# eHealth platform – G19 report

# Hub service "putAccessRight" : 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 'putAccessRight' 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

This service is 'document related'. It deals with access rights at the document level. The access rights that are not 'document specific' are not in the scope of this service.

A transaction is, by default, consultable by any healthcare party having an active therapeutic link with the patient. In order to restrict this default access rule for a specific transaction, an 'access right' must be associated with the transaction.

The restriction may concern:

- a specific healthcare actor (physical person or organization),
- a 'specialization' of healthcare professional (e.g 'healthcare actors related to psychiatric cares')

An access right may express

§ either a 'positive restriction' (only a specific actor or specialization may access to the document)

§ or a 'negative restriction' or 'exclusion' (a specific actor or actor specialization is not allowed to access the transaction).

This feature is called the 'type of access right'.

Several access rights, of the same type, may be associated with the same transaction. In this case, their effect is a disjunction ('or' relation) of the elementary access rights.

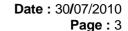More concretely, an elementary access right is composed of the hereunder data:

- the transaction identifier;
- the healthcare party target of the restriction. The allowed healthcare parties are:
   o an healthcare actor that is identified by its INSS number or NIHII number
   o a specialization of healthcare party that is contained in the table CD-HCPARTY, e.g. a restriction on the psychiatry specialization is identified by the type "deptpsychiatry".
- the type of access right:
   o 'allow': the transaction is available for any healthcare party fulfilling the restriction (and, of course the other access rules such as the existence of a therapeutic link)
   o 'disallow': the transaction is not available for the healthcare party matching with the restriction.

When combined elementary access rights have the following semantics:

- allow: an healthcare party that fulfills at least one restriction defined in the access rights may access the transaction.
- disallow: an healthcare party that fulfills at least one restriction defined in the access rights may not access transaction.

Example :

To express that a transaction is only accessible to psychiatrist and to a specific GP, two elementary 'allow' access rights must be added : one that restrict the access to the specialization 'deptpsychiatry' and a second one that restrict the access to this specific GP.

| Service name | putAccessRight |
| --- | --- |
| **Purpose** | This service should be used to put an access right on the transaction within a hub. |
| **Input parameters** | - the identifier of the transaction T<br><br>- the restriction on the healthcare party HCP (actor or specialization)<br><br>- the type of the access right AR (allow or disallow)<br><br>- the sender S of the request, i.e. the healthcare party that performs the operation call<br><br>- information about the transaction (id/date/time) |
| **Output parameters** | - the initial request<br><br>- an acknowledge indicating the completion of the request |
| **Post-condition** | - if there is no active access right related to<br><br>    • the transaction T,<br><br>    • the restriction R on the healthcare party HCP.<br><br>then the access right is created within the hub.<br><br>- if the type of access right in the request is different than the current type of access right on the transaction, the current access rights on the transaction are revoked. |
| **Possible Exceptions** | - Technical error<br><br>- Invalid or incorrect data :<br><br>    - Invalid transaction identifier<br><br>    - Invalid healthcare party identifier<br><br>    - Invalid healthcare party type<br><br>    - Invalid access right type<br><br>- S is not accredited within the hub<br><br>- S is not allowed to perform the operation according to the hub rules<br><br>- The restriction on the specialization and actor in the same access right is not allowed both.<br><br>- There is no active consent for P concerned by the transaction<br><br>- There is no active consent for HCP that is identified by the provided identifier<br><br>- The access right (T,R) already exists |
| **Comments** | **- Identification of access right**: to identify an access right, one needs a transaction identifier and a restriction on the healthcare party (actor or specialization). Thus, it is possible to have several active access rights on the same transaction but not with the same restriction.<br><br>**- Identification of the transaction**: the allowed identifiers are the local identifier provided by the owner of the transaction or the identifier provided by the hub. |

|  | - **Identification of healthcare party:** an healthcare professional is identified by its INSS number and NIHII number (if available); a hospital is identified by its NIHII number. |
|---|---|
|  | - **Update of access right**: it is not possible to update an access right; to update information, one first need to revoke the existing access right. |
|  | - **About external transaction:** if the transaction comes from another hub, the access right must be asked through the owner hub. |

# 2 Message description

## 2.1 Syntax: XSchema

| Operation name | putAccessRight |
|---|---|
| Input data | request x accessright |
| Output data | response x acknowledge |

## 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 'accessright' parameter covers the

- access right type,
- transaction identifier,
- healthcare party restriction.

| 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 (eg certificate). |
| | date [1] | Date of request | |
| | time [1] | Time of request | |

| accessright | transaction [1] | The identifier of the transaction concerned by the access right | | Contains the identifiers of the transaction (local identifier or the hub identifier) |
|---|---|---|---|---|
| | hcparty [1] | id [0-*] | The restriction on the specific healthcare party | The restriction on the identifier must concern only one healthcare party. The identifier of the healthcare party must at least include NIHII or INSS number according to the type of HCParty. Other local identifiers are allowed. |
| | | cd [0-*] | The restriction on the specialization of healthcare party | Must contain one value of the table CD-HCPARTY. |
| | cd [1] | The type of access right | | Must contain one value of the table CD-ACCESSRIGHT. |

## 2.2.2 Output data

The 'response' parameter gathers the elements relative to the

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

The 'acknowledge' parameter gathers the element relative to the

- service completion,
- errors or exceptions that occurred during the service execution.

| Parameter | Attributes | | Comments |
|---|---|---|---|
| response | id [1] | Identifier of the response within the target hub | |
| | author [1] | Sender of the response: 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 | The execution is successful if the access right has been correctly stored within the hub. |
| | error [0-*] | Indicates the error/exception | |

| | | descriptions | |
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