eHealth platform – G19 report

Hub service "declareTransaction" : functional description

Version	Date	Description
1.0	30/07/2010	First release hub – metahub system.

Introduction

This document aims to provide the *functional description* of the service 'declareTransaction' that should be provided by each hub to its clients (hospitals, GP server, etc.).

The description is limited to functional elements: purpose, business XML messages. Pragmatic considerations such as security and WSDL descriptions are out-of-scope of this document. The description does not include the overall usage conditions that have to be implemented by the hubs (e.g. regarding the legal aspects).

This document is a part of KMEHR specification. (https://www.ehealth.fgov.be/standards/kmehr/)

The document is structured as follows:

- We first provide a 'functional description' of the service (purpose, input and output parameters independently of their XML representation …).

- We then translate this functional description into a KMEHR service (i.e. we describe the excepted input and output messages)

This document does not contain any XML example. Those examples are available on the kmehr site.

1 Functional description

Service name	declareTransaction
Purpose	This service should be used to declare a transaction within a hub.
Input parameters	- a minimal description of the transaction including - the identification of the patient P - types of transaction (at least a recognized type must be provided) - the identification of the transaction within the caller system - the author(s) A* (healthcare responsible(s) of the transaction); - the medical date and time of the transaction - the date and time DT of recording within the caller system - the sender S of the request, i.e. the healthcare party that performs the operation call - information about the request (id/date/time)
Output parameters	- the initial request - an acknowledge indicating the completion of the request - the identifier attributed by the hub to the transaction
Post-condition	- If there is no transaction with the provided identifier, the summary of the transaction is stored. - If this transaction is already recorded within the hub (according to the provided identification number) with a date and time anterior to DT, the transaction is updated and a new hub identifier is attributed to the transaction. The patient and the author(s) cannot be changed. *This roughly corresponds to a new version of this transaction*

Possible exceptions	- Technical error
	
	- Invalid data
	
	    - Invalid sender (according to the rules of the hub)
	
	    - Invalid patient identifier
	
	    - Invalid 'type of transaction' /no recognized type of transaction
	
	    - Invalid transaction identifier
	
	    - Invalid medical author
	
	- S is not accredited within the hub
	
	- S is not allowed to perform the operation according to the hub rules
	
	- There is no consent of the required type associated with P
	
	- A is not recognized within the hub
	
	- Not allowed update : patient or author changed

	- A more recent update has been performed
Comments	- **Identification of the patient**: we strongly recommend the use of the INSS number. However, at the request of some hubs, each hub may make the choice to use a local identification system for this service. Let us recall that all interhub exchanges will exclusively rely on the INSS number. - **About the "Sender"**: the sender must at least identify the organization responsible of the caller system. According to the hub implementation (e.g. regarding logging and access management), it could also identify the healthcare party corresponding to the end-user).

2 Message description

2.1   Syntax: XSchema

Operation name	DeclareTransaction
Input data	request x kmehrheader
Output data	response x acknowledge x transaction

2.2   Semantics: rules and interpretation

2.2.1   Input data

The 'request' parameter gathers the elements relative to the

- information about the request (id, date, time),
- sender of the request.

The 'kmehrheader' parameter covers the

- minimal description of the transaction,
- identifier of the patient,
- date and time of recording within the caller system.

Parameter	Attributes		Comments
request	id [1]	Identification of the request within the caller system.	
	author [1]	The sender of the request represented as a sequence of *hcparty* elements. It must at least contain the healthcare party corresponding to the organization responsible of the system.	This information must be coherent with the information provided in the technical

				identification and authentication system (e.g. certificate).
	date [1]	Date of request		
	time [1]	Time of request		
kmehrheader	folder.patient [1]	Patient concerned by the transaction.		Patient contains only the identifiers of the patient. Several identifiers of the same patient are allowed.
	folder.transaction[1]	id [1]	Identifier of the transaction within the caller system.	
		cd [1-*]	Type(s) of the transaction	At least one cd from CD-TRANSACTION
		date [1]	Date of the medical transaction	
		time [1]	Time of the medical transaction	
		author [1]	The author**s** of the document represented as a sequence of hcparty elements	At least one hcparty must be a physical person. The hcparty are listed by granularity. The first is the most global (i.e. hospital) and the last is the most specific (i.e. physical person). The lower granularity is not mandatory but strongly recommended if it exists. Indeed, this information will be used to support consultation request.
		iscomplete [1]	Boolean to indicate that the document is complete	
		isvalidated [1]	Boolean to indicate that the document	

			is valid	
		recorddatetime [1]	Date/time of the recording within the caller system	

2.2.2   Output data

The 'response' parameter gathers the elements relative to the

- information about the response (id, date, time),
- initial request,
- the sender of the response.

The 'acknowledge' parameter gathers the element relative to the

- service completion,
- errors or exceptions that occurred during the service execution (only if the service completion is set to 'false').

The 'transaction' parameter gathers the element relative to the

- identification of the transaction provided by the hub

Parameter	Attributes		Comments
response	id [1]	Id of the response within the target hub	
	author [1]	Sender of the response (i.e.. the target hub)	
	date [1]	Date of response	
	time [1]	Time of response	
	request [1]	Initial request	
acknowledge	iscomplete [1]	Indicates if the execution has been successfully completed	In this case, this field is set to true if the transaction has been recorded within the hub.
	error [0-*]	Indicates the error/exception descriptions	
transaction	id [1-*]	Id of the transaction	Contains the id given by the hub