

**Link WS - REST
Cookbook
Version 1.8**

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eHealth platform

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To the attention of: “IT expert” willing to integrate this web service.



1. Document management

1.1 Document history

Version	Date	Author	Description of changes / remarks
1.0	30/04/2020	eHealth platform	Initial version
1.1	04/06/2020	eHealth platform	Modifications of the HEAD method User roles
1.2	22/06/2020	eHealth platform	Dates validations (POST) Mapping error code / messages New born management : <ul style="list-style-type: none">- SSIN support card number is not required. Remove user roles linked to therapeutic links
1.3	18/09/2020	eHealth platform	Add error code / message for ERR051
1.4	01/03/2021	eHealth platform	Adaptation of user roles Review mapping error code / messages
1.5	26/03/2021	eHealth platform	Modification of the resource_access for Link (roles in the access token)
1.6	06/07/2021	eHealth platform	Review (update + add) mapping error code / messages Support of care relation at the CBE level for non-COT organizations Interface simplification : hcParty becomes optional for POST and GET operations
1.7	01/08/2022	eHealth platform	§ 2.3 eHealth document references (updated) § 3 Support (updated) § 5.1.2 Tracing (added)
1.8	05/02/2024	eHealth platform	Add new methods with pagination for consultation (GET / GET History)

2. Introduction

2.1 Goal of the service

The existence of a therapeutic or a care relationship is one of the fundamental prerequisites for the HealthCare providers to access a patient's medical data. Therefore, the eHealth platform makes available to the actors involved in the exchange, storage or referencing personal data, a relay service to manage those therapeutic or care relationships and associated means of evidence¹.

This relay service is obviously limited to therapeutic and care links, made available at the eHealth platform level by the 'owner' of this therapeutic or care link (such as the HC party declaring a therapeutic or care link or the actor responsible of a recognized specific database, e.g. for Global Medical File relationship).

2.1.1 Therapeutic Links

A therapeutic link is a relationship between a patient and an entity that is included in the A.R.78 list of Health Care providers (called HC party AR78) for a certain type of therapeutic relationships over a period of validity depending on the given evidence. These relationships are stored at the Collège Inter-mutualiste National – Inter-mutualistisch College (CIN/NIC - MyCareNet). Regarding these relationships: it is not possible to update an existing therapeutic link. To update information one first needs to revoke the existing therapeutic link.

However, the period of validity of an active therapeutic link could be extended provided that

- the start -date of the new period is greater or equal to the start date of the period to be extended
- and
- the end-date of the new period is greater than the end-date of the period to be extended (overlap of period of validity)

The following operations will support the management of these links²:

POST /therapeuticLinks	Used to declare the therapeutic links. Its main purpose is to allow one to declare a therapeutic link.
DELETE /therapeuticLinks	Used to revoke the therapeutic links. Its main purpose is to allow one to "end" the (declaration of a) therapeutic link.
GET /therapeuticLinks	Used to consult therapeutic links according to basic search parameters. Its main purpose is to allow one to check the existence of the therapeutic links when executing a consultation process.

The therapeutic links are managed, according to the rules corresponding to the type of therapeutic link, through:

- specific **WS** by HC professionals as end-users through their usual software or through an authorized organization³,

¹ Supported evidences are described in the paragraph 5.2.1.3.

² Global Medical File (gmd) does support neither declaration nor revocation. Only physicians are allowed to consult 'gmd'.

³ Only the consultation service is available for healthcare professionals through authorized organizations.

- dedicated web applications, currently called **PHV MyHealth**⁴ and **Vitalink MyHealthViewer**⁴ available for patients.

General comments

The proposed interfaces are **extensions** of the interfaces defined for the same purpose in the context of the hub & metahub project (see <https://www.ehealth.fgov.be/standards/kmehr/nl>).

Those interfaces are quite “generic” meaning they support various combinations of the input parameters. The service does not support all the possible combinations at the interface level. The rationale for this is mainly to preserve the privacy of the patient, but sometimes for technical reasons.

Please consult the associated deliberations of the “Comité Sectoriel Section Santé” for more information about the rules and principles of utilization of this service.

2.1.2 Care Links

A care link is a relationship between a patient and an entity that is not included in the A.R.78 list of Health Care providers (called HC party no-AR78) for a certain type of care relationships over a period of validity depending on the given evidence. These relationships are stored at eHealth platform. Regarding these relationships, it is possible to update an existing relationship. To update the validity period of an existing relationship, you need to create the relationship with the new information again.

The following operations will support the management of these links :

POST /careLinks	Used to declare or extend the care links. Its main purpose is to allow one to declare a care link.
DELETE /careLinks	Used to revoke the care links. Its main purpose is to allow one to “end” the (declaration of a) care link.
GET /careLinks	Used to consult active care links according to basic search parameters. Its main purpose is to allow one to retrieve a list of the existing care links when executing a consultation process.
GET /careLinks/existences	Used to consult care links according to basic search parameters. Its main purpose is to allow one to check the existence of an active care link when executing a consultation process. This method’s main difference with the GET method is that it is more lightweight and faster to respond.
GET /careLinks/histories	Used to consult inactive care links according to basic search parameters. Its main purpose is to allow one to retrieve a list of the existing care links when executing a consultation process.
GET /careLinks/pages	Used to consult active care links according to basic search parameters. Its main purpose is to allow one to retrieve a list of the existing care links when executing a consultation process with the pagination system.
GET /careLinks/histories/pages	Used to consult inactive care links according to basic search parameters. Its main purpose is to allow one to retrieve a list of the existing care links when executing a consultation process with the pagination system.

2.2 Goal of the document

This document describes the use of the Link service as provided by the eHealth platform. In this cookbook, we explain the structure and content aspects of the possible requests and the replies of a Link WS with an example to illustrate each of them. In addition, a list of possible errors can be found in this document.

⁴ PHV MyHealth and Vitalink MyHealthViewer Web Applications manage also patient consent and healthcare party exclusions.



This information should allow (the IT department of) an organization to develop and use the WS call. Some technical and legal requirements must be met in order to allow the integration of the eHealth WS in client applications.

This document is neither a development nor a programming guide for internal applications: eHealth partners always keep a total freedom within those fields. Nevertheless, in order to interact in a smooth, homogeneous and risk controlled way with a maximum of partners, eHealth partners must commit to comply with specifications, data format, and release processes described within this document. In addition, our partners in the health sector must also comply with the business rules of validation and integration of data within their own applications in order to minimize errors and incidents.

Warning : In the current version of this document and the REST interface, eHealth only defines the specifications related to the management of care links. The specifications related to the management of therapeutic links will be described in a future version, the date of which has not yet been defined.

2.3 eHealth document references

All the document references can be found on the eHealth platform portal⁵. These versions or any following versions can be used for the eHealth platform service.

ID	Title	Version	Date	Author
1	eHealth Services – Web Access	2.0	12/07/2018	eHealth platform
2	I.AM Connect Technical specifications	1.5	26/06/2021	eHealth platform
3	I.AM Connect – HealthCare Client Registration (Form)	1.2	28/06/2021	eHealth platform
4	I.AM Connect – M2M Client registration (Form)	1.1	07/07/2021	eHealth platform
5	Request test case template (Form)	3.0	22/02/2018	eHealth platform

⁵ <https://www.ehealth.fgov.be/ehealthplatform>

3. Support

3.1 Helpdesk eHealth platform

3.1.1 Certificates

In order to access the secured eHealth platform environment you have to obtain an eHealth platform certificate, used to identify the initiator of the request. In case you do not have one, please consult the chapter about the eHealth Certificates on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/nl/ehealth-certificaten>
- <https://www.ehealth.fgov.be/ehealthplatform/fr/certificats-ehealth>

For technical issues regarding eHealth platform certificates

- Acceptance: acceptance-certificates@ehealth.fgov.be
- Production: support@ehealth.fgov.be

3.1.2 For issues in production

eHealth platform contact centre:

- Phone: 02 788 51 55 (on working days from 7 am till 8 pm)
- Mail: support@ehealth.fgov.be
- Contact Form :
 - <https://www.ehealth.fgov.be/ehealthplatform/nl/contact> (Dutch)
 - <https://www.ehealth.fgov.be/ehealthplatform/fr/contact> (French)

3.1.3 For issues in acceptance

Integration-support@ehealth.fgov.be

3.1.4 For business issues

- regarding an existing project: the project manager in charge of the application or service
- regarding a new project or other business issues: info@ehealth.fgov.be

3.2 Status

The website <https://status.ehealth.fgov.be> is the monitoring and information tool for the ICT functioning of the eHealth services that are partners of the Belgian eHealth system.

3.3 I.AM Connect

In order to use the Link REST service you have to obtain an “Access token” which is delivered through I.AM Connect. You can find more information about I.AM Connect and how to register a client in I.AM Connect on the I.AM eHealth portal page:

Dutch version:

<https://www.ehealth.fgov.be/ehealthplatform/nl/service-iam-identity-access-management>

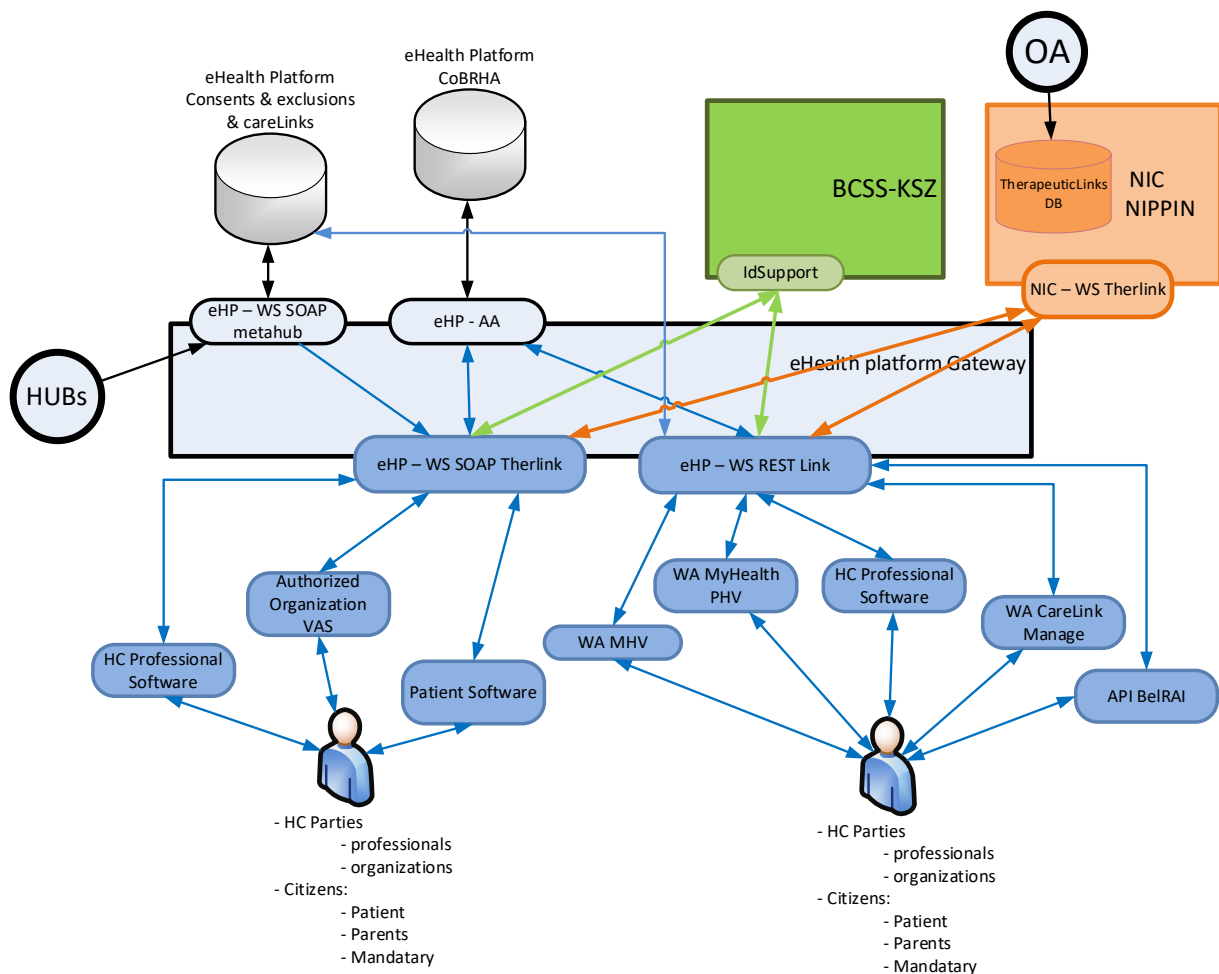
French version:

<https://www.ehealth.fgov.be/ehealthplatform/fr/service-iam-identity-access-management>



4. Global overview

Schema



The schema gives the users of this cookbook the overview of the management of the therapeutic and care links.

- The PHV MyHealth and MHV WA will allow patients (incl. patient's parents or mandataries) to manage the therapeutic links (declaration, revocation, and consultation) by calling the eHealth Link WS (REST).
- The authorized HC parties and citizen (incl. concerned patients, parents of patients or patient's mandataries) are also able to perform the same operations throughout their usual software by calling the eHealth therapeutic link WS (SOAP) or Link WS (REST).
- The authorized HC organizations are only authorized to verify the existence of the therapeutic links before allowing the HC parties to access the medical data of the patients by calling the therapeutic link consultation WS (SOAP) through their application.
- The CareLink Manage WA will allow no-AR78 care providers belonging to a organizations that do not meet the conditions of the Circle of Trust (called no-COT) to manage the care links (declaration, revocation, and consultation) by calling the eHealth Link WS (REST).
- The BeRAI API will allow BeRAI to verify and consult the existence of care links in the context of access management to their applications and related functionalities.
- Some authorized HC organizations may manage the care links (declaration, revocation, and consultation) by calling the eHealth Link WS (REST) through their application.

5. Step-by-step

5.1 Technical requirements

5.1.1 eHealth platform Authentication

As explained previously, to use the Link Rest service, you must have an access token delivered through I.AM Connect.

Several roles and profiles are defined for the using of the Link Rest service.

Possible roles :

- `manage-carelink-orgcot` : This role must be present in the access token for a COT organization in order to use the POST and DELETE methods of the service on the `/careLinks` resource URI.
- `manage-carelink-orgnocot` : This role must be present in the access token for a non-COT organization in order to use the POST and DELETE methods of the service on the `/careLinks` resource URI.
- `consult-carelink-orgcot` : This role, if present in the access token for a COT organization, allows the usage of the GET method of the service on the `/careLinks` , `/careLinks/existences` and `/careLinks/histories` resource URI with restrictions. These restrictions allow the user to consult only for himself as a `hcParty`.
- `consult-carelink-orgnocot` : This role, if present in the access token for a non-COT organization, allows the usage of the GET method of the service on the `/careLinks` , `/careLinks/existences` and `/careLinks/histories` resource URI with restrictions. These restrictions allow the user to consult only for himself as a `hcParty`.
- `verify-carelink` : This role, if present in the access token, allows the usage of the GET method of the service on the `/careLinks/existences` resource URI without restriction. The lack of restriction implies that the user can consult for himself (as a patient or `hcParty`) but also for other `hcParty`.
- `consult-carelink-superuser` : This role, if present in the access token, allows the usage of the GET method of the service on the `/careLinks` , `/careLinks/existences` and `/careLinks/histories` resource URI without restriction. The lack of restriction implies that the user can consult for himself (as a patient or `hcParty`) but also for other `hcParty`.
- `monitoring` : This role must be present in the access token in order to use the monitoring methods (`/health`) of the service.

Presentation of the roles and profiles in the access token:

```
"resource_access": {
  "ehealth-padac-link-api":
  {
    "roles": [
      "consult-carelink-orgnocot",
      "manage-carelink-orgnocot",
    ]
  }
}
```

5.1.2 Tracing

To use this service, the request SHOULD contain the following two http header values (see RFC <https://datatracker.ietf.org/doc/html/rfc7231#section-5.5.3>):

1. User-Agent: information identifying the software product and underlying technical stack/platform. It MUST include the minimal identification information of the software such that the emergency contact (see below) can uniquely identify the component.
 - a. Pattern: {minimal software information}/{version} {minimal connector information}/{connector-package-version}
 - b. Regular expression for each subset (separated by a space) of the pattern: `[[a-zA-Z0-9-√]*√[0-9azA-Z-_*]]*`
 - c. Examples:
User-Agent: myProduct/62.310.4 Technical/3.19.0
User-Agent: Topaz-XXXX/123.23.X freeconnector/XXXXX.XXX
2. From: email-address that can be used for emergency contact in case of an operational problem.
Examples:
From: info@mycompany.be

5.2 The Link REST Service

The REST interface is described with a JSON/ Swagger API.

The Link WS has the following endpoints :

- Acceptance environment: <https://api-acpt.ehealth.fgov.be/links/v1>
- Production environment: <https://api.ehealth.fgov.be/links/v1>

5.2.1 POST /careLinks

This method allows to create a care link between a patient and a HC Party.

5.2.1.1 Request

Element	Description
patient (mandatory)	<p>Identification of the patient concerned by the care link.</p> <p>The identification data of the concerned patient :</p> <ul style="list-style-type: none">- The SSIN- The support card number- The first name and the family name <p>The SSIN is mandatory. The element <i>'identifiers.type'</i> must be <i>'ssin'</i>.</p> <p>The support card number can be :</p> <ul style="list-style-type: none">- The e-ID card number (mandatory if the given proof is the e-ID card reading or e-ID card encoding);- The ISI+ card number (mandatory if the given proof is the reading of the ISI+ card);



	<p>The element <i>'name'</i> must contain at least one non-empty character whilst the element <i>'firstname'</i> can be empty.</p>
<p>hcParty (optional)</p>	<p>Identification of the HC party concerned by the care link.</p> <p>The HC Party can be a HC professional or an organization.</p> <p>The identification data if the HC party is a HC professional :</p> <ul style="list-style-type: none"> - The SSIN number - The first name and the family name <p>The SSIN is mandatory. In that case, the element <i>'identifiers.type'</i> must be <i>'ssin'</i>.</p> <p>The element <i>'name'</i> must contain at least one non-empty character whilst the element <i>'firstname'</i> can be empty.</p> <p>The identification data if the HC party is an organization :</p> <ul style="list-style-type: none"> - The organization identifier, either : <ul style="list-style-type: none"> A CBE number (10 digits) A NIHII number (8 digits or 11 digits) An EHP number (10 digits) - The name <p>The organization CBE, EHP or NIHII number is mandatory. Depending on the type of identifier, the element <i>'identifiers.type'</i> should be <i>'cbe'</i>, <i>'ehp'</i> or <i>'nihii'</i>.</p> <p>The element <i>'name'</i> must contain at least one non-empty character.</p> <p>The element <i>'hcParty'</i> is optional and should not be used if the user role is included in the following list :</p> <ul style="list-style-type: none"> - <i>'manage-carelink-orgcot'</i> - <i>'manage-carelink-orgnocot'</i> <p>For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.</p> <hr/> <p>Warning: it is possible in the future to have a ban on the use of this element following a decision by BeIRAI VL which still has to be taken. In that case, if provided then the request will be rejected.</p>

<p>proof (optional)</p>	<p>The type of the proof⁶.</p> <p>The element <i>'proof'</i> can be :</p> <ul style="list-style-type: none"> - <i>'eidreading'</i> - <i>'eidencoding_nocard'</i> - <i>'eidencoding_housecall'</i> - <i>'eidencoding_techproblem'</i> - <i>'isireading'</i> - <i>'phone_call'</i> - <i>'contract'</i> <p>The concept of the proof is not applied (not mandatory) when the concerned patient is a new born (0 < patient's date of birth < 3 months) unless the care link is created under a contract or a phone call :</p> <ul style="list-style-type: none"> - If the care link is created under a contract or a phone call, the element <i>'proof'</i> is mandatory but no support card number must be specified. - If the care link is not created under a contract or a phone call, the element <i>'proof'</i> is optional, should not be used and no support card number must be specified.
<p>type (mandatory)</p>	<p>The type of the care link⁷ (mandatory).</p> <p>Currently, 3 values are available for a care link linked to an organization :</p> <ul style="list-style-type: none"> - <i>'careinstitutionremotecontact'</i> - <i>'careinstitutiondaycare'</i> - <i>'careinstitutionstay'</i> <p>The following value is available for a care link linked to an individual care provider :</p> <ul style="list-style-type: none"> - <i>'carerelation'</i>
<p>startDate (optional)</p>	<p>The inclusive start date of the validity period of the care link.</p> <p>The element <i>'startDate'</i> is optional and should not be used if the proof type is different from <i>'contract'</i>:</p> <ul style="list-style-type: none"> - If provided and the proof type is <i>'contract'</i> then the start date must be greater or equal to the declaration date i.e. the date when the declaration request is processed (the current date) else, the request is rejected. - If provided and the proof type is different from <i>'contract'</i> then the request is rejected.

⁶ Supported evidences are described in the paragraph 5.2.1.3

⁷ The given evidence must correspond and be valid to the type of link (see paragraph 5.2.1.3)

	<ul style="list-style-type: none"> - If not provided then the start date is enriched with the declaration date i.e. the date when the declaration request is processed (the current date).
<p>endDate (optional)</p>	<p>The exclusive end date of the validity period of the care link.</p> <p>The element <i>'endDate'</i> is optional, depending on the given evidence and should not be used if the proof type is different from <i>'contract'</i> :</p> <ul style="list-style-type: none"> - If provided and the proof type is <i>'contract'</i> then the end date must be strictly greater to <i>'startDate'</i> else, the request is rejected. - If provided and the proof type is different from <i>'contract'</i> then the request is rejected. - If not provided then the end date is enriched according the following rule : $endDate = startDate + \text{the default period of validity.}$ <p>The default period of validity is defined as follows depending on the type of proof :</p> <ul style="list-style-type: none"> - <i>'eidreading', 'eidencoding_nocard', 'eidencoding_housecall', 'eidencoding_techproblem', 'isireading'</i> : 24 months - <i>'phone_call'</i> : 1 month - <i>'contract'</i> : unlimited <p>Update of care link : To update the validity period of an existing relationship, you need to post again the same care link with new dates.</p>

Examples:

- **Creation of a care link with an HC organization using a type of proof other than 'contract'**

The business rules for creating and merging care links described above are illustrated in the following diagram. On this diagram, we post the blue care link (with a start / end date defined by default according to the rules above). All the care links in the example **must have** the same type.

Creation case	New CareLink Proof Type	Schema												Http code																											
		T-3	T-2	T-1	T_0	T+1	T+2	T+3	T+4	T+5	T+6	T-3	T-2	T-1	T_0	T+1	T+2	T+3	T+4	T+5	T+6																				
1	Non-Contract																																								
2	Non-Contract																																								
3	Non-Contract				*																																				
4	Non-Contract																																								
5	Non-Contract																																								
6	Non-Contract																																								
7	Non-Contract																																								
8	Non-Contract																																								
9	Non-Contract																																								
10	Non-Contract																																								
11	Non-Contract																																								
12	Non-Contract																																								
13	Non-Contract																																								
14	Non-Contract																																								

For any patient (more than 3 months) :

POST /careLinks

```

{
  "patient": {
    "identifiers": [
      {
        "type": "ssin",
        "value": "9xxxxxxxxx1"
      },
      {
        "type": "cardNumber",
        "value": "5xxxxxxxxxx9"
      }
    ],
    "name": "PatientLastName",
    "firstName": "PatientFirstName"
  },
  "proof": {
    "type": "eidreading"
  },
  "type": "careinstitutiondaycare"
}

```



For a new born patient (less than 3 months) :

POST /careLinks

```

{
  "patient": {
    "identifiers": [
      {
        "type": "ssin",
        "value": "9xxxxxxxxx1"
      }
    ],
    "name": "PatientLastName",
    "firstName": "PatientFirstName"
  },
  "type": "careinstitutiondaycare"
}

```

- **Creation of a care link with a HCP organization using 'contract' as type of proof**

The management of care links created under a contract allows the creation of care links in the future, in addition to the "classic" creation of other types of evidence. This means that it is possible to have at most two existing care links containing identical information (one care link active in the present and the second inactive in the future).

The following business rules are applied :

1. Only one care link created under a contract per type of care link can be created in the future.
2. It is impossible to create another care link in the future. If the user posts a new one, it replaces the already existing one.
3. Inactive care links whose validity period is in the future are consultable and revocable.

The business rules for creating and merging care links described above are illustrated in the following diagram. On this diagram, we post the blue care link (with a start / end date defined by default according to the rules above). All the care links in the example **must have** the same type.

Creation case	New CareLink Proof Type	Schema	
		Http code	
1	Contract		201
2	Contract		200
3	Contract		200
4	Contract		200
5	Contract		200
6	Contract		200
7	Contract		200
8	Contract		200
9	Contract		409
10	Contract		409
11	Contract		200
12	Contract		200
13	Contract		200





Creation of an active care link directly ('startDate' = current date = 24/02/2020) for any patient (more than 3 months) :

POST /careLinks

```
{
  "patient": {
    "identifiers": [
```



```

    {
      "type": "ssin",
      "value": "9xxxxxxxxx1"
    },
    {
      "type": "cardNumber",
      "value": "5xxxxxxxxx9"
    }
  ],
  "name": "PatientLastName",
  "firstName": "PatientFirstName"
},
"proof": {
  "type": "contract"
},
"type": "careinstitutionstay",
"startDate": "2020-02-24",
"endDate": "2025-02-24"
}

```

Creation of care link that will be active in the future ('startDate' > current date = 24/02/2020) for any patient (more than 3 months) :

POST /careLinks

```

{
  "patient": {
    "identifiers": [
      {
        "type": "ssin",
        "value": "9xxxxxxxxx1"
      },
      {
        "type": "cardNumber",
        "value": "5xxxxxxxxx9"
      }
    ]
  },
  "name": "PatientLastName",
  "firstName": "PatientFirstName"
},
"proof": {
  "type": "contract"
},
"type": "careinstitutionstay",
"startDate": "2021-02-24",
"endDate": "2025-02-24"
}

```

Creation of an active care link directly ('startDate' = current date = 24/02/2020) for a new born patient (less than 3 months) :

POST /careLinks

```

{
  "patient": {
    "identifiers": [
      {
        "type": "ssin",
        "value": "9xxxxxxxxx1"
      }
    ]
  },
  "name": "PatientLastName",

```

```

    "firstName": "PatientFirstName"
  },
  "proof": {
    "type": "contract"
  },
  "type": "careinstitutionstay",
  "startDate": "2020-02-24",
  "endDate": "2025-02-24"
}

```

Creation of care link that will be active in the future ('startDate' > current date = 24/02/2020) for a new born patient (less than 3 months) :

POST /careLinks

```

{
  "patient": {
    "identifiers": [
      {
        "type": "ssin",
        "value": "9xxxxxxxxx1"
      }
    ],
    "name": "PatientLastName",
    "firstName": "PatientFirstName"
  },
  "proof": {
    "type": "contract"
  },
  "type": "careinstitutionstay",
  "startDate": "2021-02-24",
  "endDate": "2025-02-24"
}

```

5.2.1.2 Response

Success:

HTTP code 201 (Created) returned in case of success for the creation of the link.

HTTP code 200 (Success) is returned in case an existing link with the same attributes was already present. In this case, the link is extended to the new end date.

Error:

HTTP code 409 (Conflict) returned in case of an existing link covering the period of the posted link.

Failures:

For failure description please refer to section 8 of this cookbook.

5.2.1.3 Proof

A proof represents the 'technical' means used to 'prove' the care relation. More generally, a proof can be associated to an operation performed on a care link. Those proofs can have various 'natures' represented by the 'type of the proof'. Those types of proof are part of the open list of proof published at

<https://www.ehealth.fgov.be/standards/kmehr/en/tables/proof-type>

Currently, eHealth platform supports only these cards and these types of proof:

Type of the proof	Given proof	Meaning	Authorized type of link
eidreading	eID card number	Reading the eID card	careinstitutiondaycare careinstitutionstay carerelation



eidencoding_housecall	eID card number	Encoding the eID Card during a house call	careinstitutiondaycare careinstitutionstay carerelation
eidencoding_nocard	eID card number	Encoding the eID Card	careinstitutiondaycare careinstitutionstay carerelation
eidencoding_techproblem	eID card number	Encoding the eID Card during a technical problem	careinstitutiondaycare careinstitutionstay carerelation
isireading	ISI+ card number	Reading the ISI+ card	careinstitutiondaycare careinstitutionstay carerelation
phone_call	eID or ISI+ card number or no proof (only for new born)	Encoding the support card number after a phone call	careinstitutionremotecontact
contract	eID or ISI+ card number or no proof (only for new born)	Reading or encoding the support card number under the existence of a contract	careinstitutiondaycare careinstitutionstay carerelation

These types consist of the reading or the encoding of the patient Belgian electronic identity card or the Belgian social identity card (ISI+) to retrieve the patient SSIN and support card number. They are required to manage non-referral care links.

5.2.2 DELETE /careLinks

The requests of type "DELETE" on path /careLinks allows the user to either revoke an active care link, or delete a care link created in the future and not yet active.

5.2.2.1 Request

queryParameter	Description
patientSsin (mandatory)	Social Security Identification Number (SSIN) of the patient concerned by the care link.
hcPartyId (mandatory)	Identifier of the HC party concerned by the care link. The HC Party can be a HC professional or an organization. The identification data if the HC party is a HC professional is : <ul style="list-style-type: none"> - An SSIN number The identification data if the HC party is an organization is either: <ul style="list-style-type: none"> - A CBE number (10 digits) - A NIHII number (8 digits or 11 digits) - An EHP number (10 digits)
hcPartyIdType (mandatory)	The type of identifier put in the field "hcPartyId". This string can take four possible values:



	<ul style="list-style-type: none"> - "ssin" - "nihii" - "cbe" - "ehp"
linkType (mandatory)	<p>The type of the care link to delete.</p> <p>Currently, 3 values are available for a care link linked to an organization :</p> <ul style="list-style-type: none"> - 'careinstitutionremotcontact' - 'careinstitutiondaycare' - 'careinstitutionstay' <p>The following value is available for a care link linked to an individual care provider :</p> <ul style="list-style-type: none"> - 'carerelation'
deleteFuture (optional)	<p>This boolean argument, if specified and set to "true", states that the requests targets an inactive care link beginning in the future. Because it does not exist yet, it will be solely deleted instead of a revocation.</p>

Example:

```
DELETE
/careLinks?patientSsin=9xxxxxxxxx1&hcPartyId=9xxxxxxxxx1&hcPartyIdType=cbe&linkType=careinstitutiondaycare
```

5.2.2.2 Response

Success:

HTTP code 204 (No Content) returned in case of success for the revocation/deletion of the link.

Error:

HTTP code 404 (Not Found) returned in case of no existing link matching the given arguments.

Failures:

For failure description please refer to section 8 of this cookbook.

5.3 GET /careLinks

The requests of type "GET" on path /careLinks allows the user to retrieve the list of either active or future care links, depending on the specified arguments.

5.3.1.1 Request

queryParameter	Description
patientSsin (optional)	Social Security Identification Number (SSIN) of the patient concerned by the care link.
hcPartyId (optional)	Identifier of the HC party concerned by the care link. The HC Party can be a HC professional or an organization.



	<p>The identification data if the HC party is a HC professional is :</p> <ul style="list-style-type: none"> - An SSIN number <p>The identification data if the HC party is an organization is either:</p> <ul style="list-style-type: none"> - A CBE number (10 digits) - A NIHII number (8 digits or 11 digits) - An EHP number (10 digits)
hcPartyIdType (optional)	<p>The type of identifier put in the field '<i>hcPartyId</i>'. This string can take four possible values:</p> <ul style="list-style-type: none"> - "<i>ssin</i>" - "<i>nihii</i>" - "<i>cbe</i>" - "<i>ehp</i>"
linkType (optional)	<p>The type of the care link to consult.</p> <p>Currently, 3 values are available for a care link linked to an organization :</p> <ul style="list-style-type: none"> - '<i>careinstitutionremotcontact</i>' - '<i>careinstitutiondaycare</i>' - '<i>careinstitutionstay</i>' <p>The following value is available for a care link linked to an individual care provider :</p> <ul style="list-style-type: none"> - '<i>carerelation</i>' <p>This argument can be specified as an array having multiple values</p>
includeFuture (optional)	<p>This boolean argument, if specified and set to "true", states that the request must also match the inactive carelinks (beginning in the future).</p>

Although all the arguments are declared as optional in the part of the swagger defining the GET operation, a few additional rules apply:

- If the token role is "consult-carelink-superuser", then at least one of '*patientSsin*' or '*hcPartyId*' must be provided.
- If an '*hcPartyId*' is provided, the '*hcPartyIdType*' MUST also be provided.
- If the token role is "consult-carelink-orgcot" or "consult-carelink-orgnocot" then the elements '*hcPartyId*' and '*hcPartyIdType*' should not be used (must be missing). For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.

Warning: it is possible in the future to have a ban on the use of this element following a decision by BelRAI VL which still has to be taken. In that case, if provided then the request will be rejected.

The type of proof is never returned in the response ('proof' is always set to the value null).

Example:

```
GET /careLinks?patientSsin=9xxxxxxxxx1&linkType=careinstitutiondaycare
```

5.3.1.2 Response

Success:

HTTP code 200 (Success) returned in case of a non-empty list of care links found.

In this case, the body contains an array of link objects :

```
[
  {
    "patient": {
      "identifiers": [
        {
          "type": "ssin",
          "value": "12345678910"
        }
      ],
      "name": "patientName",
      "firstName": "patientFirstName"
    },
    "hcParty": {
      "identifiers": [
        {
          "type": "cbe",
          "value": "0123456789"
        }
      ],
      "name": "hcpName",
      "firstName": null,
      "qualificationCode": null
    },
    "type": "carelinktype",
    "startDate": "2020-01-23",
    "endDate": "2020-02-23",
    "proof": null
  }
]
```

HTTP code 204 (No content) returned in case no care link could be found matching the provided arguments.

In this case, the body will be an empty array

```
[ ]
```

Failures:

For failure description please refer to section 8 of this cookbook.

5.4 GET /careLinks/existences

The requests of type "GET" on path /careLinks/existences allow the user to check the existence of an active care link matching the specified arguments.

5.4.1.1 Request

queryParameter	Description
patientSsin (mandatory)	Social Security Identification Number (SSIN) of the patient concerned by the care links.



<p>hcPartyId (optional)</p>	<p>Identifier of the HC party concerned by the care link. The HC Party can be a HC professional or an organization. The identification data if the HC party is a HC professional is :</p> <ul style="list-style-type: none"> - An SSIN number <p>The identification data if the HC party is an organization is either:</p> <ul style="list-style-type: none"> - A CBE number (10 digits) - A NIHI number (8 digits or 11 digits) - An EHP number (10 digits)
<p>hcPartyIdType (optional)</p>	<p>The type of identifier put in the field 'hcPartyId'. This string can take four possible values:</p> <ul style="list-style-type: none"> - "ssin" - "nihii" - "cbe" - "ehp"
<p>linkType (optional)</p>	<p>The type of the care link to consult. Currently, 3 values are available for a care link linked to an organization :</p> <ul style="list-style-type: none"> - 'careinstitutionremotcontact' - 'careinstitutiondaycare' - 'careinstitutionstay' <p>The following value is available for a care link linked to an individual care provider :</p> <ul style="list-style-type: none"> - 'carerelation' <p>This argument can be specified as an array having multiple values.</p>

- If an 'hcPartyId' is provided, the 'hcPartyIdType' MUST also be provided.
- If the token role is "consult-carelink-orgcot" or "consult-carelink-orgnocot" then the elements 'hcPartyId' and 'hcPartyIdType' should not be used (must be missing). For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.

Warning: it is possible in the future to have a ban on the use of this element following a decision by BelRAI VL which still has to be taken. In that case, if provided then the request will be rejected.

- If the token role is "consult-carelink-superuser" or "verify-carelink" then the elements 'hcPartyId' and 'hcPartyIdType' must be specified.

Example:

`GET /carelinks/existences?patientSsin=9xxxxxxxx1&linkType=careinstitutiondaycare`

5.4.1.2 Response

Success:

HTTP code 200 (Success) returned if an active care link matches the specified arguments.

HTTP code 204 (No content) returned in case no care link could be found matching the provided arguments.



Failures:

For failure description please refer to section 8 of this cookbook.

5.5 GET /careLinks/histories

The requests of type “GET” on path /careLinks/histories allow the user to retrieve the list of either inactive care links that expired in the past.

5.5.1.1 Request

queryParameter	Description
patientSsin (optional)	Social Security Identification Number (SSIN) of the patient concerned by the care links.
hcPartyId (optional)	Identifier of the HC party concerned by the care link. The HC Party can be a HC professional or an organization. The identification data if the HC party is a HC professional is : <ul style="list-style-type: none">- An SSIN number The identification data if the HC party is an organization is either: <ul style="list-style-type: none">- A CBE number (10 digits)- A NIHII number (8 digits or 11 digits)- An EHP number (10 digits)
hcPartyIdType (optional)	The type of identifier put in the field ‘hcPartyId’. This string can take four possible values: <ul style="list-style-type: none">- “ssin”- “nihii”- “cbe”- “ehp”
linkType (optional)	The type of the care link to consult. Currently, 3 values are available for a care link linked to an organization : <ul style="list-style-type: none">- ‘careinstitutionremotecontact’- ‘careinstitutiondaycare’- ‘careinstitutionstay’ The following value is available for a care link linked to an individual care provider : <ul style="list-style-type: none">- ‘carerelation’ This argument can be specified as an array having multiple values

Although all the arguments are declared as optional in the part of the swagger defining the GET operation, a few additional rules apply:

- If the token role is “consult-carelink-superuser”, then at least one of ‘patientSsin’ or ‘hcPartyId’ must be provided.
- If an ‘hcPartyId’ is provided, the ‘hcPartyIdType’ MUST also be provided.



- If the token role is “consult-carelink-orgcot” or “consult-carelink-orgnocot” then the elements ‘hcPartyId’ and ‘hcPartyIdType’ should not be used (must be missing). For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.

Warning: it is possible in the future to have a ban on the use of this element following a decision by BelRAI VL which still has to be taken. In that case, if provided then the request will be rejected.

The type of proof is never returned in the response (*proof* is always set to the value null).

Example:

```
GET
/carelinks/histories?patientSsin=9xxxxxxxxx1&hcPartyId=0xxxxxxxxx2&hcPartyIdType=cbe
```

5.5.1.2 Response

Success:

HTTP code 200 (Success) returned in case of a non-empty list of care links found.

➔ In this case, the body contains an array of link objects :

```
[
  {
    "patient": {
      "identifiers": [
        {
          "type": "ssin",
          "value": "12345678910"
        }
      ],
      "name": "patientName",
      "firstName": "patientFirstName"
    },
    "hcParty": {
      "identifiers": [
        {
          "type": "cbe",
          "value": "0123456789"
        }
      ],
      "name": "hcpName",
      "firstName": null,
      "qualificationCode": null
    },
    "type": "carelinktype",
    "startDate": "2020-01-23",
    "endDate": "2020-02-23",
    "proof": null
  }
]
```

HTTP code 204 (No content) returned in case no care link could be found matching the provided arguments.

➔ In this case, the body will be an empty array

```
[ ]
```

Failures:

For failure description please refer to section 8 of this cookbook.



5.6 GET /careLinks/Pages

The requests of type “GET” on path /careLinks/pages allows the user to retrieve the list of either active or future care links with pagination.

5.6.1.1 Request

queryParameter	Description
patientSsin (optional)	Social Security Identification Number (SSIN) of the patient concerned by the care link.
hcPartyId (optional)	Identifier of the HC party concerned by the care link. The HC Party can be a HC professional or an organization. The identification data if the HC party is a HC professional is : <ul style="list-style-type: none"> - An SSIN number The identification data if the HC party is an organization is either: <ul style="list-style-type: none"> - A CBE number (10 digits) - A NIHII number (8 digits or 11 digits) - An EHP number (10 digits)
hcPartyIdType (optional)	The type of identifier put in the field ‘ <i>hcPartyId</i> ’. This string can take four possible values: <ul style="list-style-type: none"> - “<i>ssin</i>” - “<i>nihii</i>” - “<i>cbe</i>” - “<i>ehp</i>”
linkType (optional)	The type of the care link to consult. Currently, 3 values are available for a care link linked to an organization : <ul style="list-style-type: none"> - ‘<i>careinstitutionremotcontact</i>’ - ‘<i>careinstitutiondaycare</i>’ - ‘<i>careinstitutionstay</i>’ The following value is available for a care link linked to an individual care provider : <ul style="list-style-type: none"> - ‘<i>carerelation</i>’ This argument can be specified as an array having multiple values
includeFuture (optional)	This boolean argument, if specified and set to “true”, states that the request must also match the inactive carelinks (beginning in the future).
pageSize (optional)	The parameter allowing to limit the number of entries in the result. The pagesize value is limited to a minimum of 10 and a maximum of 1500

	<p>If the 'pageSize' parameter is not specified then the first 100 care links are returned (By default the value is 100).</p> <p>The result are organized in descending chronological order.</p>
page (optional)	<p>This parameter allow select a specific page to display.</p> <p>By default the value is 1.</p>

Although all the arguments are declared as optional in the part of the swagger defining the GET operation, a few additional rules apply:

- If the token role is "consult-carelink-superuser", then at least one of 'patientSsin' or 'hcPartyId' must be provided.
- If an 'hcPartyId' is provided, the 'hcPartyIdType' MUST also be provided.
- If the token role is "consult-carelink-orgcot" or "consult-carelink-orgnocot" then the elements 'hcPartyId' and 'hcPartyIdType' should not be used (must be missing). For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.
- If pageSize value
 - o Must be valid numerical value (natural number)
 - o Must be in the range of minimum 100 & maximum 1500
- If page value
 - o Must be valid numerical value (natural number)
 - o Must not be above the total page value

The type of proof is never returned in the response ('proof' is always set to the value null).

Example:

```
GET
/careLinks/pages?patientSsin=9xxxxxxxx1&linkType=careinstitutiondaycare&page=2&pageSize=200
```

5.6.1.2 Response

Success:

HTTP code 200 (Success) returned in case of a non-empty list of care links found.

In this case, the body contains an array of link objects :

```
{
  "items": [
    {
      "endDate": "2024-03-26",
      "hcParty": {
        "firstName": "string",
        "identifiers": [
          {
            "type": "string",
            "value": "string"
          }
        ]
      }
    }
  ]
}
```



```

    ],
    "name": "string",
    "qualificationCode": "string"
  },
  "patient": {
    "firstName": "string",
    "identifiers": [
      {
        "type": "string",
        "value": "string"
      }
    ],
    "name": "string"
  },
  "proof": {
    "type": "string"
  },
  "startDate": "2024-03-26",
  "type": "string"
}
],
"next": "/careLinks?patientSsin=9xxxxxxxxxx&page=3&pageSize=200",
"page": 2,
"pageSize": 200,
"self": "/careLinks?patientSsin=9xxxxxxxxxx&page=2&pageSize=200",
"total": 500
}

```

HTTP code 204 (No content) returned in case no care link could be found matching the provided arguments.

In this case, the body will be an empty array

```
[ ]
```

Failures:

For failure description please refer to section 8 of this cookbook.

5.7 GET /careLinks/histories/pages

The requests of type "GET" on path /careLinks/histories/pages allow the user to retrieve the list of either inactive care links that expired in the past with pagination.

5.7.1.1 Request

queryParameter	Description
patientSsin (optional)	Social Security Identification Number (SSIN) of the patient concerned by the care links.
hcPartyId (optional)	Identifier of the HC party concerned by the care link.



	<p>The HC Party can be a HC professional or an organization.</p> <p>The identification data if the HC party is a HC professional is :</p> <ul style="list-style-type: none"> - An SSIN number <p>The identification data if the HC party is an organization is either:</p> <ul style="list-style-type: none"> - A CBE number (10 digits) - A NIHI number (8 digits or 11 digits) - An EHP number (10 digits)
hcPartyIdType (optional)	<p>The type of identifier put in the field '<i>hcPartyId</i>'. This string can take four possible values:</p> <ul style="list-style-type: none"> - "<i>ssin</i>" - "<i>nihii</i>" - "<i>cbe</i>" - "<i>ehp</i>"
linkType (optional)	<p>The type of the care link to consult.</p> <p>Currently, 3 values are available for a care link linked to an organization :</p> <ul style="list-style-type: none"> - '<i>careinstitutionremotcontact</i>' - '<i>careinstitutiondaycare</i>' - '<i>careinstitutionstay</i>' <p>The following value is available for a care link linked to an individual care provider :</p> <ul style="list-style-type: none"> - '<i>carerelation</i>' <p>This argument can be specified as an array having multiple values</p>
pageSize (optional)	<p>The parameter allowing to limit the number of entries in the result.</p> <p>The pagesize value is limited to a minimum of 10 and a maximum of 1500</p> <p>If the 'pageSize' parameter is not specified then the first 100 care links are returned (By default the value is 100).</p> <p>The result are organized in descending chronological order.</p>
page (optional)	<p>This parameter allow select a specific page to display.</p> <p>By default the value is 1.</p>

Although all the arguments are declared as optional in the part of the swagger defining the GET operation, a few additional rules apply:

- If the token role is "*consult-carelink-superuser*", then at least one of '*patientSsin*' or '*hcPartyId*' must be provided.
- If an '*hcPartyId*' is provided, the '*hcPartyIdType*' MUST also be provided.



- If the token role is “consult-carelink-orgcot” or “consult-carelink-orgnocot” then the elements ‘hcPartyId’ and ‘hcPartyIdType’ should not be used (must be missing). For these users, the hcParty concerned by the care link will be deduced from the identification data contained in the access token.

The type of proof is never returned in the response (‘proof’ is always set to the value null).

- If pageSize value
 - o Must be valid numerical value (natural number)
 - o Must be in the range of minimum 100 & maximum 1500
- If page value
 - o Must be valid numerical value (natural number)
 - o Must not be above the total page value

Example: With usage of page and pageSize

```
GET
/carelinks/histories/pages?patientSsin=9xxxxxxxxx1&hcPartyId=0xxxxxxxxx2&hcPartyIdType=cbe&page=2&pageSize=200
```

5.7.1.2 Response

Success:

HTTP code 200 (Success) returned in case of a non-empty list of care links found.

➔ In this case, the body contains an array of link objects :

```
{
  "items": [
    {
      "endDate": "2024-03-26",
      "hcParty": {
        "firstName": "string",
        "identifiers": [
          {
            "type": "string",
            "value": "string"
          }
        ],
        "name": "string",
        "qualificationCode": "string"
      },
      "patient": {
        "firstName": "string",
        "identifiers": [
          {
            "type": "string",
            "value": "string"
          }
        ],
        "name": "string"
      },
      "proof": {
        "type": "string"
      }
    }
  ]
}
```

```

    },
    "startDate": "2024-03-26",
    "type": "string"
  },
  {
    "endDate": "2024-03-26",
    "hcParty": {
      "firstName": "string",
      "identifiers": [
        {
          "type": "string",
          "value": "string"
        }
      ],
      "name": "string",
      "qualificationCode": "string"
    },
    "patient": {
      "firstName": "string",
      "identifiers": [
        {
          "type": "string",
          "value": "string"
        }
      ],
      "name": "string"
    },
    "proof": {
      "type": "string"
    },
    "startDate": "2024-03-26",
    "type": "string"
  }
],
"next": "/careLinks?patientSsin=9xxxxxxxx&page=3&pageSize=200",
"page": 2,
"pageSize": 200,
"self": "/careLinks?patientSsin=9xxxxxxxx&page=2&pageSize=200",
"total": 500
}

```

HTTP code 204 (No content) returned in case no care link could be found matching the provided arguments.

➔ In this case, the body will be an empty array

```
[ ]
```

Failures:

For failure description please refer to section 8 of this cookbook.





6. Risks and security

6.1 Risks & safety

6.2 Security

6.2.1 Business security

In case the development adds an additional use case based on an existing integration, the eHealth platform must be informed at least one month in advance with a detailed estimate of the expected load. This will ensure an effective capacity management.

In case of technical issues on the WS, the partner may obtain support from the contact center.

In case the eHealth platform finds a bug or vulnerability in its software, the partner is advised to update his application with the newest version of the software within 10 business days.

In case the partner finds a bug or vulnerability in the software or web service that the eHealth platform delivered, he is obliged to contact and inform the eHealth platform immediately and he is not allowed to publish this bug or vulnerability in any case.

6.2.2 The use of username, password and token

The username, password and token are strictly personal and are not allowed to transfer.

Every user takes care of his username, password and token and is forced to confidentiality of it. Every user is also responsible for every use, which includes the use by a third party, until the inactivation.

7. Implementation aspects

7.1 Procedure

This chapter explains the procedures for testing and releasing an application in acceptance or production.

7.1.1 Initiation

If you intend to use the eHealth platform service, please contact info@ehealth.fgov.be. The project department will provide you with the necessary information and mandatory documents.

7.1.2 Development and test procedure

You have to develop a client in order to connect to our WS. Most of the required integration info to integrate is published on the portal of the eHealth platform.

Upon request, the eHealth platform provides you with test cases (see *Request Test Case template*) in order for you to test your client before releasing it in the acceptance environment.

7.1.3 Release procedure

When development tests are successful, you can request to access the acceptance environment of the eHealth platform. From this moment, you start the integration and acceptance tests. The eHealth platform suggests testing during minimum one month.

After successful acceptance tests, the partner sends his test results and performance results with a sample of “eHealth request” and “eHealth answer” by email to his point of contact at the eHealth platform.

Then the eHealth platform and the partner agree on a release date. The eHealth platform prepares the connection to the production environment and provides the partner with the necessary information. During the release day, the partner provides the eHealth platform with feedback on the test and performance tests.

For further information and instructions, please contact: integration-support@ehealth.fgov.be.

7.1.4 Operational follow-up

Once in production, the partner using the eHealth platform service for one of his applications will always test first in the acceptance environment before releasing any adaptations of its application in production. In addition, he will inform the eHealth platform on the progress and test period.

8. Error and failure messages

8.1 HTTP codes

8.1.1 HTTP 2xx

The meaning of 2xx HTTP codes is described in each Operation in section 5 of this document.

8.1.2 HTTP 500

This code means that an internal technical error occurred during the processing of the request.

This does not necessarily mean that the error is not due to a wrong input in the request.

Please double-check that your request is correct before reaching to the helpdesk.

8.1.3 HTTP 400

This code means that the request could not be performed due to a validation error.

The body returned explains what went wrong in your request.

Example:

```
[
  {
    "code": "ERR042",
    "message": "Link already exists."
  }
]
```

Here are the possible values that you can get in the body for the “400” errors:

ERR004	"The provided hcParty identifier: {[hcParty.id]} is different than HCParty identifier in token: {[token.hcp.id]}."
ERR005	"The provided patient.identifiers.type cannot be blank."
ERR006	"The provided patient.identifiers.type: {[patient.identifiers.type]} is incorrect. It should be one of following values : [ssin cardNumber]."
ERR007	"The patient ssin is mandatory and cannot be missing."
ERR008	"The provided patient ssin cannot be blank."
ERR009	"The provided patient ssin: {[patient.id]} has an incorrect length. Length should be 11. Got {[patient.id.length]}."
ERR010	"The provided patient ssin: {[patient.id]} can only contain digits."
ERR011	"The provided patient ssin: {[patient.id]} has an incorrect checksum."
ERR012	"The provided patient ssin is incorrect: multiple patient ssin is forbidden."
ERR013	"The cardNumber cannot be missing when the proof type is provided and contains one of following values : [eidreading isireading phone_call contract eidencoding_nocard eidencoding_housecall eidencoding_techproblem]."
ERR014	"The provided cardNumber cannot be blank."
ERR016	"The provided cardNumber is incorrect: multiple cardNumber is forbidden."
ERR017	"The patient name cannot be missing and must contain at least one non-empty character."
ERR018	"The provided patient name cannot be blank."

ERR019	"The provided hcParty.identifiers.type: {\${hcParty.identifiers.type}} is incorrect. It should be one of following values : [nihii ehP cbe]."
ERR020	"The provided hcParty.identifiers.type: {\${hcParty.identifiers.type}} is forbidden for the user."
ERR022	"The provided hcParty identifier: {\${hcParty.id}} can only contain digits."
ERR023	"The provided hcParty identifier: {\${hcParty.id}} has an incorrect length. Length should be 10. Got {\${hcParty.id.length()}. "
ERR024	" The provided hcParty identifier: {\${hcParty.id}} has an incorrect length. Length should be 11. Got {\${hcParty.id.length()}. "
ERR025	"The provided hcParty identifier: {\${hcParty.id}} has an incorrect checksum."
ERR029	"The provided proof type cannot be blank. It should be one of following values : [eidreading isireading phone_call contract eidencoding_nocard eidencoding_housecall eidencoding_techproblem]."
ERR030	"The provided proof type: {\${proof}} is incorrect. It should be one of following values : [eidreading isireading phone_call contract eidencoding_nocard eidencoding_housecall eidencoding_techproblem]."
ERR031	"The provided proof type: {\${proof}} is forbidden for the user if the provided link type is: {\${type}}. It should be one of following values: [phone_call]."
ERR032	"Startdate and enddate are forbidden for proof other than contract. Got {0}."
ERR033	"The provided startDate: {\${startDate}} is incorrect. startDate must be greater or equal than the declaration date."
ERR034	The provided endDate: {\${endDate}} is incorrect. endDate must be greater than the startDate.
ERR035	"The provided link type cannot be blank. It should be one of following values : [careinstitutionremotcontact careinstitutiondaycare careinstitutionstay]."
ERR036	"The provided link type: {\${type}} is incorrect. It should be one of following values : [careinstitutionremotcontact careinstitutiondaycare careinstitutionstay]."
ERR041	"The provided cardNumber: {\${cardNumber}} does not correspond to the patient ssin."
ERR042	"Link already exists."
ERR043	"No Link found."
ERR044	"The provided patient ssin: [{0}] is malformed."
ERR046	"The use of the hcParty is mandatory for the user."
ERR047	"The provided hcParty identifier: {\${hcParty.id}} has an incorrect length. Length should be 8 or 11. Got {\${hcParty.id.length()}. "
ERR048	The provided hcParty identifier: [{\${hcParty.id}}] is malformed.
ERR049	"The provided proof type: {\${proof}} is forbidden for a newborn. It should be missing or one of following values: [phone_call contract]."
ERR051	"At least the patient ssin or the hcParty identifier should be specified."
ERR052	"The use of the hcParty is forbidden for the user."
ERR053	"The hcParty identifier and hcParty.identifiers.type must be used together."
ERR054	"The provided link type: {\${type}} is incorrect. It should be one of following values : [careinstitutionremotcontact careinstitutiondaycare careinstitutionstay carerelation]."
ERR055	"The provided page value is not the expected value. It should be a numerical value"
ERR056	"The provided page value is not the expected value. It should be a valid number (start at 1)"
ERR057	"The provided page value is greater than the total page value"
ERR058	"The provided pagesize value is not the expected value. It should be a numerical value"

ERR059	"The provided pagesize value is not the expected value. The maximum size is 1500"
ERR060	"The provided pagesize value is not the expected value. The minimum size is 1"

9. Annex 1 – Claim structure

This section explains the structure of the claims that allow to define the authorized users.

9.1 Organization (No-AR78)

To define an organization as authorized user, the JSON Web token of the user must contain the following attributes :

- The chosen profile : ORGANIZATION
- The information about the organization
 - The identifier of the organization (required)
 - The type of the organization (required)
 - The name of the organization (required)

```
"profile_option": "ORGANIZATION",  
  
  "org": {  
    "type": "ENTERPRISE",  
    "name": "Name of the organization",  
    "id": "1234567890"  
  }
```

This is the list of organization qualities available:

- ENTERPRISE, TREAT_CENTER, CONSORTIUM (type: cbe)
- EHP, CTRL_ORGANISM (id type: ehp)
- All entities recognized by NIHII (id type: nihii)