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**e-TrustEx – Submit Read Document Use Case Specification**

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| [1] | [06/21/2013] | [Alice Vasilescu] | [Initial Version of approved document] |
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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 submit Store Document Wrapper.

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

## B1: Basic Flow for SOAP Entry point

## 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 write 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 and performs the checks based on the configuration settings (e.g. Message size check);

## System authenticates the User

* The systems authenticates the User;
* At this step include “User Access” Use Case;

## 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 “” 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. Submit+Document+Bundle+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.**

## B2: Basic Flow for JAXWS Entry point

## System receives the message

* This use case starts when the user submits a message to the JAXWS 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* |
| **DocumentHashMethod** | *AcknowledgedDocumentReference.**DocumentHashMethod – the hash method used to hash the received message* |
| **DocumentHash** | *AcknowledgedDocumentReference.**DocumentHash – the hash value of the received message* |
| **DocumentCanonicalizationMethod** | *AcknowledgedDocumentReference.**DocumentCanonicalizationMethod – the canonicalization method used before the hashing of the received message* |

## System stores binary

* The system creates a BINARY object with the following data:
* The binary content of the DocumentWrapper.ResourceInformationReference.LargeAttachement
* The date when the object was created
* The Use Case resumes at step 2.3.

# Subflows

### S1 Persist message upon failure

* The system creates a unique ERROR object in its repository;
* The system creates a message of type ERROR and records the following information:
* The date and time when the message was created;
* Original format (a.k.a. Application Response);
* Associations with :
* The ID of the SenderParty (Header.BusinessHeader.Sender.Identifier);
* The ID of the ReceiverParty (Header.BusinessHeader.Receiver.Identifier);
* The Sender user;
* The Receiver user;
* Regarding the document which failed during the validation process:
* If available, the ID of the document is added;
* Its DocumentTypeCode is added;
* The Issue Date of the document is added;
* The read flag is set to "FALSE";
* The status of the message to which the ERROR object is linked is set to “ERROR.

# Exceptional Flows

### E1 at Step and the system is down

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

### E2 at Step 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 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

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

### E5 at Step and the message was already submitted

* The system performs subflow ;
* The following parameters are added to the Application Response:
* A Response Code is added "DocumentTypeCode”+”:”3"
* Use Case Ends
* A Description may be added.
* The Use Case ends.

### E6 at Step 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.

### E7 at Step

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

### E8 at Step

* The errors are described in the specific Use case per business document (see ).

### E9 For all the steps when a technical failure is reported

* This case happens in case of a technical failure and is reported through the system's ErrorHandler. The system enqueues the error queue;
* The system administrator needs to take action;
* The Use Case ends.

# Special Requirements

## < Interface(s) with other Systems >

## < Security Requirements >

## < Other Special Requirement >

# Preconditions

## < Precondition One >

# Postconditions

## < Postcondition One >

# Additional Information

# Business Document, Validation Use Case and specific Use Case

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.docx> | <UC1_5_1.Submit+Store+Document+Wrapper+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 |
|  |  |  |  |