eTIR web services - Messages I1-I2

I1 - Accept guarantee / I2 - Acceptance results

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1. Document revision note

This document has been published on **04/01/2021**, and is valid for the **eTIR international system version 1.0** based on the **eTIR specifications version 4.3a**.

Please ensure you get the latest version of this document from the eTIR documentation portal or contact the eTIR service desk (Support and contact).

2. Related documents

Project documents and collaboration platform

- eTIR documentation portal: https://wiki.unece.org/display/ED/eTIR+documentation+-+Homepage
- Project guidelines for customs to connect to the eTIR international system : https://wiki.unece.org/download/attachments/106299939/Project%20Guidelines%20for%20customs%20to%20connect%20to%20the%20eTIR%20international%20system.pdf
- eTIR web services - Introduction document: https://wiki.unece.org/download/attachments/106299935/eTIR%20web%20services%20-%20Introduction%20document.pdf
- eTIR web services - Messages I5-I6: I5 - Query guarantee / I6 - Query results https://wiki.unece.org/download/attachments/106299935/eTIR-IS-I5-I6-messages-documentation.pdf
- eTIR web services - Messages I7-I8: I7 - Record declaration data / I8 - Record declaration data results https://wiki.unece.org/download/attachments/106299935/eTIR-IS-I7-I8-messages-documentation.pdf

Legal framework

- TIR Convention handbook: https://unece.org/transport/publications/tir-handbook-0
- Annex 11 to the TIR Convention: http://www.unece.org/fileadmin/DAM/trans/bcf/ac2/documents/2020/ECE-TRANS-WP30-AC2-147e.pdf#page=12

eTIR specifications

- Introduction to the eTIR conceptual, functional and technical v4.2: http://www.unece.org/fileadmin/DAM/trans/bcf/adhoc/conc_tech/documents/id17-05e.pdf
- eTIR concepts v4.2: http://www.unece.org/fileadmin/DAM/trans/bcf/adhoc/conc_tech/documents/id17-06e.pdf
- eTIR Functional specifications v4.2: http://www.unece.org/fileadmin/DAM/trans/bcf/adhoc/conc_tech/documents/id17-07e.pdf
- Approved amendments to the eTIR specifications v4.2 to prepare v4.3: http://www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2020/ECE-TRANS-WP30-2020-07e.pdf

Additional resources

- eTIR XML schemas: https://wiki.unece.org/display/ED/Technical+artefacts
- eTIR code lists: https://www.unece.org/fileadmin/DAM/trans/bcf/eTIR/documents/CodeLists0_4.pdf
- List of eTIR focal points: https://unece.org/list-etir-focal-points

3. Purpose

This document describes the **I1 - Accept guarantee** request message, and the **I2 - Acceptance results** response message of the eTIR international system web services. It provides all the specifics required to use them (prepare or receive), explains how and when they should be used and explains the error codes that may be returned. It also contains examples and fallback procedures, if applicable.

4. Target audience

This guide is intended for the customs authorities ICT teams in charge of interconnecting their national customs systems to the eTIR international system.

5. Prerequisites

In order to ensure an implementation that delivers the best value and services to the customs authorities, we recommend for the ICT team in charge of establishing the connection to the eTIR international system web services to be accompanied by a TIR subject matter expert.

This document is to be read after having an understanding of the eTIR concepts and having read the eTIR functional specifications. It is highly recommended keeping the eTIR web services introduction document at hand as the current document refers to many elements and diagrams available in that document.

From a technical perspective, the following steps should have been completed at this point:

- A secured connection to the User Acceptance Testing (UAT) environment of the eTIR international system is established;

- The endpoint URL to the UAT environment is clearly identified and properly configured in the national customs systems;

- All the actions mentioned in the prerequisites section of the eTIR web services introduction document are performed;

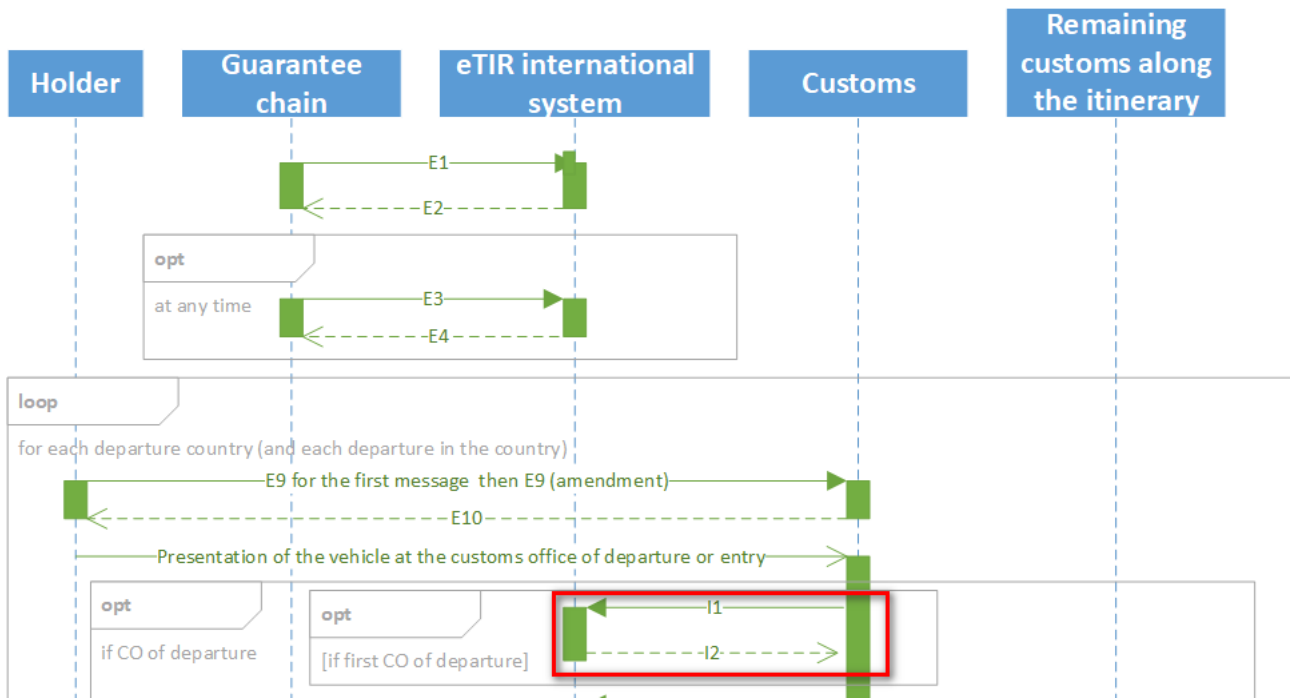- All the tools required to prepare, receive, test and troubleshoot the messages are ready.

All eTIR messages are identified and belong to a flow described in the eTIR sequence diagrams section of the eTIR web services introduction document. It is key to respect this sequencing, otherwise the eTIR international system will return errors due to invalid sequencing of the messages as described in the dedicated eTIR error code web page.

6. "I1 - Accept guarantee" / "I2 - Acceptance results" messages

6.1. Sequence diagram

The following sequence diagram highlights the role and sequence position of the **I1 - Accept guarantee** and **I2 - Acceptance results** messages in the context of a TIR departure operation.
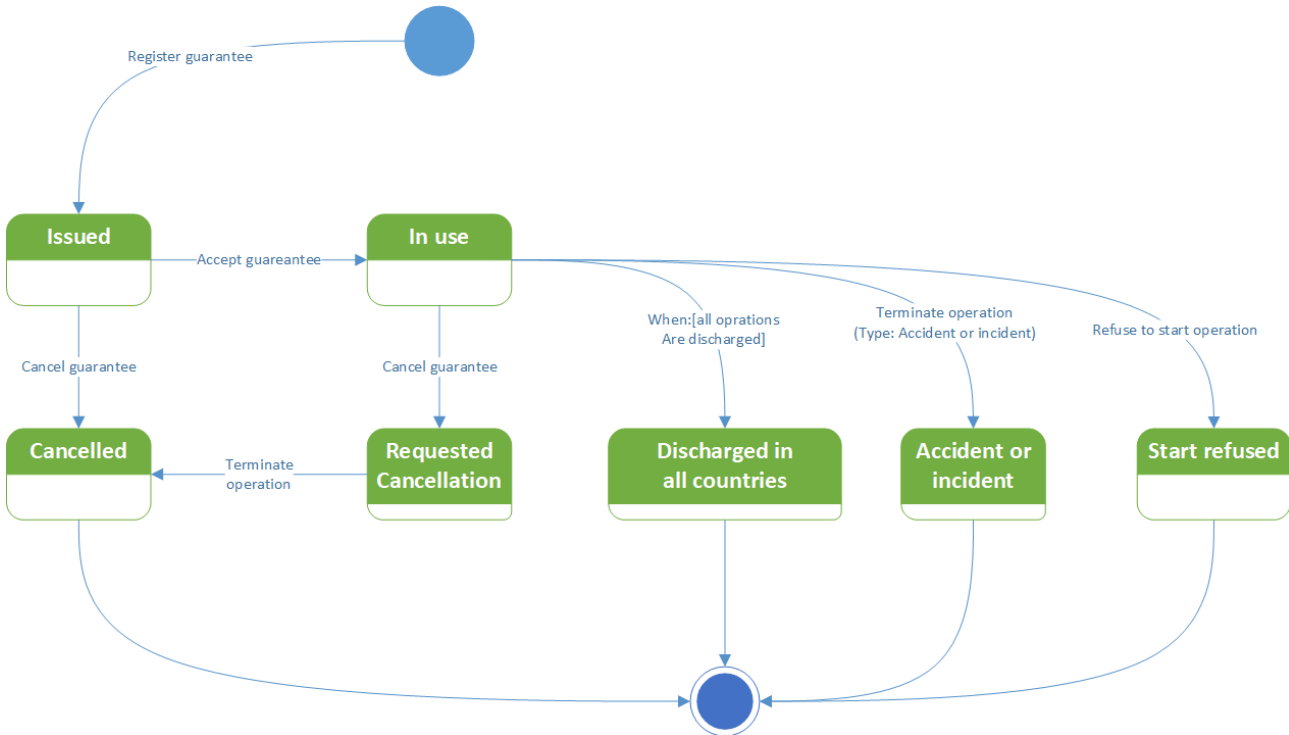

ℹ️ The full eTIR sequence diagrams (Departure, Transit and Destination) are available in the dedicated section of the eTIR web services introduction document.

6.2. Message context

The **I1 - Accept guarantee** message is mandatory before starting a TIR transport and should be prepared and sent after the presentation of the road vehicle, the combination of vehicles or the container at the customs offices of departure and after the transported goods have been inspected, checked against the advance TIR data, and the seals affixed.

The guarantee can have different states and it is important to be aware of its life cycle, the figure below outlines them. For more information please refer to the eTIR specification section dedicated to the guarantee if you need more information.

6.2.1. Message prerequisites

In order for this message to be properly interpreted by the eTIR international system, the following messages should have been exchanged before this one:

- **E1 - Register guarantee** and **E2 – Registration results** (between the guarantee chain and the eTIR international system): the eGuarantee that was purchased by the holder must be firstly registered by the guarantee chain to the eTIR international system so it is known and usable in the system.

- **E9 - Advance TIR data** and **E10 - Advance TIR data results** (between the TIR carnet holder and the national customs system): the holder will send to the customs office of departure the advance TIR data that acts as the pre-declaration for the transport.

6.2.2. Endpoint URL

The URL of the endpoint to use when sending the I1 - Accept guarantee request message is: **https://etir-uat-01.unece.org/etir/v4.3/customs/acceptGuarantee**

Also note that the WSDL can be accessed at the following URL: **https://etir-uat-01.unece.org/etir/v4.3/customs/acceptGuarantee?wsdl**

6.3. "I1 - Accept guarantee" request message

6.3.1. Description

The national customs systems sends the **I1 - Accept guarantee** request message to the eTIR international system confirming that the guarantee has been accepted by the customs authorities.

The XSD file related to the **I1 - Accept guarantee** message is available at the following URL: https://wiki.unece.org/download/attachments/106299941/WCO_eTIR_I1_1.xsd.

6.3.2. Field list

eTIR field name	Mapping to the XML element (XPATH)	Mandatory	Format	Code lists	Conditions	Rules	WCO ID
MESSAGE							75B
├ Message function, coded	Function	R	n..2	CL16			017
├ Message identifier	ID	R	an..70				D014
├ Type, coded	TypeCode	R	an..3	CL26			D013
└┬ GUARANTEE	ObligationGuarantee	R					90A
├ Acceptance date	ObligationGuarantee/AcceptanceDateTime	R	an..35				023
├ Reference	ObligationGuarantee/ReferenceID	R	an..35				100
├ Guarantee type, coded	ObligationGuarantee/SecurityDetailsCode	R	an..3	CL12			101
├┬ GUARANTEECHAIN	ObligationGuarantee/Surety	R					19B
│ └ Code	ObligationGuarantee/Surety/ID	R	an..35				R055
└┬ HOLDER	ObligationGuarantee/Principal	R					28B
└ Code	ObligationGuarantee/Principal/ID	R	an..35				R002

6.3.3. Field descriptions

eTIR field name	Mapping to the XML element (XPATH)	Description	Usage
MESSAGE			
├ Message function, coded	Function	Code describing the function of the message	The value should be set to '9' (Original)
├ Message identifier	ID	Unique identifier of the message	The value should be a Globally Unique Identifier (GUID) as detailed in the dedicated section of the introduction document

eTIR field name	Mapping to the XML element (XPATH)	Description	Usage
├ Type, coded	TypeCode	Code of the message type	The value should be set to either "I1" or "I2" depending on the message
└─ GUARANTEE	ObligationGuarantee	Class representing the guarantee of this TIR transport	
├ Acceptance date	ObligationGuarantee/AcceptanceDateTime	Date indicating that a document has been or will be accepted in accordance with governmental legislation.	The value should be a date to be provided following the EDIFACT 208 format CCYYMMDDHHMMSSZHHMM (http://www.unece.org/trade/untdid/d13b/tred/tred2379.htm). For Example: 20200820145600+0100 represents 20 August 2020 at 14:56 UTC+01:00.
├ Reference	ObligationGuarantee/ReferenceID	Unique identifier of the guarantee being accepted	The value should be the unique identifier of the guarantee for this TIR transport
├ Guarantee type, coded	ObligationGuarantee/SecurityDetailsCode	Code of the guarantee type	This value should be from the Guarantee type code (eTIR) list, and should be retrieved from a query to the eTIR international system using the I5 - Query guarantee message
├─ GUARANTEECHAIN	ObligationGuarantee/Surety	Class representing the information related to the issuing guarantee chain (provinding guarantee for the TIR transport)	
│ └ Code	ObligationGuarantee/Surety/ID	Unique identifier of the guarantee chain which issued the guarantee	The value should be 'IRU' for guarantees issued by the International Road transport Union
└─ HOLDER	ObligationGuarantee/Principal	Class representing the TIR Carnet holder (transporter) of this transport	
└ Code	ObligationGuarantee/Principal/ID	Unique identifier of the TIR Carnet holder	The value should be the unique identifier of the TIR Carnet holder as recorded in the International TIR Data Bank (ITDB)

⚠ When reading the values of the second columns for both tables, note that the "InterGov/" XML base element has been removed to improve the readability, as it is repeated on every line.

6.3.4. Referred code lists

The following code lists are referred to in the field lists and should be considered when sending the message:

- CL12 - Guarantee type code (eTIR)
- CL16 - Message function code (UN/EDIFACT 1225)
- CL26 - Message types (eTIR)

> ℹ️ All code lists are described in the eTIR code lists document.

6.3.5. Example

The example below shows the XML data to be sent via POST method to the endpoint URL to request the guarantee **XF95001234** (of type **Z**) issued by the guarantee chain **IRU** for the TIR carnet holder **FRA/020/998** on the date of **2019/07/23** when the guarantee needs to be accepted.

I1 - Accept guarantee request message

```xml
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:cus="etir:v4.3:customs" xmlns:etir=
"etir:I1:v4.3">
  <soap:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
    (...)
    <wsa:Action>etir:v4.3:customs/acceptGuarantee</wsa:Action>
    <wsa:MessageID>uuid:8a20af11-8170-495d-9563-6a89b32ef745</wsa:MessageID>
    (...)
  </soap:Header>
  <soap:Body xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id=
"id-4eed340a-58d8-4d4d-b1b9-e9b94ba4baf1">
    <cus:acceptGuarantee>
      <etir:InterGov>
        <etir:FunctionCode>9</etir:FunctionCode>
        <etir:ID>b90e18ab-4595-4f64-bfac-e063fdb0b25b</etir:ID>
        <etir:TypeCode>I1</etir:TypeCode>
        <etir:ObligationGuarantee>
          <etir:ReferenceID>XF95001234</etir:ReferenceID>
          <etir:AcceptanceDateTime>2019/07/23</etir:AcceptanceDateTime>
          <etir:SecurityDetailsCode>Z</etir:SecurityDetailsCode>
          <etir:Surety>
            <etir:ID>IRU</etir:ID>
          </etir:Surety>
          <etir:Principal>
            <etir:ID>FRA/020/998</etir:ID>
          </etir:Principal>
        </etir:ObligationGuarantee>
      </etir:InterGov>
    </cus:acceptGuarantee>
  </soap:Body>
</soap:Envelope>
```

> ⚠️ Some field original contents have been shortened (**…**) in this document for the sake of readability, in particular the whole **header/security** content that is described in the eTIR web services introduction document.

6.4. "I2 - Acceptance results" response message

6.4.1. Description

The eTIR international system sends back the **I2 - Acceptance results** response message to the national customs systems to confirm the correct reception and recording of the acceptation of the guarantee.

The XSD file related to the **I2 - Acceptance results** message is available at the following URL: https://wiki.unece.org/download/attachments/106299941/WCO_eTIR_I2_1.xsd.

6.4.2. Field list

eTIR field name	Mapping to the XML element (XPATH)	Mandatory	Format	Code lists	Conditions	Rules	WCO ID
MESSAGE							75B
├ Message function, coded	Function	R	n..2	CL16			017
├ Functional reference	FunctionalReferenceID		an..70				D026
├ Message identifier	ID	R	an..70				D014
├ Type, coded	TypeCode	R	an..3	CL26			D013
├┬ ERROR	Error	D			C006		53A
│ ├ Error, coded	Error/ValidationCode	R	an..8	CL99			377
│ └┬ POINTER	Error/Pointer	R					97A
│ ├ Sequence number	Error/Pointer/SequenceNumeric	R	n..5				006
│ └ Location	Error/Pointer/Location	R	an..512				512
└┬ GUARANTEE	ObligationGuarantee	R					90A
└ Reference	ObligationGuarantee/ReferenceID	R	an..35				100

6.4.3. Field descriptions

eTIR field name	Mapping to the XML element (XPATH)	Description	Usage
MESSAGE			
├ Message function, coded	Function	Code describing the function of the message	The value should be "44" (Accepted without reserves) if the request was processed correctly. If at least one error is described in this message, the value should be"27" (Not accepted)

eTIR field name	Mapping to the XML element (XPATH)	Description	Usage
├ Functional reference	FunctionalReferenceID	Unique identifier of the request message associated with this response	The value should be the one mentioned in the message identifier field of the request message (I1)
├ Message identifier	ID	Unique identifier of the message	The value should be a Globally Unique Identifier (GUID) as detailed in the dedicated section of the introduction document
├ Type, coded	TypeCode	Code of the message type	The value should be set to either "I1" or "I2" depending on the message
├─ ERROR	Error	Class representing the list of errors, if any	
│ ├ Error, coded	Error/ValidationCode	Code of the error type	The value should be the code of the error from the list Error code (eTIR)
│ └─ POINTER	Error/Pointer	Class representing the pointer to the erroring field, if any	
│ ├ Sequence number	Error/Pointer/SequenceNumeric	Index of the error in the list	The value should be the 1-based index of the error in the list
│ └ Location	Error/Pointer/Location	Location of the erroring field	The value should be the location of the error field following the XPath syntax. Additional details regarding the location of the fields per error code are available on the page dedicated to errors
└─ GUARANTEE	ObligationGuarantee	Class representing the guarantee of this TIR transport	
└ Reference	ObligationGuarantee/ReferenceID	Unique identifier of the guarantee	The value should be the unique identifier of the guarantee for this TIR transport

⚠ When reading the values of the second columns for both tables, note that the "InterGov/" XML base element has been removed to improve the readability, as it is repeated on every line.

6.4.4. Referred code lists

The following code lists are referred to in the field lists and should be considered when sending the message:

- CL16 - Message function code (UN/EDIFACT 1225)
- CL26 - Message types (eTIR)
- CL99 - Error code (eTIR)

🛈 All code lists are described in the eTIR code lists document.

6.4.5. Conditions and Rules

The following conditions of the eTIR conditions list are referred to in the field lists and should be considered in the message:

- **C006:** IF(MESSAGE.Message function, coded) = '6' OR '11' OR '44' OR '45'
  THEN EMPTY(ERROR)
  ELSE
  IF(MESSAGE.Message function, coded) = '10' OR '27'
  THEN NOT EMPTY(ERROR)

6.4.6. How to use response data in the national customs systems

The eTIR international system will return whether there were errors while processing the request message by filling in the "Error" list. Therefore, and as for all response messages expected from the eTIR international system, the first step when parsing the **I2 - Acceptance results** response message should always be to look for potential error elements in the response message and address them accordingly as mentioned in the Error Management section of the Introduction document.

If there are no errors listed in the response message, check that the reference of the guarantee that has been recorded as accepted in the eTIR international system is indeed the same as the one mentioned in the **I1 - Accept guarantee** message that you sent. If it's not the case, then you should contact the eTIR support (see Support and contact) to report this issue so that it can be investigated as soon as possible.

If there was no error, and the response message content is as expected, the next step for the national customs systems is to send the declaration data to the eTIR international system using the **I7 - Record declaration data** message.

6.4.7. Applicable error codes

As the eTIR international system may return error codes, the eTIR web services introduction document contains a dedicated section describing how and where to find those error codes in the response messages. Find below the list of error codes that may be returned as part of the **I2 - Acceptance results** response message as well as the recommended actions to address them:

100 - Invalid Message

Kindly check the message itself and its format as it is not recognized by the eTIR international system.

101 - Missing Parameter

Kindly check the message parameters, in particular the parameters marked as mandatory in the message description section of this document, and make sure that all mandatory parameters are

part of the message.

102 - Invalid Domain Value Parameter

Kindly check the coded parameter, its values and corresponding code lists. Make sure that each coded parameter is using one of the values of the corresponding code list.

105 - Parameter length exceeded

Kindly check the parameter value lengths. Make sure that each parameter length does not exceed the max length as defined in the documentation in the Format column.

200 - Invalid State

Kindly check the state of the referred object (transport, guarantee, …) and make sure it is consistent with the eTIR international system requested web service called.

201 - Guarantee not acceptable

Kindly check the state of the guarantee you tried to accept, and make sure it is conform the workflow described in the guarantee state diagram.

300 - Invalid Operation

Kindly check the message content as it triggered a technical error in the eTIR international system but that this one could not identify the source of the issue.

301 - Guarantee not found

Kindly check the value of the guarantee reference ID in the message and make sure it matches the value received in previous messages.

302 - Guarantee chain not found

Kindly check the value of the guarantee chain ID in the message and make sure it matches the value received in previous messages.

303 - Guarantee type not found

Kindly check the value of the guarantee type in the message and make sure it belongs to the Guarantee type code (eTIR) code list, and that it matches the value received in previous messages.

320 - Holder/Guarantee mismatch

Kindly check the format and value of the TIR carnet holder in the message and make sure it matches the value received in previous messages. If it does, kindly check the existence of the holder and its status using either eTIR I3 - Get holder information message, ITDB dedicated web services or ITDB web application.

330 - Guarantee chain not authorized

Kindly check the value of the guarantee chain ID in the message and make sure it matches the value received in previous messages.

331 - Guarantee chain/Guarantee mismatch

Kindly check the value of the guarantee chain ID in the message and make sure it matches the value received in previous messages.

332 - Guarantee type/Guarantee mismatch

Kindly check the value of the guarantee type ID in the message and make sure it matches the value received in previous messages.

400 - eTIR Problem

Kindly contact eTIR support (see Support and contact) sending the content of the message communicated, the timestamps and the steps to reproduce this issue in order to address this issue.

The full list of error codes can be found on the dedicated error code list web page.

6.4.8. Example

The example below shows the XML data of the **I2 - Acceptance results** message received in response to the POST of the **I1 - Accept guarantee** message. This response message (Function code **44**) of the type **I2** defines it as (guarantee) acceptance result message for the guarantee reference ID **XF95001234**. It contains no error codes, therefore it should be considered that the guarantee is accepted.

It is important to understand that the absence of error in the **I2 - Acceptance results** response message is the key indicator to reflect that the guarantee is accepted.

I2 - Acceptance results response message

```xml
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:cus="etir:v4.3:customs" xmlns:etir=
"etir:I2:v4.3">
  <soap:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
    (...)
    <wsa:Action>etir:v4.3:customs/acceptGuaranteeResponse</wsa:Action>
    <wsa:MessageID>uuid:8a20af11-8170-495d-9563-6a87e32ef745</wsa:MessageID>
    (...)
  </soap:Header>
  <soap:Body xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id=
"id-4eed340a-58d8-4d4d-b1b9-e9b94ba4ba32">
    <cus:acceptanceResults>
      <etir:InterGov>
        <etir:FunctionCode>44</etir:FunctionCode>
        <etir:FunctionalReferenceID>b90e18ab-4595-4f64-bfac-e063fdb0b25b</etir:FunctionalReferenceID>
        <etir:ID>133d517e-be4b-422e-9251-03d55fbc7af8</etir:ID>
        <etir:TypeCode>I2</etir:TypeCode>
        <etir:ObligationGuarantee>
          <etir:ReferenceID>XF95001234</etir:ReferenceID>
        </etir:ObligationGuarantee>
      </etir:InterGov>
    </cus:acceptanceResults>
  </soap:Body>
</soap:Envelope>
```

Some field original contents have been shortened (**…**) in this document for the sake of readability, in particular the whole **header/security** content that is described in the eTIR web services introduction document.

7. Fallback procedures

In the event that the **I1 - Accept guarantee** could not be sent after several attempts or if no **I2 - Acceptance results** was received in response, we recommend the national customs systems team to contact eTIR support (Support and contact).

Also note that the functional fallback procedures can be found in the Approved amendments to the eTIR conceptual, functional and technical documentation.

8. Support and contact

Kindly note that in the context of the interconnections projects by customs, the TIR secretariat stands ready to assist contracting parties while interconnecting their national customs systems to the eTIR international system. Also, in case of questions or issues related to this document or to the eTIR international system, you can use the contact details below (contacts by email should be preferred).

Organization	United Nations Economic Commission For Europe TIR secretariat Palais des Nations, 1211 Geneva 10, Switzerland
Contact	Email: etir@un.org Phone: +41 (0)22 917 55 06

9. Version history

Date	Author	Version	Notes	eTIR specification version reference
08/10/2020	TIR Secretariat	1.0	Initial draft	4.3a
23/11/2020	TIR Secretariat	1.1	Updated several parts with the submission of this guide for the WP.30/GE.1 session on January 2021	4.3a
04/01/2021	TIR Secretariat	1.2	Updated wording in message field descriptions and usages	4.3a