Service Level Agreement
Base Service: eH2eBox
Version 1.0

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eHealth platform

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Service Level Agreement

Base Service eH2eBox

Between

Service provider

    eHealth Platform

    Quai de Willebroeck, 38

    1000 BRUXELLES

Service customer

    User Community

To the attention of: the user community

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Table of Content

1. Document management

1.1. Document history

Version	Date	Author	Description of changes / remarks
1.0	April 6th, 2020	eHealth Service Management	Initial Version

1.2. Document references

ID	Title	Version	Date	Author
	Bestuursovereenkomst			
	Master Service Agreement	5.0	23/06/2016	

1.3. Purpose of the document

The objective of this document is to define the Service Level Agreement for the set of *Base Service eH2eBox* proposed by the eHealth platform to publish and consult data in the common base registry for healthcare actors. It defines the minimum level of service offered on the eHealth platform, and provides eHealth's own understanding of service level offering, its measurement methods and its objectives in the long run.

This document contains a short description of the set of services offered by the common base registry for healthcare actors. These services should be distinguished into batch services and web services[1] for which SLA will be different. Batch services essentially correspond to file exchange for which results will be asynchronous while consultation and publication web services will be synchronous.

In addition, this document contains a short description of, or a link to a location where such a description can be found:

- some of the dependencies on technical and/or functional components needed and used by the web services,

- some technical and/or functional components on which the Services are dependent,

- measurements and KPIs intended to account for a certain number of performance indicators.

This document is a complement to the *Master Service Agreement (MSA)*. The information given in this document version takes precedence over the data regarding the same subjects given in former versions and in the MSA. Items described in the MSA include, for instance:

- a broad description of the business services offered by the eHealth platform to the applications which may want to make use of them,

- description of cross-sectional services offered on the eHealth platform,

- description of support services, including registering, managing and solving possible incidents with the eH2eBox suite of services, managing changes,

- performance indicators related to those services.

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[1] *In order to use those web services, an interface needs to be built, operated and maintained by the client application supplier as described in the cookbooks.*

1.4. Validity of the Agreement

This document is valid as long as the *Base Service eH2eBox* is part of the eHealth offering.

Once a year, the levels of service proposed will be reviewed and confirmed for the next year.

1.5. Service and Maintenance Windows

1.5.1. Service Windows

The time frame during which the eHealth services are offered to the client applications, is defined in terms of days and hours. Standard working days are all days of the year, except during the biannual maintenance periods. The default service windows defined in the MSA (Chapter 5.1.1 Service, Support and Maintenance Window) is applicable for this SLA.

The following table summarises the eHealth Service Windows.

Service Window								
		Day of the week (closing days of Service Provider = Sunday)						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day period	00:00 – 07:00							
	07:00 – 08:00							
	08:00 – 16:30							
	16:30 – 19:00							
	19:00 – 24:00							

Legend	
🟩	Timeslots where the Service must be available according to the SLA and where corrective actions will be taken to resolve detected Incidents.
🟩	Timeslots where the Service will be available provided there are no blocking Incidents. If these incidents do appear, no corrective action will be taken.
🟧	Timeslots where unavailability can occur.

1.5.2. Support Window

The default support windows defined in the MSA (Chapter 5.1.1 service, Support and Maintenance window) is applicable for this SLA.

Support Window								
		Day of the week (Closing day of the eHealth platform = Sunday)						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day period	00:00 – 07:00							
	07:00 – 08:00							
	08:00 – 16:30							
	16:30 – 19:00							
	19:00 – 20:00							
	20:00 – 24:00							

Legend	
	Timeslots during which the eHealth Contact Center is available for the End-Users with a second line support for Infrastructure (HW, OS, Middleware and DB)
	Timeslots during which the eHealth Contact Center is available for the End-Users with a second line support, including the Application Support
	Timeslots during which the eHealth Contact Center is unavailable for the End-Users. The End-User will have the possibility to record a voice message that will be treated on the next working day.

1.5.3. Maintenance Windows & Planned Interventions

The eHealth platform will strive for limiting as much as possible the impact and duration of the planned interventions. Today, the eHealth platform is committed to make efforts so planned unavailability's do not exceed one to a few hours per year.

Portal, Network interventions and application release: 2 times a year.
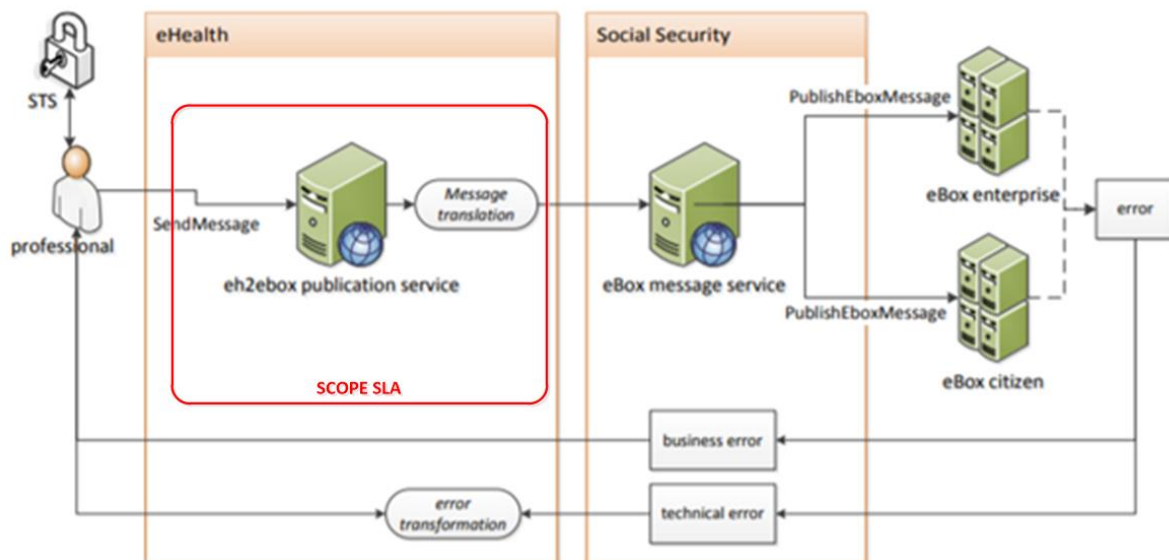
1.5.4. Unplanned Interventions

In exceptional circumstances, unplanned interventions may be needed in order to restore the service.

2. Service scope

2.1. eHealth Service

2.1.1. Architecture overview

High level overview diagram:

2.1.2. Functionality

The eH2eBox is a web service (WS) allowing professionals to send messages to the Social Security eBox via the eHBox interface. The eH2eBox sends messages, according to an analog message structure of the eHealthBox, and translates them so they are compatible with the Social Security eBox.

More technically: the incoming request to send a message, coming from the end user, is translated at the level of the eHealth platform and sent to the parallel request on the eBox backend. Depending on the sender, this is the enterprise or citizen backend.

2.2. Business criticality

The Service Level Criticality (as described in the MSA) for this on-line Basic Service is **GOLD**.

2.3. Interdependencies

The services covered by this Service Level Agreement are functionally dependent upon

- Authentic sources data update frequencies and data qualities
- Services offered by CBSS and CBE for data respectively concerning Belgian physical person recognised by Belgian National register and Belgian companies recognised by CBE.

The eH2eBox services depend on the Certification eHealth base service to ensure that only authorised entities can have access to these services either web app or web services.

3. List of Service Levels

Service	KPI	SL ID	Condition	Measure based on	Limit	Service Window	Objective Committed	Objective Target
eHBox2eBox	Availability eH2eBox WS		Transaction passes	Fictitious request		Mo – Su 0:00 – 24:00	99,5%	99,9%
	Performance eH2eBox WS		Response time ≤ 4 sec	Real transactions		Mo – Su 0:00 – 24:00	N/A	95%

Table 1 : List of key performance indicators (KPI) per functionality in iteration 1

4. Detailed Service Level

4.1.1. Availability eH2eBox web service

Objectives				
Definition	- The eHealth web service eH2eBox is considered to be available when the following sequence ends successfully: - Publish an eHbox message - Receive a SUCCES code in the response - Planned interventions executed within the Maintenance Window are not recorded as unavailable time.			
Measuring method	- The availability of the different functionalities is measured by executing the test scripts every 5 minutes. When the script is executed with as result a Status "OK", the test "passed". - When the script is executed with another result, the test "failed" - Measuring is always done on test scenarios			
Calculation	$$Availability = \frac{\sum Passed\,Tests\;x\;100}{\sum Total\,Tests}\%$$ - Total Tests = Total number of tests launched within corrected timeframe - Passed Tests = Total number of tests that resulted in a status "OK" within the same timeframe - Corrections are applicable on tests that are not taken into account because they were caused: - by a Validated Authentic Source or partner application out of scope of this SLA - by a failing monitoring tool			
Reporting and evaluation period	- The availability is calculated and reported monthly. Corrective interventions are initiated when appropriate. - The formal evaluation however is done on a yearly basis.			
Service Level Objectives	**Functionality**	**Service Window**	**Service Level Objective**	
			Committed	**Target**
	Availability eH2eBox WS	Mo – Su 0:00 – 24:00	99,5%	99,9%

4.1.1.1. Definition(s)

Percentage of time the interactive querying service has been available from a user point of view (based on real transactions).

4.1.1.2. KPI Objectives

Ensure that the specific interactive web service is available on the eHealth platform.

The service is considered as available when it provides a successful response at each access. Successful responses are all Front Web Service responses which do not mention the unavailability of a component needed to route a request from its reception at a Front Web Service till the answer is delivered. Poor request formulations (e.g. bad NISS) which provide an error message, are considered as successful transactions when this error message is not related to a component failure.

4.1.1.3. Measurement method

A hit is an access to the Front Web Service of eHealth.

A <u>successful hit</u> is an access to the Front Web Service of eHealth with a response excluding any component unavailability.

Therefore, it measures the availability of the querying service at the Front Web Service.

4.1.1.4. KPI Formula

EA = (Σ NSH / Σ NH) x 100

where

NSH = Number of Successful Hits

NH = Number of well-formed Hits received

4.1.1.5. Calculation window

Monthly (with a minimum of 100 hits per month).

4.1.2. Performance eH2eBox web service

Objectives			

Definition	• The performance of the eHealth eH2eBox web service refers to its response time. Response time meaning the time needed to execute a request. This request can be:
	    o Send Message (depends on Social Security)
	• Attention: The response time does not include:
	    o The time needed to deliver the information over the Internet
	    o The time needed to process the information at the End Users premises.		

Measuring method	• This response time is measured on the Reverse Proxies. Both start time (request received) and stop time (answer sent to the End User) are measured and stored in a database. • Measuring is done on real transactions, and only on those having a "stop time" within the measuring period.		
Calculation	• All response times are calculated: Stop time – Start time for every request. • The percentage that meets the target is calculated based on following formula: $$Performance = \frac{\sum Tests\,meeting\,the\,target \; x\; 100}{\sum Total\,Tests}\%$$		
Reporting and evaluation period	• The performance is calculated and reported monthly. Corrective interventions are initiated when appropriate. • The formal evaluation however is done on a yearly basis. • Only target (no commitment) is possible as it depends on external resources, out of the scope of the SLA.		

Service Level Objectives	Functionality	Target	Service Level Objective	
			Committed	**Target**
	Performance eH2eBox ws	< 4 sec	N/A	95,0%

4.1.3. Response time (RT)

4.1.3.1. Definition(s)

Time spent between receiving a request on the eHealth infrastructure and making the answer available to the client application.

4.1.3.2. KPI Objectives

Ensure that each eH2eBox web service request handled through the eHealth platform is being processed within the response time limit (see Table 1). It ensures the follow-up of the web service performance.

4.1.3.3. Measurement method

The response time is the answering time registered for all successful requests, as obtained from logs of incoming and outgoing requests on the Reverse Proxies.

The key performance indicator measures the percentile corresponding to values below the response time limit.

4.1.3.4.   KPI Formula

Compute the percentile corresponding to values below the agreed KPI for the response time

$$RT = \frac{\Sigma \ (\text{successful request with an answering time within the response time limit})}{\Sigma \ (\text{successful request})} \times 100\ \%$$

4.1.3.5.   Calculation window

Monthly (with a minimum of 100 hits per month).