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**e-TrustEx – Synchronous service Use Case Specification**

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# Use Case description

This Use Case describes the synchronous services offered by the e-TrustEx platform. A synchronous service is a service for which the request and response are passed synchronously and no processing is done asynchronously. These types of services can vary from read service (Inbox Request, Retrieve Request) to synchronous operations like storing or deleting of document wrappers.

This Use Case includes other Use Cases that correspond to the generic components (e.g. components that do authentication, validation) and is extended by other Use Cases that describe the business document specific processing.

# Flow of events

# Basic flow – Read service

# System receives the message

This use case starts when the user submits a message to the SOAP Entry point. In case the User is outside of EC internal network, this opens an https connection between the User and the System.

# System routes the message to the right channel and transforms the message

* The message is routed to the synch processing message channel;
* The system performs following checks based on the information carried in the HTTP request and the SOAP message

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Description | Element path | Severity | Category | Subcategory |
| RULE60 | Payload type validation. | N/A | Hard | Message body check | Payload type |
| RULE264 | SOAP body service validation. The system validates element against the service type expected by the service. | N/A | Hard | Message body check | Payload type |

* The system transforms the message in the e-TrustEx structure

# System authenticates the User

* The systems authenticates the User;
* At this step include [UC1\_15\_1 User Access Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_15_1%20User+Access+Use+Case+Specification.docx);

# System performs the validation

* The system perform the necessary validation;
* At this step include the Validation Use Case for the submitted business document, in particular the section “Synchronous validation“. The right Validation Use Case for the business document is presented in the table Table. 1 Business Document, Validation Use Case and specific Use Case

# System performs the business specific processing

* Based on the business document type, the system performs the business specific processing;
* The “Table. 1 Business Document, Validation Use Case and specific Use Case” summarizes the types of business documents supported by e-TrustEx and the corresponding Use Case that extends this Use Case;
* At this step, the current Use Case is extended by the specific Use Case; (e.g. [UC1\_6\_1 Submit Status Request Use Case Specification.docx](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_6_1.Submit+Status+Request+Use+Case+Specification.docx) )

# System prepares the response

* Based on request parameters, the system creates the response;
* The response is returned to the Requester;
* **Use Case ends.**

# Basic flow – Operation service

# System receives the message

* This use case starts when the user submits a message to the Entry point;

# System acknowledges the message

* The system creates the technical acknowledgment and sends it back to the Requester.
* The acknowledgement is digitally signed and contains the following information:

|  |  |
| --- | --- |
| **Element** | **Xpath** |
| **SOAP Body** | |
| **AckIndicator** | *AckIndicator – Boolean value* |
| **Timestamp** | *The timestamp, used to offer long-term and independent proof that the information existed at a particular point in time and has not been altered since and can be expressed as :*   * *A digital signature* * *RFC3161TimeStampToken* |
| **IssueDate** | *In the case where a Timestamping Authority is not available, the IssueDate is present instead of the Timestamp. The IssueDate is the system date of reception.* |
| **ID of the message** | *AcknowledgedDocumentReference.DocumentReference.ID* |
| **DocumentTypeCode** | *AcknowledgedDocumentReference.DocumentReference.DocumentTypeCode ( e.g. “BDL”)* |
| **SenderPartyID** | *AcknowledgedDocumentReference.DocumentReference.SenderParty.EndpointID – the Sender Party ID from the business header* |
| **ReceiverPartyID** | *AcknowledgedDocumentReference.DocumentReference.ReceiverParty.EndpointID - the Receiver Party ID from the business header* |

# System authenticates the User

* The systems authenticates the User;
* At this step include [UC1\_15\_1 User Access Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_15_1%20User+Access+Use+Case+Specification.docx);

# System performs the validation

* The system perform the necessary validation;
* At this step include the Validation Use Case for the submitted business document, in particular the section “Synchronous validation“. The right Validation Use Case for the business document is presented in the table Table. 1 Business Document, Validation Use Case and specific Use Case

# System performs the business specific processing

* Based on the business document type, the system performs the business specific processing;
* The “Table. 1 Business Document, Validation Use Case and specific Use Case” summarizes the types of business documents supported by e-TrustEx and the corresponding Use Case that extends this Use Case;
* At this step, the current Use Case is extended by the specific Use Case; (e.g. [UC1\_5\_1 Submit Store Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_5_1.Submit+Store+Document+Wrapper+Use+Case+Specification.docx))
* The Use Case ends.

# Exceptional flows

### E1 at Step “2.1.2 System routes the message to the right channel and transforms the message” and the system is down

* The User receives a 503 Service Unavailable or Connection Refused;
* The Use Case ends.

### E2 at Step “2.1.2 System routes the message to the right channel and transforms the message” and the message body does not contain only one direct child element

* System submits a SOAP Fault [5] with the following description: “Undefined operation”;
* This closes the https connection between the User and the system;
* The Use Case ends.

### E3 at Step “2.1.2 System routes the message to the right channel and transforms the message” and the operation XML wrapper element does not contain one and only one element

* System submits a SOAP Fault [7];
* This closes the https connection between the User and the system;
* The Use Case ends.

### E4 at Step 2.1.4 and 2.2.4 ”System performs the validation” and an error occurs

* The errors are described in the specific “Validation Use Case”, section “2.Errors” (see Table 1 Business Document, Validation Use Case and specific Use Case).

### E5 at Step 2.2.2 “System acknowledges the message” and a technical error is reported

* The system detects when a sender closes its connection. In this case the system cannot respond to the subsequent request;
* The Use Case continues at the next step.

### E6 at Step 2.1.4 and 2.2.4 ”System performs the validation””

* The errors are described in the specific “Validation Use Case”, section “2.Errors” (see Table 1 Business Document, Validation Use Case and specific Use Case).

### E7 at Step 2.1.5 and 2.2.5 ”System performs the business specific processing“ and an error occurs

* The errors are described in the specific Use case per business document (see Table 1 Business Document, Validation Use Case and specific Use Case).

### E8 For all the steps when a technical failure is reported

* In case of a technical failure, a SOAP fault is generated;
* The Use Case ends.

# Special Requirements

N/A.

# Preconditions

N/A.

# Post conditions

N/A.

# Additional Information

Table 1 Business Document, Validation Use Case and specific Use Case

|  |  |  |
| --- | --- | --- |
| Business document | Validation Use Case | Specific Use Case |
| (Store)DocumentWrapper | [UC1\_5\_2 Validation Store Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_5_2.Validation+Store+Document+Wrapper+Use+Case+Specification.docx) | [UC1\_5\_1 Submit Store Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_5_1.Submit+Store+Document+Wrapper+Use+Case+Specification.docx) |
| Status Request | [UC1\_6\_2 Validation Status Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_6_2.Validation+Status+Request+Use+Case+Specification.docx) | [UC1\_6\_1 Submit Status Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_6_1.Submit+Status+Request+Use+Case+Specification.docx) |
| View Request | [UC1\_7\_2 Validation View Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_7_2.Validation+View+Request+Use+Case+Specification.docx) | [UC1\_7\_1 Submit View Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_7_1.Submit+View+Request+Use+Case+Specification.docx) |
| Validation Request | [UC1\_8\_2 Validation Retrieve Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_8_2.Validation+Retrieve+Request+Use+Case+Specification.docx) | [UC1\_8\_1 Submit Retrieve Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_8_1.Submit+Retrieve+Request+Use+Case+Specification.docx) |
| Retrieve Document Wrapper | [UC1\_9\_2 Validation Retrieve Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_9_2.Validation+Retrieve+Document+Wrapper+Use+Case+Specification.docx) | [UC1\_9\_1 Submit Retrieve Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_9_1.Submit+Retrieve+Document+Wrapper+Use+Case+Specification.docx) |
| Query Request | [UC1\_10\_2 Validation Query Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_10_2.Validation+Query+Request+Use+Case+Specification.docx) | [UC1\_10\_1 Submit Query Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_10_1.Submit+Query+Request+Use+Case+Specification%20.docx) |
| Delete Document Wrapper | [UC1\_11\_2 Validation Delete Document Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_11_2.Validation+Delete+Document+Wrapper+Use+Case+Specification.docx) | [UC1\_11\_1 Submit Delete Wrapper Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_11_1.Submit+Delete+Wrapper+Use+Case+Specification.docx) |
| Inbox Request | [UC1\_12\_2 Validation Inbox Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_12_2.Validation+Inbox+Request+Use+Case+Specification.docx) | [UC1\_12\_1 Submit Inbox Request Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_12_1.Submit+Inbox+Request+Use+Case+Specification.docx) |
| Retrieve Interchange Agreement | [UC1\_13\_2 Validation Retrieve Interchange Agreement Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_13_2.Validation+Retrieve+Interchange+Agreement+Use+Case+Specification.docx) | [UC1\_13\_1 Submit Retrieve Interchange Agreement Use Case Specification](https://webgate.ec.europa.eu/CITnet/svn/ETRUSTEX/trunk/001%20e-TrustEx/002%20Requirements/Use%20Case%20Model/UC1_13_1.Submit+Retrieve+Interchange+Agreement+Use+Case+Specification.docx) |

Table 2 Generic unicity check of the message

|  |  |  |  |
| --- | --- | --- | --- |
| DocumentType | ID | Description | Severity |
| DocumentWrapper | **RULE283** | DocumentWrapper.ID  Must not have been sent previously by the same SenderParty.  A document wrapper is uniquely identified by its ID, Type, SenderParty. | Hard |