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## eHealth platform – WG Architecture

### Hub service “getLatestUpdate” : functional description

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Version	Date	Description
3.0	09/02/2017	Hubservices v3

#### Introduction

This document aims to provide the *functional description* of the service ‘getLatestUpdate’ that may be provided by a 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 expected input and output messages)

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

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# 1 Functional description

This operation offers the possibility to retrieve the time of the last change made to a transaction. This allows the consumer software to know whether their data is the latest.

<b>Service name</b>	getLatestUpdate
<b>Purpose</b>	This service offers the possibility to retrieve the time of the last change made to a transaction. This allows the consumer software to know whether their data is the latest.
<b>Input parameters</b>	<ul style="list-style-type: none"><li>- the identifier of a patient P</li><li>- the type transaction</li><li>-the sender S of the request, i.e. the healthcare party that performs the operation call</li><li>- information about the request: id, date, time, "break the glass" (optional)</li></ul>
<b>Output parameters</b>	<ul style="list-style-type: none"><li>- the initial request</li><li>- an acknowledge indicating the completion of the request</li><li>- list of latest updates for the given patient and transaction type</li></ul>
<b>Post-condition</b>	
<b>Possible exceptions</b>	<ul style="list-style-type: none"><li>- Technical error</li><li>- Invalid sender (according to the rules of the hub)</li><li>- Invalid transaction type</li><li>- Invalid patient identifier</li></ul>

	<ul style="list-style-type: none"> <li>- S is not accredited within the hub</li> <li>- S is not allowed to perform the operation according to the hub rules</li> <li>- No consent found of the required type for P</li> <li>- No therapeutic link between S and P</li> <li>- External hub unavailable</li> </ul>
<b>Comments</b>	<ul style="list-style-type: none"> <li>- <b>About the “Sender”:</b> the sender must at least identify the organization responsible of the caller system. For this specific operation that is a consultation operation, it should also identify the healthcare party corresponding to the end-user.</li> <li>- <b>About external transaction updates:</b> if the update of the transaction comes from another hub, the verification of the rules that justify the consultation (patient consent, therapeutic link) is under the responsibility of the requestor hub.</li> </ul>

## 2 Message description

### 2.1 Syntax: XSchema

<b>Operation name</b>	GetLatestUpdate
<b>Input data</b>	request x select
<b>Output data</b>	response x acknowledge x latestupdatelist

### 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, “break the glass” (optional) sender of the request.

The ‘select’ parameter gathers the elements relative to the identifier of the patient type of transaction

Parameter	Attributes	Comments
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request	id [1]	Identification of the request within the caller system.	
	author [1]	<p>The sender of the request represented as a sequence of <i>hcparty</i> elements. It must at least contain the healthcare party corresponding to the organization responsible of the system.</p> <p>For this specific operation that is a consultation operation, it should also identify the healthcare party corresponding to the end-user.</p>	<p>This information must be coherent with the information provided in the technical identification and authentication system (e.g. certificate).</p> <p>If the caller is the end-point for the encryption mechanism, S contains the elements needed to retrieve its Encryption Token Key from the eHealth ETK depot.</p>
	date [1]	Date of request	
	time [1]	Time of request	
	breaktheglass [0-1]	Activates "break the glass" procedure	Therapeutic link is not verified, a reason must be given in field breaktheglass
select	patient [1]	Patient concerned by the transaction update.	Contains only the identifiers of the patient. All interhub exchanges will exclusively rely on the INSS number.
	cd [1-n]	Type of transaction concerned by the update.	One or more cd from CD-TRANSACTION

## 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 latestupdatelist contains the requested updates for the patient and type of transaction.

Parameter	Attributes		Comments
response	id [1]	Identifier of the response within the target hub	The response is supposed to be built by the last hub before the hospital owner.
	author [1]	Sender of the response	
	date [1]	Date of response	The sender will thus be composed of the hub and hospital owner of the transaction.
	time [1]	Time of response	
	request [1]	Initial request	
acknowledge	iscomplete [1]	Indicates if the execution has been successfully completed.	The execution is successful if the transaction is returned.
	error [0-*	Indicates the error/exception descriptions.	
latestupdatelist.latestupdate [1-n]	patient [1]	Patient concerned by the transaction update.	Contains only identifiers of the patient. All intehub exchanges will exclusively rely on the INSS number.
	cd [1]	Type of transaction updated.	One or more cd from CD-TRANSACTION
	version [0-1]	Version of the transaction updated (optional)	
	createdatetime [0-1]	Timestamp of the creation (optional)	
	updatedatetime [1]	Timestamp of the update	