			the customs export declaration
IE504	Customs office of export	Declarant/representative	Acceptance of the application for amendment of the customs export declaration
IE514	Declarant/representative	Customs office of export	Application for invalidation of a customs export declaration
IE509	Customs office of export	Declarant/representative	Decision invalidating the customs export declaration
IE556	Customs office of export	Declarant/representative	Rejection by the customs office of export
IE531	Customs office of export	Declarant/representative	Notification of expiry of the time limit for submitting the supplementary declaration

In sub-activity 3 of the project, functionalities have been implemented to ensure communication between the Trader application and the AES-RO system through the following new message:

Message	Sender	Recipient	Content and purpose of the message
IE560	Customs office of Surveillance	Declarant/representative	Notification of export control decision

## 2. Detailing web services for sending messages in XML format to the AES-RO application

The AES-RO application exposes a set of endpoints through which messages can be transmitted in XML format, depending on the business scenario being pursued. In

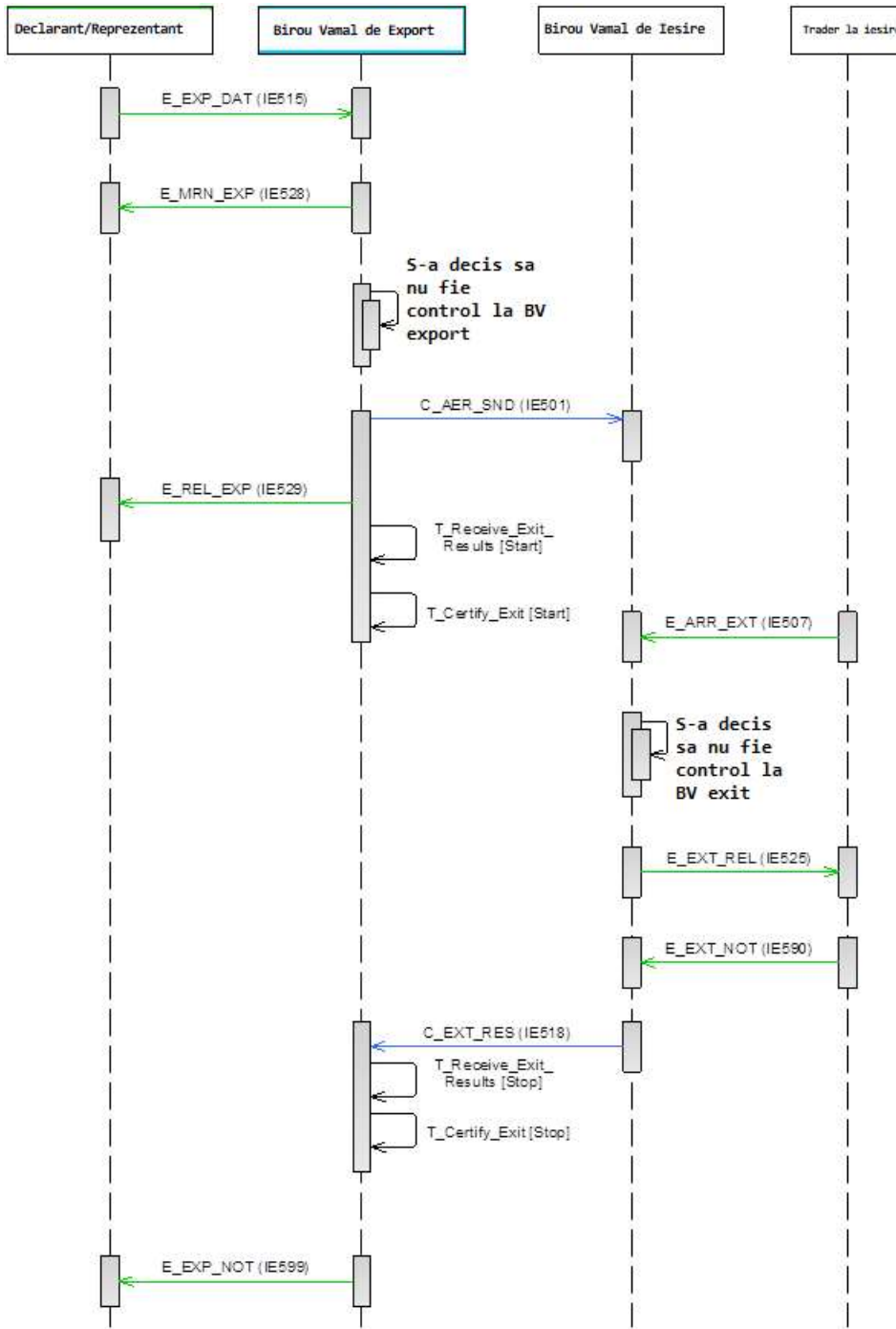
this section we will detail the IE515, IE507, IE590 message receiving endpoints. The XSD message schemas can be found in Chapter 5 - Appendix 1.

In the following subchapters we will detail the web services exposed by the AES-RO application to receive the IE515, IE507, IE590 messages - represented in the diagram in Figure 1, the IE511, IE513 messages - represented in the diagram in Figure 2 and the IE514 message - represented in the diagram in Figure 3. In the diagrams in Figure 1, Figure 2 and Figure 3, these messages are represented by green, unidirectional arrows, which go from the Declarant/Representative or the Exit Trader to the Customs office of Export or Customs Office of Exit.

The messages going from the Customs office of export or Customs office of exit to the Declarant/representative or Exit trader are the messages that the AES-RO application sends to the trader. These messages can be retrieved by external applications via the /hasNext endpoint described in chapter 3.1 - /hasNext endpoint.

Messages going from the Customs office of export to the Customs office of exit or vice versa are messages transmitted internally in the AES-RO application, they are not of interest to external applications.



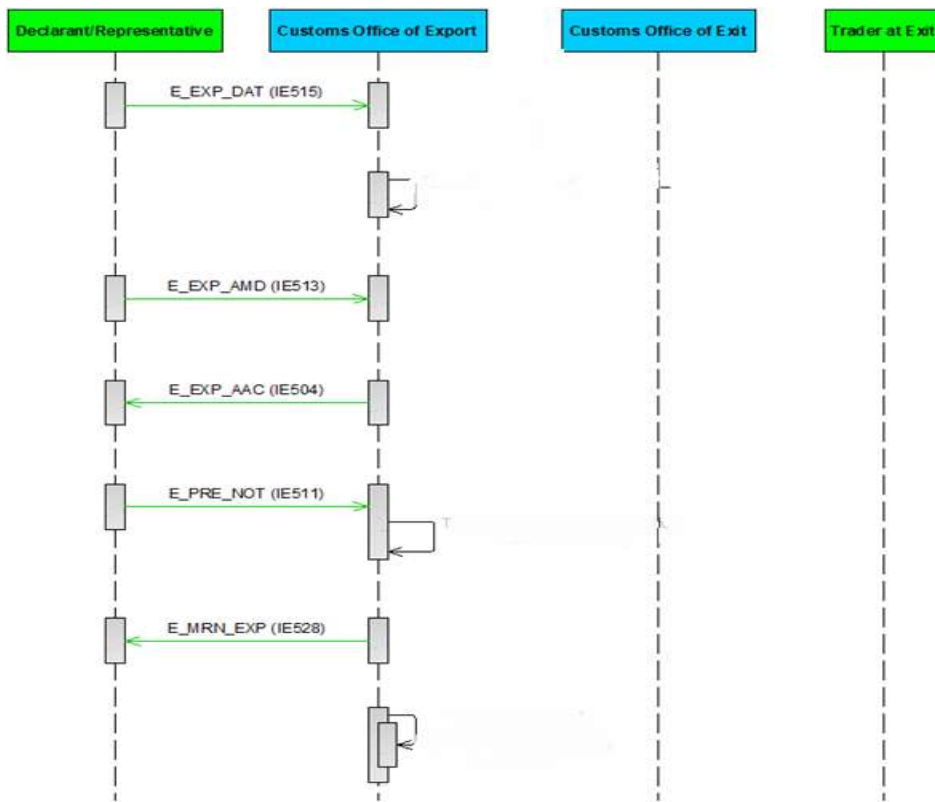


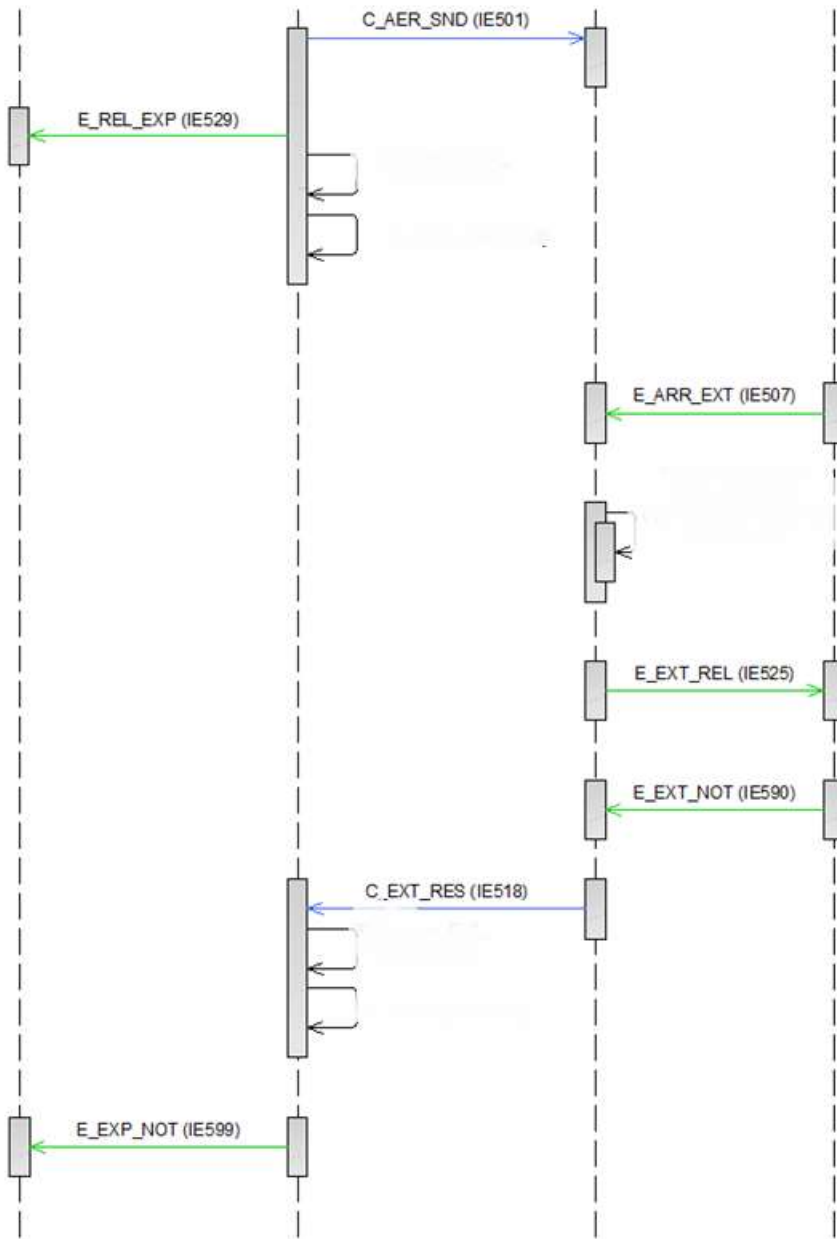
**Figure 1 - Message flow in interaction with the AES-RO application - Core flow**

The above diagram shows the standard export flow as follows:

- The declarant/representative submits the IE515 (customs export declaration);

- The customs officer at the Customs office of export accepts the declaration and sends the IE528 message;
- The customs officer decides not to control and the export customs clearance is automatically transmitted via message IE529;
- The AER data in the customs export declaration is transmitted via message IE501 from the Customs office of export to the Customs office of exit;
- Trader at exit transmits arrival notification via message IE507;
- Customs officer at the customs office of exit decides not to control the goods and sends exit release notification message IE525;
- Trader at exit sends exit notification via message IE590;
- Customs office of exit transmits control results via message IE518 to Customs office of export;
- Customs office of export sends export notification via message IE599 to declarant/representative.

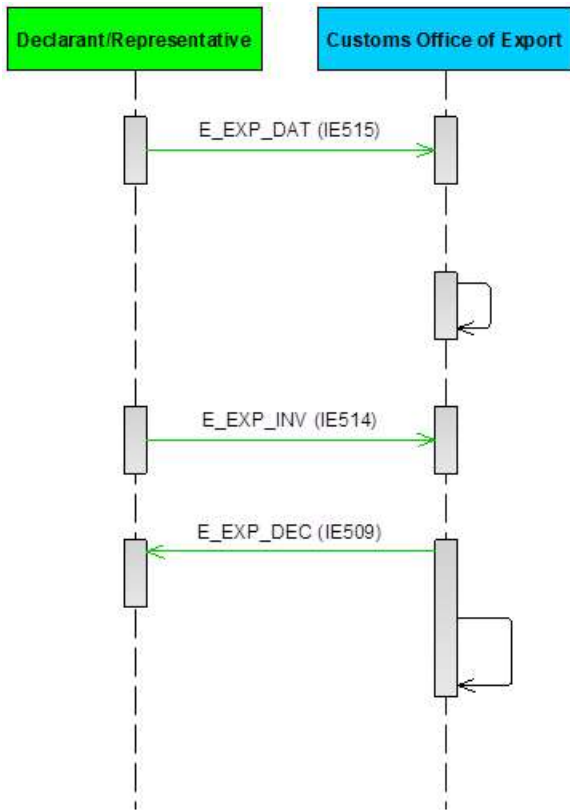




**Figure 2 - Message flow in interaction with the AES-RO application - Correction of the pre-logged declaration prior to presentation of goods**

- The declarant/representative transmits the amendment of the declaration before presentation via message IE513 and the Customs office of export transmits back the acceptance of the amendment to the declaration via message IE504;

- The declarant/representative sends notification of presentation via message IE511 for a declaration lodged before presentation of the goods;



**Figure 3 - Message flow in interaction with the AES-RO application - Cancellation of the pre-lodged declaration prior to presentation of goods**

- - The declarant/representative can send an invalidation request via message IE514 and the Customs office of export sends back message IE509 with the decision taken: acceptance or refusal of the invalidation request.

### 2.1. How to identify messages and their senders

Applications involved in system-to-system communication communicate via HTTP webservices exposed by the AES application, through which messages can be sent to the AES (chapters 2.2, 2.3) and messages sent by the AES can be retrieved (chapter 3).

All messages used in system-to-system communication have the following common properties, which are important in communication between systems, as they can be used to determine the identity and the sender of a message:

- messageIdentification
- messageSender

A message sent to the AES application with a given messageIdentification will trigger possible subsequent messages from the AES application having the same value for the correlationIdentifier property.

A message sent to the AES application with a certain value of the messageSender property will trigger possible subsequent messages from the AES application, which can be queried and retrieved via the /hasNext and /next endpoints exposed by the AES application, using the same value for the "sender" parameter.

Example:

Sending an IE515 message with messageSender=RO111111 and messageIdentification=1, will generate, on acceptance of the declaration, the IE528 message, which can be retrieved by calling: `http://{{host}}:9500/aes/s2s/hasNext?sender=RO111111` and will have the correlationIdentifier=1 property in its component.

The endpoints described in the above example will be detailed in subchapters 2.2, 2.3 and chapter 3.

## 2.2. Messages sent by Declarant/Representative to Customs office of export

### 2.2.1. IE515 message

The HTTP POST method is used, as follows:

**POST http://{{host}}:9500/aes/s2s/ie515 cu header Content-Type: application/xml**

using as request body an XML that respects the IE515 message structure. The XSD schemes of the messages can be found in Chapter 5 - Appendices.

If the message is processed successfully, the endpoint will respond with response code 200 and response body with a structure as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <time>2022-11-09T23:22:01.068027400</time>
</S2SResponse>
```

If the message is processed with error, the endpoint will respond with response code 400 (in case of validation errors made considering XSD schema and XML structure validity) or 500 (in case of server errors), with a response body as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<S2SResponse>
```

```
<errorCode>cod standard(a list of codes will be available)</errorCode>
```

```
<errorMessage> text indicating the reason for the error </errorMessage>
```

```
<time>2022-11-09T23:23:22.102445</time>
```

```
</S2SResponse>
```

In case of business errors (rejection of the declaration), the AES-RO application will send a message of type IE556 to the message queue, to be picked up by the sender of the IE515 message, which can be picked up by the /next endpoint, described in chapter 3.3 - The /next endpoint. The XSD message schemas can be found in Chapter 4 - Technical message structure.

### 2.2.2. IE513 Message

The HTTP POST method is used, as follows:

**POST** <http://{{host}}:9500/aes/s2s/ie513> cu header **Content-Type: application/xml**

Using as request body an XML that respects the IE511 message structure. The XSD schemes of the messages can be found in Chapter 5 - Appendices 1.

If the message is processed successfully, the endpoint will respond with response code 200 and response body with a structure as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<S2SResponse>
```

```
<time>2022-11-09T23:22:01.068027400</time>
```

```
</S2SResponse>
```

If the message is processed with an error, the endpoint will respond with response code 400 (in the case of validation errors made considering the XSD scheme and the validity of the XML structure) or 500 (in the case of server errors), with a response body as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<S2SResponse>
```

```
<errorCode>COD STANDARD(A LIST OF CODES WILL BE  
AVAILABLE)</errorCode>
```

```
<errorMessage>TEXT INDICATING THE REASON FOR THE ERROR  
</errorMessage>
```

```
<time>2022-11-09T23:23:22.102445</time>
```

```
</S2SResponse>
```

In case of business errors (declaration rejection), the AES-RO application will send an IE556 type message to the message queue, to be picked up by the sender of the IE513

message, which can be picked up via the /next endpoint, described at chapter 3.3 - The /next endpoint.

### 2.2.3. IE511 Message

The HTTP POST method is used as follows:

**POST <http://{{host}}:9500/aes/s2s/ie511> with header Content-Type: application/xml**

Using as request body an XML that follows the IE513 message structure. The XSD schemas for the messages can be found in Chapter 5 - Appendix 1.

If the message is processed successfully, the endpoint will respond with a 200 response code and a response body with a structure like the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <time>2022-11-09T23:22:01.068027400</time>
</S2SResponse>
```

If the message is processed with an error, the endpoint will respond with a 400 response code (in the case of validation errors considering the XSD schema and the validity of the XML structure) or 500 (in the case of server errors), with a response body like the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <errorCode>COD STANDARD(A LIST OF CODES WILL BE
AVAILABLE)</errorCode>
  <errorMessage>TEXT INDICATING THE REASON FOR THE ERROR
</errorMessage>
  <time>2022-11-09T23:23:22.102445</time>
</S2SResponse>
```

In the case of business errors (rejection of the declaration), the AES-RO application will send a message of type IE556 to the message queue, to be picked up by the sender of the IE511 message, which can be picked up through the /next endpoint, described in Chapter 3.3 - The /next endpoint.

### 2.2.4. IE514 Message

The HTTP POST method is used, as follows:

**POST <http://{{host}}:9500/aes/s2s/ie514> with header Content-Type: application/xml**

Using as request body an XML that respects the IE514 message structure. The XSD schemes of the messages can be found in Chapter 5 - Appendices 1.

If the message is processed successfully, the endpoint will respond with response code 200 and response body with a structure as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <time>2022-11-09T23:22:01.068027400</time>
</S2SResponse>
```

If the message is processed with error, the endpoint will respond with response code 400 (in case of validation errors, considering XSD schema and XML structure validity) or 500 (in case of server errors), with a response body as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<S2SResponse>

  <errorCode>ECOD STANDARD(A LIST OF CODES WILL BE
AVAILABLE)</errorCode>
  <errorMessage>TEXT INDICATING THE REASON FOR THE ERROR
</errorMessage>
  <time>2022-11-09T23:23:22.102445</time>
</S2SResponse>
```

In case of business errors (rejection of the declaration), the AES-RO application will send a message of type IE556 to the message queue, to be picked up by the sender of the IE514 message, which can be picked up by the /next endpoint, described in chapter 3.3 - The /next endpoint.

## 2.3. Messages sent by the Trader at exit to the Customs Office of Exit

### 2.3.1. IE507 Message

The HTTP POST method is used, as follows:

**POST http://{{host}}:9500/aes/s2s/ie507 with header: Content-Type: application/xml**

Using as request body an XML that respects the IE507 message structure. The XSD schemes of the messages can be found in Chapter 5 - Appendices 1.

If the message is processed successfully, the endpoint will respond with response code 200 and response body with a structure as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
```



```
<time>2022-11-09T23:22:01.068027400</time>
</S2SResponse>
```

If the message is processed with error, the endpoint will respond with response code 400 (in case of validation errors made considering XSD schema and XML structure validity) or 500 (in case of server errors), with a response body as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <errorCode>COD STANDARD(A LIST OF CODES WILL BE
AVAILABLE)</errorCode>
  <errorMessage>TEXT INDICATING THE REASON FOR THE ERROR
</errorMessage>
  <time>2022-11-09T23:23:22.102445</time>
</S2SResponse>
```

In the case of business errors, the AES-RO application will send a message of type IE557 to the message queue, to be picked up by the sender of the IE507 message, which can be picked up via the /next endpoint, described in chapter 3.3 - The /next endpoint.

### 2.3.2. IE590 Message

**POST <http://{{host}}:9500/aes/s2s/ie590> cu header: Content-Type: application/xml**

Using as request body an XML that respects the IE590 message structure. The XSD schemes of the messages can be found in Chapter 5 - Appendices 1.

If the message is processed successfully, the endpoint will respond with response code 200 and response body with a structure as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S2SResponse>
  <time>2022-11-09T23:22:01.068027400</time>
</S2SResponse>
```

If the message is processed with error, the endpoint will respond with response code 400 (in case of validation errors made considering XSD schema and XML structure validity) or 500 (in case of server errors), with a response body as in the following example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```

<S2SResponse>
  <errorCode>COD STANDARD(A LIST OF CODES WILL BE
AVAILABLE)</errorCode>
  <errorMessage>TEXT INDICATING THE REASON FOR THE ERROR
</errorMessage>
  <time>2022-11-09T23:23:22.102445</time>
</S2SResponse>

```

In the case of business errors, the AES-RO application will send a message of type IE557 to the message queue, to be picked up by the sender of the IE590 message, which can be picked up via the /next endpoint, described in chapter 3.3 - The /next endpoint.

### 3. Picking-up the messages for external applications sent by the AES application

When the AES-RO application sends out messages to external applications, the AES-RO writes XML messages to a message queue implemented at the application level. Persistence of the message queue is done at the AES-RO database level.

To retrieve messages from this message queue, the AES-RO application exposes the following endpoints of interest:

#### 3.1. /hasNext Endpoint

This endpoint returns information related to the presence of a message for a specific recipient. The call is made as follows:

```
GET http://{{host}}:9500/aes/s2s/hasNext?sender={sender}
```

Under the sender parameter is the recipient of the message.

For an understanding of the "sender" parameter, see Chapter 2.1. How to identify messages and their senders.

The endpoint returns an XML message of form:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<HasMessages>
  <sender>RO11868245</sender>
  <hasMessages>true</hasMessages>
</HasMessages>

```

Where the hasMessage value can have the values:

- true - if there is an unread message for the recipient sent via the sender parameter
- false - if there is no unread message for the recipient sent by the sender parameter

### 3.2. /next Endpoint

This endpoint returns the next unread message to a specific recipient.

The call is made as follows:

```
GET http://{{host}}:9500/aes/s2s/next?sender={sender}
```

For an understanding of the "sender" parameter, please refer to Chapter 2.1. How to identify messages and their senders.

The endpoint returns in XML format the next unread message if it exists. An example of a response for the case when the returned message is of type IE556 is: <?

```
xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<CC556>
```

```
  <messageSender> NTA.RO</messageSender>
```

```
  <messageRecipient>RO11868245</messageRecipient>
```

```
  <preparationDateAndTime>2022-10-12T05:17:39.867Z</preparationDateAndTime>
```

```
  <messageIdentification>82911245258999</messageIdentification>
```

```
  <messageType>CC556C</messageType>
```

```
  <correlationIdentifier>82911245258912</correlationIdentifier>
```

```
<ExportOperation>
```

```
  <LRN>2251s2stest69</LRN>
```

```
  <MRN>mrn-value-src</MRN>
```

```
  <businessRejectionType>GENERAL REJECTION</businessRejectionType>
```

```
  <rejectionDateAndTime>2022-10-12T05:17:39.867Z </rejectionDateAndTime>
```

```
  <rejectionCode>REJECTION_CODE</rejectionCode>
```

```
  <rejectionReason>REJECTION_REASON</rejectionReason>
```

```
</ExportOperation>
```

```
<CustomsOfficeOfExport>
```

```
  <referenceNumber>ROBU7100</referenceNumber>
```

```
</CustomsOfficeOfExport>
```

```
<Declarant>
```

```
  <identificationNumber>RO51</identificationNumber>
```

```
  <name>ELECTROAPARATAJ SA</name>
```

```

    <Address>
      <streetAndNumber>CALEA CAMPULUNG NR.121</streetAndNumber>
      <postcode>130098</postcode>
      <city>TARGOVISTE</city>
      <country>RO</country>
    </Address>
  </Declarant>
  <Representative>
    <identificationNumber>ro52</identificationNumber>
    <status>ON</status>
  </Representative>
  <functionalError>
    <errorPointer>1</errorPointer>
    <errorCode>VALIDATION_EXCEPTION</errorCode>
    <errorReason>LRN deja exista</errorReason>
    <originalAttributeValue></originalAttributeValue>
  </functionalError>
</CC556>

```

XSD message schemas can be found in Chapter 5 - Appendix 1.

After processing, the message is marked as read in the message queue maintained by the AES application. If all messages for a given recipient are processed, the /hasNext - endpoint will return <hasMessages>>false</hasMessages> and the /next endpoint will return 404 NOT FOUND.

### 3.3. Details of messages that can be retrieved from the Customs office of export

#### 3.3.1. IE528 Message

The IE528 message can be retrieved by the Declarant/Representative, via system-to-system, following acceptance of the declaration registered by the Declarant/Representative via the IE515 message.

According to the message identification mechanism detailed in Chapter 1.1.Message and sender identification, the IE528 message will have in its component the <correlationIdentifier> property, having the same value as the <messageIdentification> property present on the IE515 message for which the AES application generated the IE528 message.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.2. IE529 Message

The IE529 message can be picked up by the Declarant/Representative, via system-to-system, after sending the declaration (registered by the Declarant/Representative via IE515 message) from the Customs office of export to the Customs office of exit

According to the message identification mechanism detailed in chapter 1.1.How to identify messages and their senders, the IE529 message will have in its component the <correlationIdentifier> property, having the same value as the <messageIdentification> property present on the IE515 message for which the AES application generated the IE529 message.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices  
The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.3. IE599 Message

The message can be retrieved by the Declarant/Representative at the Customs office of export and represents an export notification of confirmation of exit of the goods from the customs territory of the European Union.

According to the message identification mechanism detailed in chapter 1.1.How to identify messages and their senders, the IE599 message will have in its component the <correlationIdentifier> property, having the same value as the <messageIdentification> property present on the IE515 message for which the AES application generated the IE599 message.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.4. IE560 Message

The message can be retrieved by the Declarant/Representative from the Customs office of export and is the notification of the export control decision.

According to the message identification mechanism detailed in chapter 1.1.Message and sender identification, the IE560 message will have in its

component the <correlationIdentifier> property, having the same value as the <messageIdentification> property present on the IE560 message for which the AES application generated the IE560 message.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.5. IE551 Message

The message can be retrieved by the Declarant/Representative at the Customs office of export and represents the rejection of the release of the export operation.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.6. IE504 Message

The message can be retrieved by the Declarant/Representative at the Customs office of export and represents acceptance of the request to amend the customs export declaration.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.7. IE509 Message

The message can be retrieved by the Declarant/Representative at the Customs office of export and represents the decision to invalidate the Customs export declaration.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.8. IE556 Message

The message can be retrieved by the Declarant/Representative at the Customs office of export and represents a rejection message from the Customs office of export.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

### 3.3.9. IE531 Message

The message can be retrieved by the Declarant/Representative from the Customs office of export and is a notification that the time limit for submitting the supplementary declaration has expired.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

## 3.4. Details of messages that can be retrieved from the Customs Office of Exit

### 3.4.1. IE525 Message

The message can be retrieved by the Trader at exit from the Customs Office of Exit and represents the exit clearance notification.

According to the message identification mechanism detailed in Chapter 1.1.Message and sender identification, the IE525 message will have in its component the <correlationIdentifier> property, having the same value as the <messageIdentification> property present on the IE507 message for which the AES application generated the IE525A message.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

#### 3.4.2. IE590 Message

The message can be retrieved by the Trader at exit from the Customs Office of Exit and represents the exit notification for the physical exit of goods from the customs territory of the European Union.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application.**

#### 3.4.3. IE557 Message

The message can be retrieved by the Trader on exit from the Customs Office of Exit and represent the rejection message from the Customs Office of Exit.

The XSD diagrams of the messages can be found in Chapter 5 - Appendices

The diagrams of message transmission between the actors involved in the system-to-system integration can be consulted in **Chapter 2 - Detailing web services for sending messages in XML format to the AES-RO application..**

## 4. Technical structure of the messages

The technical structures of the messages can be found in XSD format in the archive delivered as an appendix.

All messages contain the syntax to include other standard XSDs, included in all messages. The inclusion syntax is:

```
<xs:include schemaLocation="ctypes.xsd" />
```

```
<xs:include schemaLocation="htypes.xsd" />
```

```
<xs:include schemaLocation="ftypes.xsd" />
```

```
<xs:include schemaLocation="stypes.xsd" />
```

<xs:include schemaLocation="EvaluationNoteSG.xsd" /> and is equivalent to including the contents of ctypes.xsd, htypes.xsd, ftypes.xsd, stypes.xsd, EvaluationNoteSG.xsd in the file containing it.



## 5. Appendices

- 5.1. Annex 1 - XSD\_SCHEMES\_XSD\_ND\_AESRO.zip - contains the XSD schemas of the described messages.
- 5.2. Anexa2\_Detalii\_Mesaje\_Reguli\_ND\_AESRO.xlsx - contains details about the messages structure and content, completion rules, messages validation.